



THE CEYLON MEDICAL JOURNAL

ESTABLISHED 1887

Volume 71, S, July 2026

The Sri Lanka Medical Association

139th Anniversary International Medical Congress

Abstracts

Oral Presentations	List of Presentations	Page	S3-S7
	Abstracts	Page	S8-S35
Poster Presentations	List of Presentations	Page	S36-78
	Abstracts	Page	S79-450

SRI LANKA MEDICAL ASSOCIATION QUARTERLY

Oral Presentations

Free Paper Session 1

- OP1 Artificial Intelligence–Enabled Wearable Devices for Atrial Fibrillation Detection with Cryptogenic Stroke or Transient Ischaemic Attack: Systematic Review and Meta-Analysis**
Abeykoon AMDP, Bandara KMNS
- OP2 Outcomes of Microwave Ablation for Early Hepatocellular Carcinoma: A Single Tertiary Centre Experience from Sri Lanka**
Appuhamy C, Tennakoon K, Eritawala I, Basnayake C, Dassanayake U, Tillakaratne S, Siriwardana R, Niriella M
- OP3 Is the Gender Gap in Colorectal Cancer Changing A Sex-Disaggregated Trend Analysis in Sri Lanka, 2006–2022**
Lakshitha KH, Jayakody SL, Jinujaan S, Alles CNRA, Soysa HNS
- OP4 Infra-Inguinal Angiographic Patterns in Patients with Chronic Kidney Disease and Chronic Limb-Threatening Ischemia and Implications for Endovascular Outcomes: The first Sri Lankan Study**
Siriwardana R, Thushan Gooneratne, Rezni Cassim, Hansani Hegodagedara, Joel Arudchelvam
- OP5 Occupational, Economic and Psychosocial Impact of Hyperthyroidism – Determinants from a Multicenter Study from Sri Lanka**
Bandara DMTD, Gamage S, Ratnayake DV, Bulugahapitiya U, Sumanatilleke M, Siyambalapitiya S, Antonypillai C, Meegodawidanage N, Garusingha C, Katulanda P
- OP6 A secondary data analysis of flood events and their human and housing impact in Sri Lanka from 2010 to 2025**
Waidyatilleke SR, Hettiarachchi TH, Dharmaratne SD

Free Paper Session 2

OP7 Changing Epidemiology of Inflammatory Bowel Disease in a Low- and Middle-Income Country: A 20-Year Experience from a Multi-Centre, Nationwide Survey from Sri Lanka

Niriella M, Jayasena H, Gunarathna WPV, Abeynayake DR, Aryasingha S, Kumarasena S, Senanayake M, Fernandopulle N, Upanishad RGI, Dinamithra NP, Wijewantha HS, Keppetiyagama C, Balendran K, Kajendran A, Liyanaarachchi T, Subasinghe D, Peiris R, Subasinghe CE, Piyarathna C, Kumara RAC, Herath PR, Kesavan T, Thalagala E, Perera KRPP, Aponso T, Vijitharan V, Rishikesavan V, Wanniarachchi N, Kusumpokuna A, Senanayake H

OP8 Determinants of Disease Severity and Outcomes in Hospitalised Patients with Dengue Infection in a Tertiary Care Centre in Colombo District: An Interim Analysis

Manilgama SR, Bhishman S, Hewage ND, Wellappuli WADY, Ganepola D

OP9 Prevalence and severity of sarcopenia in advanced chronic liver disease: association with disease stage, gender, etiology and nutritional status in a specialised liver centre in Sri Lanka

Balasooriya BMC, Samarasekara TG, Dasanayake U, Cooray MRC, Pahlavithana LTD, Rathnayake RMYJ

OP10 Impact of the Ward-Based Clinical Pharmacy Services on Medication Appropriateness and Quality of Life Among Oncology Patients: A Non-Randomised Controlled Trial

Chandrasena WMHNM, Kalpani AGS, Firman P, Shanika LGT, Jayamanne SF

OP11 Antenatal depression and anxiety and its associated factors among pregnant mothers in the Colombo RDHS area

Mohideen S, Weliange S, De Silva C

OP12 Association between early hemoglobin level and immediate outcome of moderate and severe traumatic brain injury

Weeratunga D, Ekanayake EMSB

OP13 No One Left Behind: Improving Retention in the Tuberculosis Infection Cascade Among High-Risk Groups in Galle district, Sri Lanka

Free Paper Session 3

- OP14 Estimated Glomerular Filtration Rate as a Continuous Predictor of Haematological Decline and Independent Determinant of Anaemia in Chronic Kidney Disease Evidence from Teaching Hospital, Jaffna.**
Sangavi T, Karthiga M, Kanistan J, Thangarajah BR, Arasaratnam V
- OP15 Relationship between ankle proprioception and functional mobility of subacute post-stroke patients at Rheumatology and Rehabilitation Hospital Ragama, Sri Lanka.**
Perera D, Lanka L, Umayangani A, Dabre P
- OP16 Impact of Climate Variability on Leptospirosis Incidence in Kurunegala District, Sri Lanka (2015–2024): An ecological Time Series analysis**
Lakshitha AMPC
- OP17 Hidden burden of Strongyloides and Enterobius in Anuradhapura: Gaps in intestinal helminth surveillance**
Jayakody NK, Gordon CA, Silva NKA, Wickramasinghe ND, Wickramasinghe WDSJ, Collinson N, Wijayasekara MAAE, Karunarathne CB, De Silva NR, Weerakoon KG
- OP18 Improving survival in infant liver transplantation through cross-border collaboration: a national experience**
Fernando M, Tennakoon K, Tillakaratne MSB, Weerasuriya A, Narasimhan G, Gunetilleke B, Liyanage C, Withanage R, Appuhamy C, Thanthiriwaththa CD, Siriwardana RC
- OP19 “Bundles of Hope”: Impact of a Quality Improvement Care Bundle on Mortality and Morbidity in a Tertiary Neonatal Intensive Care Unit at Teaching Hospital Badulla, Sri Lanka.**
Hassan MHSM
- OP20 Delivery outcomes across maternal glycemic status: A prospective cohort study from two tertiary care hospitals in Western Sri Lanka.**
Sasikanth T, Katulanda P, Wickramasinghe WKVK, Fernando DR, Kaluarachchi A, Dodampahala SH, Jayawardena DBIA, Ranaweera AKP, Rishard MRM, Jayasundara C, Piyadigama I, Katulanda GW, Kadotgajan T, Lanerolle S

Free Paper Session 4

- OP21 Haemolysis and haemoglobin dynamics in multi-drug therapy for leprosy: predictors and patterns**
Arudchelvam U, Thubellage DS, De Silva TSD, Kahawita IP
- OP22 Associated factors of osteoporosis among adults aged 30 – 70 years attending tertiary care hospitals in Western Province, Sri Lanka: A case control study**
Muhandiram U, Wijesinghe S, Maduwage S
- OP23 Association of Fatty Liver Index and Ultrasound-Detected Hepatic Steatosis with Acute Coronary Syndrome in a Sri Lankan Tertiary Care Cohort**
Kularathna MRCL, Ralapanawa DMPUK, Udupihille J, Tennakoon SUB
- OP24 Diagnostic value of on-admission haematological and biochemical parameters in differentiating patients with dengue fever, leptospirosis, and sepsis**
Vidanapathirana DS, Wickramasinghe WSM, Dassanayake HD, Chandraratne A, Weerasekera MM, Joseph PA, Priyankara D, Rambukwella R, Perera N
- OP25 Clinical Spectrum and Quality of Life in Atypical Parkinsonian Disorders in Sri Lanka: Preliminary Results from a Multicentre GP2 Collaborative Study**
Velummylum V, Pathirage AI, Ruwanpathirana PS, Senanayake BSN
- OP26 Clinical Analysis of Progressive Supranuclear Palsy in Sri Lanka: Preliminary Results from a Cross-Sectional Collaborative Study with Global Parkinson's Genetics Program (GP2)**
Pathirage AI, Velummylum V, Ruwanpathirana PS, Senanayake BSN
- OP27 Patterns and predictors of uncontrolled hypertension among adults with hypertension in Sri Lanka**
Rathnayake N, Mettananda C, Jayaweerabandara D, Kumanan T, Ralapanawa U, Thangarajah B, Manchanayake M, Jeyapragasam H, Ranasinghe P
- OP28 Health care delivery related factors associated with Adult vaccine hesitancy against epidemic-prone diseases in Anuradhapura district, Sri Lanka**
Dharmasoma UWNK, Agampodi SB, Agampodi TC, Herath I, Hashini P, Kanapathy R, Wickramasinghe WAND

ABSTRACTS OF ORAL PRESENTATIONS

Free Paper Session 1

OP1

Artificial Intelligence–Enabled Wearable Devices for Atrial Fibrillation Detection with Cryptogenic Stroke or Transient Ischaemic Attack: Systematic Review and Meta-Analysis

Abeykoon AMDP¹ Bandara KMNS²

¹ Faculty of Medicine, University of Colombo, Colombo, Sri Lanka

² Casey Super Clinic, Victoria, Australia

Introduction and Objectives

Cryptogenic stroke and transient ischaemic attack (TIA) account for a substantial proportion of cerebrovascular events, with paroxysmal atrial fibrillation (pAF) often detected only through prolonged monitoring. Artificial intelligence (AI)–enabled wearable devices have emerged as potential tools for AF detection. This study aimed to evaluate the diagnostic yield and clinical utility of AI-enabled wearable monitoring in patients with cryptogenic stroke or TIA.

Methods

A systematic review and meta-analysis was conducted in accordance with PRISMA 2020 guidelines. MEDLINE, EMBASE, Cochrane CENTRAL, Scopus, Web of Science, and IEEE Xplore were searched. Randomised controlled trials, cohort studies, & registry data evaluating AI-enabled wearable devices were included.

The primary outcome was AF detection yield, pooled as relative risk (RR) using a random-effects model. Diagnostic accuracy outcomes were analysed separately using a bivariate model. Risk of bias and certainty of evidence were assessed using standard tools.

Results

Twenty-five studies (N = 5,896) were included. AF detection was higher with AI-enabled wearable monitoring (15.5%) compared with standard monitoring (5.5%) (RR 2.74, 95% CI 2.16–3.48). Heterogeneity was moderate ($I^2 = 67.8\%$), with a prediction interval of 1.06–7.07.

Detection increased with longer monitoring duration (RR 1.92 for <14 days vs 3.06 for ≥ 30 days; $p < 0.01$). Pooled sensitivity was 86.3% and specificity 93.9%. The estimated number needed to screen was approximately 10.

Conclusions

AI-enabled wearable devices are associated with increased AF detection following cryptogenic stroke or TIA. Effectiveness varies across settings, & longer monitoring improves yield. Further studies are required to determine optimal integration into clinical practice.

Outcomes of Microwave Ablation for Early Hepatocellular Carcinoma: A Single Tertiary Centre Experience from Sri Lanka

Appuhamy C¹, Tennakoon K¹, Epitawala I¹, Basnayake C¹, Dassanayake U¹, Tillakaratne S¹, Siriwardana R¹, Niriella M¹.

¹*Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka.*

Background: Microwave ablation (MWA) is an established curative treatment for early hepatocellular carcinoma (HCC), yet real-world outcome data from South Asia remain scarce.

Methods: This retrospective study evaluated oncological outcomes in patients with early HCC (BCLC 0–A) treated with MWA at a single tertiary centre (2021–2025). Eligible patients were ≥18 years with confirmed HCC, ≤3 lesions (maximum diameter ≤4 cm), and underwent first-time MWA. Those with advanced disease, macrovascular invasion, extrahepatic metastases, or incomplete records were excluded. Demographics, liver function (Child-Pugh class, MELD score), tumour characteristics (number, location, size), and outcomes (complete ablation, residual disease, recurrence, overall survival) were analysed.

Results: 186 patients were included (mean age-66±7.8 years; 77.4%-male). Cirrhosis was present in 73.7%: Child-Pugh A-73.3%, B-21.4%, C-5.3%; mean MELD-5.26 (±3.26). Comorbidities: diabetes mellitus-53.7%, hypertension-29.3%. Solitary tumour in 80.1%, two lesions in 14.0%, three in 5.9%; most frequent site segment VIII (25.8%). Median tumour size 2.5 cm (IQR 2.0–3.3 cm); median AFP 13.1 ng/mL (IQR 3.4–39.3). No major complications occurred. Complete ablation was achieved in 94.1% (174/186); residual tumour in 5.9% and local progression in 0.5%. Recurrence was detected in 32.7% (61/186) and the overall survival was 88.2% at up to four years.

Conclusion: In one of the first Sri Lankan analyses of MWA for early HCC, the procedure demonstrated high complete ablation rates and favourable survival in a predominantly Child-Pugh A cohort. These findings support MWA as an effective curative-intent therapy. Prospective studies are needed to identify predictors of recurrence and optimise patient selection.

Is the Gender Gap in Colorectal Cancer Changing? A Sex-Disaggregated Trend Analysis in Sri Lanka, 2006–2022

Lakshitha KH¹, Jayakody SL², Jinujaan S¹, Alles CNRA¹, Soysa HNS^{2,3}

¹*Department of Biochemistry, Faculty of Medicine, University of Peradeniya*

²*Center for Research in Oral Cancer, Faculty of Dental Sciences, University of Peradeniya*

³*Department of Oral Medicine and Periodontology, Faculty of Dental Sciences, University of Peradeniya*

Introduction & Objectives Colorectal cancer (CRC) affects men more than women, yet whether this sex gap shifts over time remains poorly documented in South Asian populations. This study examined temporal trends in the male-to-female ASIR ratio of CRC in Sri Lanka from 2006 to 2022.

Methods Cancer count data from the National Cancer Registry were extracted across three ICD-coded subsites: colon, rectosigmoid, and rectum, combined into an overall colorectal category. ASIR was computed for each sex. The male-to-female ASIR ratio and standard error were modeled on a natural logarithmic scale using NCI Joinpoint Regression Software. AAPC with 95% CI assessed trend direction and significance at $\alpha=0.05$.

Results The male-to-female ASIR ratio showed no significant temporal change across any subsite — colon: 0.54% (95% CI: -0.64 to 1.74; $p=0.347$), rectosigmoid: -1.49% (95% CI: -3.17 to 0.22; $p=0.083$), rectum: 0.38% (95% CI: -0.70 to 1.46; $p=0.469$), overall colorectal: -0.10% (95% CI: -0.99 to 0.80; $p=0.820$). Despite this stable ratio, ASIRs rose significantly in both sexes (all $p<0.000001$). Steepest rise was in rectosigmoid — male AAPC: 10.97% (95% CI: 7.60 to 14.44), female: 11.03% (95% CI: 9.75 to 14.17). Overall colorectal AAPCs were 7.78% (95% CI: 6.43 to 9.15) for males and 7.93% (95% CI: 6.41 to 9.46) for females.

Conclusions CRC incidence rose sharply in both sexes, yet the sex ratio held stable across all subsites, suggesting shared risk factors and warrants continued sex-disaggregated surveillance to detect any emerging shift in the gender distribution of CRC.

Infra-Inguinal Angiographic Patterns in Patients with Chronic Kidney Disease and Chronic Limb-Threatening Ischemia and Implications for Endovascular Outcomes: The first Sri Lankan Study

Thushan Gooneratne¹, Rukshan Siriwardana¹, Rezni Cassim¹, Hansani Hegodagedara¹, Joel Arudchelvam¹

¹*Vascular and Transplant Unit, Faculty of Medicine, University of Colombo, Sri Lanka*

Background: Chronic kidney disease (CKD) worsens Chronic Limb-Threatening Ischaemia (CLTI). This study highlights infra-inguinal angiographic-patterns and post-angioplasty outcomes in Sri Lankan CKD-CLTI patients, benchmarking local anatomy against the international "Renal Foot" model.

Methods: We reviewed Digital Subtraction Angiograms of 175 patients at a single center from 2024 January - 2026 January. Anatomical disease burden was stratified using the GLASS classification system.

Results: Non-CKD patients exhibited higher rates of severe proximal disease (femoropopliteal grade ≥ 3 : 23.9% vs. 8.6%, $p=0.015$). Conversely, CKD patients demonstrated significant distal disease characterized by severe infra-popliteal involvement (infra-popliteal grade ≥ 3 : 43.1% vs. 37.6%, $p=0.048$) resulting in poor run-off (95.6% vs. 85.3%, $p=0.025$) to the foot with high rates of infra-malleolar pedal arch disruption (P2 disease: 51.2% vs. 24.3%, $p=0.002$). In the "Local Renal Foot" phenotype, Anterior Tibial Artery (ATA) showed significant multifocal, critical stenoses (51.7% vs. 27.6%, $p=0.05$), Posterior Tibial Artery (PTA) showed long-segment, continuous occlusions (67.2% vs. 15.5%, $p<0.001$) and Peroneal Artery (PA) was relatively preserved, showing higher baseline patency (25.9%) than the ATA (5.2%) or PTA (10.3%). CKD patients had significantly higher rates of ATA stenosis (67.2% vs. 50.0%, $p=0.031$) and PTA occlusion (74.1% vs. 59.0%, $p=0.049$) compared to non-CKD group. Post-angioplasty outcomes in the CKD cohort demonstrated lower trends for immediate technical success (62.5% vs. 80.0%, $p=0.125$) and significantly lower mean amputation-free survival compared to non – CKD (12.0 vs 14.0 months, $p=0.027$).

Conclusions: Sri Lankan CKD-CLTI patients exhibit complex infra-malleolar macroangiopathy that lowers technical success, necessitating tailored, innovative revascularisation strategies.

OP5

Occupational, Economic and Psychosocial Impact of Hyperthyroidism – Determinants from a Multicenter Study from Sri Lanka

Bandara TD¹, Gamage S¹, Rathnayake DV², Bulugahapitiya U⁴, Sumanatilleke M⁴, Siyambalapitiya S⁵, Antonypillai C⁶, Meegodawidanage N.⁷, Garusinghe C⁷, Katulanda P³

¹*Diabetes Research Unit, Department of Clinical Medicine, Faculty of Medicine, University of Colombo*

²*University of Birmingham, England*

³*Department of Clinical Medicine, Faculty of Medicine, University of Colombo*

⁴*National Hospital of Sri Lanka, Colombo 8*

⁵*Colombo North Teaching Hospital, Ragama*

⁶*National Hospital, Kandy*

⁷*Colombo South Teaching Hospital, Kalubowila*

Introduction: Hyperthyroidism, although due to excess circulating thyroxine, can affect multiple systems and is associated with long-term morbidity and mortality. The psychosocial and socioeconomic impact of hyperthyroidism remains underexplored in South Asian populations. This study aimed to evaluate the occupational, economic and psychosocial burden of hyperthyroidism and its determinants in Sri Lankan patients.

Methodology: This multi-center descriptive cross-sectional study was carried out in specialized endocrine clinics in government and private hospitals in Sri Lanka. A structured, interviewer-administered questionnaire was used for data collection. Multivariable logistic regression was used to identify independent predictors.

Results: Among 546 participants, the mean age was 51.0 years and 81.7% were female. Occupational impact was reported in 21.6%, economic impact in 22.3%, and psychosocial impact in 22.9% of patients. Working with difficulty was the most common form of occupational disruption (18.5%) and 3.1% had left their jobs permanently. Medication costs were the predominant economic concern (14.3%) and irritability was the commonest psychosocial complaint (11.5%). Younger age was independently associated with occupational (OR 0.97 per year increase, $p < 0.001$), economic (OR 0.98, $p = 0.020$), and psychosocial burden (OR 0.96, $p < 0.001$). Female sex was associated with occupational impact (OR 2.12, $p = 0.004$) and low income independently predicted economic burden (OR 1.97, $p = 0.003$). Psychosocial impact was independently associated with economic (OR 2.91, $p < 0.001$) and occupational disruption (OR 1.66, $p = 0.047$).

Conclusions: Hyperthyroidism is associated with occupational, economic and psychosocial burden, particularly among younger and economically disadvantaged patients. Integrating socioeconomic and psychological assessment into routine endocrine care may improve long-term outcomes in vulnerable populations.

A secondary data analysis of flood events and their human and housing impact in Sri Lanka from 2010 to 2025

Waidyatilleke SR¹, Hettiarachchi TH², Dharmaratne SD²

¹*Department of Medicine, Faculty of Medicine, University of Peradeniyaz*

²*Department of Community Medicine, Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Floods are the most damaging weather-related hazard in Sri Lanka. They cause deaths, injuries, displacement, and large losses of property each year. A simple national summary of flood records is useful for planning. This study aimed to describe the time trend, spatial pattern, and human and housing impact of flood events recorded in Sri Lanka from 2010 to 2025.

Method: A secondary data analysis was carried out using the national disaster database. All flood records from 2010 to 2025 were extracted. The number of events, deaths, injuries, missing persons, affected people, and damaged houses were summarised by year, month, province, and district. Frequencies, totals, and percentages were calculated.

Results: A total of 3,645 flood events were recorded. They caused 389 deaths, 325 injuries, and 234 missing persons. About 7.36 million people and 1.93 million families were affected. A total of 104,729 houses were impacted, of which 16,713 were destroyed and 88,016 damaged. The Western Province reported the most events with 19.0%, followed by Northern with 18.1%) and North-Western at 17.4%. Kurunegala at 9.6% and Gampaha at 9.1% were the most affected districts. May (27.1%) and November (21.5%) were peak months, reflecting the two monsoons. The year 2010 recorded 884 deaths which is the highest number. Deaths were reported in 5.8% of all flood events.

Conclusions: Floods in Sri Lanka cause a heavy human and housing burden, with clear seasonal and regional patterns. Strengthening early warning, drainage, and housing resilience in the Western and Northern provinces is needed.

Free Paper Session 2

OP7

Changing Epidemiology of Inflammatory Bowel Disease in a Low- and Middle-Income Country: A 20-Year Experience from a Multi-Centre, Nationwide Survey from Sri Lanka

(SLSG IBD-Nationwide Survey Collaborators)

Niriella M¹, Jayasena H², Gunarathna WPV³, Abeynayake DR⁴, Aryasingha S⁵, Kumarasena S⁶, Senanayake M⁷, Fernandopulle N⁸, Upanishad RGI⁵, Dinamithra NP⁹, Wijewantha HS⁹, Keppetiyagama C⁹, Balendran K¹⁰, Kajendran A¹⁰, Liyanaarachchi T¹¹, Subasinghe D⁸, Peiris R⁵, Subasinghe CE¹², Piyarathna C¹³, Kumara RAC¹⁴, Herath PR¹⁵, Kesavan T¹⁶, Thalagala E¹⁷, Perera KRPP¹⁸, Aponso T¹⁹, Vijitharan V²⁰, Rishikesavan V²¹, Wanniarachchi N³, Kusumpokuna A³, Senanayake H³

¹Faculty of Medicine, University of Kelaniya, Sri Lanka,

²Faculty of Medicine, General Sir John Kotelawala Defence University, Rathmalana, Sri Lanka,

³Sri Lanka Society of Gastroenterology, Colombo, Sri Lanka,

⁴District General Hospital Embilipitiya, Sri Lanka,

⁵National Hospital Sri Lanka, Colombo, Sri Lanka,

⁶National Hospital Galle, Sri Lanka,

⁷Colombo South Teaching Hospital, Kalubowila, Sri Lanka,

⁸Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka, ,

⁹National Hospital Kandy, Sri Lanka, ¹⁰Jaffna Teaching Hospital, Jaffna, Sri Lanka,

¹¹District General Hospital, Gampaha, Sri Lanka,

¹²District General Hospital Matara, Sri Lanka,

¹³Teaching Hospital Kurunegala, Sri Lanka,

¹⁴Colombo North Teaching Hospital, Ragama, Sri Lanka,

¹⁵District General Hospital Pollonaruwa, Sri Lanka,

¹⁶District General Hospital Kegalle Sri Lanka,

¹⁷District General Hospital Chilaw, Sri Lanka, ¹⁸District General Hospital Negambo, Sri Lanka,

¹⁹Army Hospital Colombo, Sri Lanka, ²⁰Teaching Hospital Batticaloa, Sri Lanka,

²¹Teaching Hospital Kaluthara, Sri Lanka.

Introduction: We assessed changing inflammatory bowel disease (IBD) phenotypes over 20 years in a nationwide multi-centre cohort.

Method: Patients with histologically confirmed ulcerative colitis (UC) or Crohn's disease (CD) were recruited into two groups: Group 1 (G1, diagnosed 2003–2005) and Group 2 (G2, diagnosed 2023–2025). Demographics, disease location/behaviour, and treatment patterns were analysed using Chi-square and t-tests ($p < 0.05$ was significant).

Results : 262 patients were recruited (G1: $n=62$; G2: $n=200$). UC predominated in G1 (75.8%) but declined in G2 (48.5%), while CD increased from 22.6% to 45.5% ($p < 0.001$). Mean onset age for UC rose from 38.08 ± 13.85 to 44.04 ± 18.55 years ($p=0.03$) while it remained the same for CD [31.92 ± 15.52 years (G1) vs 30.78 ± 13.65 years (G2) ($p=0.80$)].

UC phenotype shifted from left-sided (E2: 50.0%) in G1 to proctitis (E1: 47.2%) in G2 ($p<0.001$). In CD, ileo-colonic disease (L3) fell from 83.3% to 34.4%, with increases in ileal (L1: 8.3%→26.6%) and colonic (L2: 8.3%→29.7%) involvement ($p=0.07$). Non-penetrating, non-stricturing behaviour (B1) predominated in both groups (50.0% in G1 and 69.4% in G2), while stricturing disease (B2) decreased (33.3%→18.4%, $p=0.36$).

UC treatment saw increased steroid use (2.1%→17.5%, $p=0.01$). In CD, 5-ASA use fell (57.1%→15.4%, $p=0.001$), while immunomodulator (28.6%→63.7%, $p=0.04$) and anti-TNF use (0%→33.0%, $p=0.009$) rose significantly. Surgical rates were non-significantly lower in G2 for both UC (8.5%→5.2%) and CD (42.9%→26.4%).

Conclusion : CD increased substantially over 20 years, accompanied by shifts in the distribution of UC and CD phenotypes. Despite escalating therapy, a relatively benign disease course was maintained over the 20-year period.

OP8

Determinants of Disease Severity and Outcomes in Hospitalised Patients with Dengue Infection in a Tertiary Care Centre in Colombo District: An Interim Analysis

Manilgama SR^{1,2}, Bhishman S², Hewage ND¹, Wellappuli WADY,¹ Ganepola D³

¹Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura

²Colombo South Teaching Hospital

³National Hospital of Sri Lanka

Introduction and Objectives: Dengue severity ranges from uncomplicated Dengue Fever (DF) to Dengue Haemorrhagic Fever (DHF) and Dengue Shock Syndrome (DSS), posing a significant public health burden in Sri Lanka. This interim analysis identifies clinical and haematological predictors of progression to DHF in hospitalised adults.

Methodology: An interim cohort of 239 patients aged ≥ 14 years with confirmed dengue was recruited at Colombo South Teaching Hospital and classified per WHO criteria into DF and DHF. Clinical, sociodemographic, and haematological data were prospectively collected. Chi-square/Fisher's Exact tests compared categorical variables; Mann–Whitney U tests assessed continuous variables. Logistic regression identified predictors of DHF, and a multivariable model was evaluated using ROC analysis.

Results: Of 239 patients, 146 (61.1%) were male. Diagnoses included DF without bleeding (28.0%), DF with bleeding (6.3%), DHF without shock (52.7%), and DSS (13.0%); 65.7% were classified as DHF. Most patients (89.5%) recovered fully. HDU admission was strongly associated with DHF (84.1% vs. 29.3%, $p < 0.001$). Abdominal pain ($p < 0.001$) and vomiting ($p = 0.021$) were significantly more common in DHF. Rapid rise in haematocrit was the strongest predictor (OR 8.70, $p < 0.001$), followed by lethargy/restlessness (OR 4.35, $p < 0.001$) and hepatomegaly (OR = 15.2, Fisher's exact $p = 0.014$). Platelet nadir was significantly lower in DHF ($p < 0.001$). The multivariable model demonstrated good fit ($\chi^2 = 52.51$, $p < 0.001$; Nagelkerke $R^2 = 0.273$) with satisfactory discriminatory performance.

Conclusion: WHO warning signs particularly rapidly rising haematocrit, lethargy/restlessness, and hepatomegaly are significant predictors of DHF, while platelet nadir reflects but does not alone determine severity. Full recruitment and model validation are ongoing.

OP9

Prevalence and severity of sarcopenia in advanced chronic liver disease: association with disease stage, gender, etiology and nutritional status in a specialised liver centre in Sri Lanka

Balasooriya BMC¹, Samarasekara TG¹, Dasanayake U², Cooray MRC¹, Pahalavithana LTD¹, Rathnayake RMYJ¹

¹*Colombo North Teaching Hospital-Ragama,*

²*Colombo North Centre for Liver Diseases, University of Kelaniya*

Introduction and Objectives: Sarcopenia, defined by reduced muscle strength or physical performance with confirmed low muscle mass, is an under-recognised complication of advanced chronic liver disease (ACLD). This study assessed prevalence, severity and associations with disease stage, etiology, gender and nutritional status.

Method: This cross-sectional study included 100 adults from a specialised liver centre. Muscle strength was assessed by handgrip dynamometry, and physical performance by gait speed and chair-rise test. Low muscle mass was confirmed by L3 CT skeletal muscle index or bioelectrical impedance analysis, by Asian Working Group criteria. Disease severity was assessed by Child-Pugh class and MELD-Na; nutritional status by BMI, Royal Free Hospital Global Assessment (RFH-GA).

Results: Mean age was 50.2 years; 85% were male. Alcohol-related disease and MASLD accounted for 38% and 34%. Low handgrip strength and impaired performance were present in 55% and 73%. Sarcopenia and severe sarcopenia were present in 41% and 35%. Overweight was the commonest BMI (39 %); however, RFH-GA identified suspected/moderate and severe malnutrition in 55% and 18%. Sarcopenia increased across Child-Pugh A, B and C (11.1%, 31.6%, 64.7%; $p=0.001$), with higher MELD-Na (median 19 versus 16; $p=0.005$), and with worsening RFH-GA category ($p<0.001$). Severe sarcopenia was associated with low mid-arm muscle circumference (OR 6.19, $p<0.001$), suggesting peripheral muscle depletion. Gender and etiology were not significant.

Conclusions: Sarcopenia is common in Sri Lankan adults with ACLD and increases with disease severity and malnutrition, despite preserved BMI. Functional impairment exceeded confirmed muscle loss, supporting strength-function testing to prioritise confirmation, nutrition therapy and resistance-exercise.

Impact Of The Ward-Based Clinical Pharmacy Services On Medication Appropriateness And Quality Of Life Among Oncology Patients: A Non-Randomised Controlled Trial

Chandrasena WMHNM^{1,2}, Kalpani AGS^{2,3}, Firman P^{2,4,5}, Shanika LGT^{2,6}, Jayamanne SF^{1,2}

¹*Faculty of Medicine, University of Kelaniya*

²*Collaboration of Australian and Sri Lankans for Pharmacy Practice Education and Research (CASSPER), Brisbane, Australia*

³*Faculty of Allied Health Sciences, University of Sri Jayewardenepura*

⁴*Royal Brisbane and Women's Hospital, Brisbane, Australia*

⁵*School of Pharmacy, The University of Queensland, Brisbane, Australia*

⁶*St John, New Zealand*

Introduction: Oncology patient management requires specialised pharmaceutical care. Although Clinical Pharmacy Services (CPS) improve oncology care globally, evidence from Sri Lanka remains limited. To evaluate the impact of the ward-based CPSs on medication appropriateness and quality of life (QOL) in oncology patients.

Methods: A non-randomised controlled study was conducted in two medical oncology wards at Apeksha Hospital. The intervention group (IG) received a comprehensive CPS, whereas the control group (CG) only received usual care. The CPS included ward-based clinical pharmacist-led medication reviews with communication of medication-related concerns during hospitalisation. In addition, patient counseling on proper use of medications and side-effect management was provided at baseline and six-month follow-up. Medication appropriateness was assessed using the Medication Appropriateness Index (MAI), and QOL was evaluated using the European Organisation for Research and Treatment of Cancer (EORTC) questionnaire at baseline and six months.

Results: Among 311 recruited patients to the IG (n=156) and CG (n=155), 203 (65.3%) completed the six-month follow-up: IG (n=103) and CG (n=100). The median MAI score per medication was significantly lower in the IG compared to the CG [0.1 (IQR: 0.0-0.1) vs 0.8 (IQR: 0.4-1.1), (P<0.0001)]. Baseline QOL showed no significant difference between the two groups (P=0.051); however, after six-month follow-up, IG demonstrated significantly improved overall QOL compared to the CG [91.7% (IQR:79.2-95.8) vs 66.7% (IQR: 50.0-75.0), (P<0.0001)].

Conclusion: The implementation of CPS improved medication appropriateness and QOL in oncology patients, supporting integration of ward-based CPS as a part of the multidisciplinary oncology care team in the study setting.

Antenatal depression and anxiety and its associated factors among pregnant mothers in the Colombo Regional Director of Health Services area

Mohideen S¹, de Silva .C², Weliange S³

¹ *Postgraduate Institute of Medicine, University of Colombo*

² *Postgraduate Institute of Medicine, University of Colombo*

³ *Faculty of Medicine, University of Colombo*

Introduction and Objectives: Antenatal depression and anxiety are major public health concerns associated with adverse maternal and child health outcomes. In low- and middle-income settings, these conditions are often under-recognized due to limited integration of mental health into routine antenatal services. This study aimed to estimate the prevalence of antenatal depression and anxiety and to identify associated psychosocial and medical determinants among pregnant women attending antenatal clinics in the Colombo Regional Director of Health Services area.

Method: A descriptive cross-sectional study with an analytical component was conducted among 2,008 pregnant women using a multistage stratified cluster sampling design at antenatal clinics. Depressive symptoms were assessed using a validated Edinburgh Postnatal Depression Scale, and anxiety symptoms using the Perinatal Anxiety Screening Scale. Prevalence estimates were calculated, and multivariable logistic regression analysis was performed to identify independent predictors.

Results: The prevalence of antenatal depression was 39.1% (CI: 37.5 - 41.6) and antenatal anxiety was 27.4% (CI:25.4-29.1), with higher anxiety observed in the third trimester 36.7% (95% CI :34.0 -39.4). Depression was independently associated with ≥ 4 stressful life events (AOR 2.3; 95% CI: 1.8–3.1), poor partner relationship (AOR 2.5; 95% CI: 1.9–3.4) and lack of family support (AOR 2.1; 95% CI: 1.6–2.8). Anxiety was independently associated with intimate partner violence (AOR 2.7; 95% CI: 2.0–3.6), chronic illness (AOR 1.8; 95% CI: 1.3–2.5) and financial strain (AOR 1.9; 95% CI:1.4–2.6).

Conclusions: Antenatal mental health disorders were highly prevalent in Colombo District. Integrating routine mental health screening with targeted psychosocial interventions into antenatal care is a public health priority.

Association between early hemoglobin level and immediate outcome of moderate and severe traumatic brain injury

Weeratunga D¹, Ekanayake EMSB²

¹*National Hospital of Sri Lanka, Colombo*

²*Lady Ridgeway Hospital for Children, Colombo*

Introduction: Early anemia may worsen cerebral hypoxia in traumatic brain injury (TBI). This study aimed to evaluate the association between early hemoglobin (Hb) levels and immediate clinical outcomes in moderate to severe TBI.

Methods: A prospective cohort study was conducted at the National Hospital of Sri Lanka (November 2025–January 2026). Adults with moderate to severe TBI were included. Admission Hb within 24 hours was recorded and categorized as anemic (<10 g/dL) or non-anemic (≥10 g/dL). Outcomes included in-hospital mortality and functional outcome (modified Rankin Scale, mRS). Logistic regression was used to identify independent predictors.

Results: A total of 144 patients were analyzed (mean age 54.9 ± 19.7 years; 81.9% male). Mean Hb was 11.56 ± 2.48 g/dL, with 26.4% anemic. Mortality was significantly higher in the anemic group (65.8% vs 36.8%, $p = 0.0038$), with an odds ratio of 1.79. Survival analysis showed reduced survival in anemic patients (log-rank $p = 0.0038$). Higher Hb independently predicted favorable functional outcome, with each 1 g/dL increase improving odds by 28% (AOR 1.278; 95% CI 1.031–1.583; $p = 0.025$).

Conclusion: Early Hb level is an independent predictor of mortality and functional outcome in moderate to severe TBI. Admission anemia is associated with increased mortality, highlighting the importance of early Hb optimization.

No One Left Behind: Improving Retention in the Tuberculosis Infection Cascade Among High-Risk Groups in Galle district, Sri Lanka

Rajapakshe OBW¹, Cader M¹, Pallewatte NC¹, Jayasekara H^{1,2}, Galagedara WD¹, Rahuman MBF³, Manjika S⁴, Kariyakarawana R¹, Shanthilatha P¹, Dalpathadu KCS⁵, Rathnapala A⁵, Gajaweera H⁵, Ranaweera P³, Arnold SM⁶, Prathapan S⁴

¹ National Programme for Tuberculosis Control and Chest Diseases, Ministry of Health, Sri Lanka

² Environmental and Occupational Health Unit, Ministry of Health, Sri Lanka

³ Regional Director of Health Services Office, Galle

⁴ Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura

⁵ National Hospital, Galle

⁶ Deputy Director General, Public Health Services – I, Ministry of Health, Sri Lanka

Introduction and objectives: Tuberculosis (TB) Preventive Therapy (TPT), recommended by the World Health Organization (WHO), is essential to achieve End TB targets. However, TB infection cascade of care has substantial attrition; globally, fewer than 20% complete TPT; 70–80% of losses occur before treatment initiation. In Sri Lanka, coverage limited by multiple visits, poor diagnostic access, travel barriers, and low adherence to six-month isoniazid. WHO recommended person-centred TB infection care model was implemented in Galle District to improve retention.

Methodology: Implementation study targeted close contacts of TB patients and other high-risk groups; people living with HIV, people who use illicit drugs (PWUDs), dialysis patients, prison inmates, and healthcare workers. Services expanded within the district; a two-visit approach combined TB disease and infection testing using chest X-ray, sputum PCR, and Mantoux testing; portable xray for field screening. Shorter 3HP regimen used for TPT. Mobile-based monitoring and reminder systems supported retention.

Results: Among close contacts, screening coverage increased from 35.4% (253/715) in 2023 to 83.9%(1229/1464) in 2025($p<0.001$), with 72.2% completing diagnosis within two visits. From 2023 to 2025, TBI testing uptake rose from 41.8% to 99.8%($p<0.001$); TB case detection from 16 to 20. Among other high-risk groups, screening coverage tripled ($n=489$ in 2023, $n=1833$ in 2025), identifying 11 TB patients($p=0.049$) compared to none in 2023. TBI testing reached near-universal levels; 87.2% completed diagnosis within two visits. Highest TST positivity observed among PWUDs(62.0%).

Conclusion: This person-centred intervention improved retention, case detection, and TPT uptake, supporting End TB targets through enhanced accessibility and streamlined care.

Estimated Glomerular Filtration Rate as a Continuous Predictor of Haematological Decline and Independent Determinant of Anaemia in Chronic Kidney Disease: Evidence from Teaching Hospital, Jaffna

Sangavi T¹, Karthiga M², Kanistan J², Thangarajah BR³, Arasaratnam V¹

¹*Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka*

²*Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, University of Jaffna, Sri Lanka*

³*Department of Medicine, Faculty of Medicine, University of Jaffna, Sri Lanka*

Introduction and objectives: The Estimated Glomerular Filtration Rate (eGFR) reflects kidney function and could show a continuous relationship with haematological parameters. Such a study has not been performed in the Northern Sri Lankan population. Hence, this study aimed to assess the relationship.

Methods: This cross-sectional study included 137 CKD patients from the Medical and Nephrology Clinics, Teaching Hospital, Jaffna. Hb (Cyanmethaemoglobin method) and serum creatinine (Jaffe method) were measured, and eGFR was calculated. The Haematocrit (Hct), RBC count, UPCR, age, gender, and CKD duration were obtained from Clinic reports. The proteinuria degree was determined using UPCR values. Statistical analysis was done using SPSS software.

Results: eGFR had significant positive correlations with Hb ($r=0.423$), Hct ($r=0.407$), and RBC ($r=0.398$; all $p<0.001$). For every 1 mL/min/1.73 m² increase in eGFR, an increase in Hb (0.029g/dL, $R^2=0.209$), Hct (0.092%, $R^2=0.170$), and RBC count ($0.009 \times 10^{12}/L$, $R^2=0.143$) were observed. The multivariate model was statistically significant ($p<0.001$; AUC=0.806). Lower eGFR was independently associated with increased odds of anaemia (adjusted OR=0.966, 95%CI:0.942–0.991, $p=0.009$), with each 1mL/min/1.73m² decline in eGFR increasing the chance of anaemia by 3.5%. Nephrotic-range proteinuria was independently associated with nearly five-fold higher chance of anaemia than with normal urinary protein levels (adjusted OR=4.909, 95%CI:1.133–21.269, $p=0.034$). Sex, age category, and CKD duration were insignificant independent predictors of anaemia.

Conclusion: Declining kidney function showed a strong association with worsening haematological parameters. Significantly independent predictors of anaemia were low eGFR and nephrotic-range proteinuria. Early monitoring of eGFR and proteinuria would help prevent anaemia in CKD patients.

OP15

Relationship between ankle proprioception and functional mobility of subacute post-stroke patients at Rheumatology and Rehabilitation Hospital Ragama, Sri Lanka.

Perera KDS¹, Jayathissa AMLL¹, Nammuni NDAU¹, Dabre HPM¹

¹Department of Physiotherapy, Faculty of Allied Health Science, General Sir John Kotelawala Defence University, Colombo, Sri Lanka.

Introduction and objectives: Stroke is one of the commonest cause of disability worldwide that lead to functional limitations and balance problems. Sub-acute phase of stroke (1 week to 3 months after a stroke) is a critical period for recovery. Although some studies show the importance of proprioception in mobility, research on sub-acute phase of stroke is limited. This study was designed to assess the association between ankle proprioception and functional mobility in Sub-acute stroke patients at RRH.

Methods: A cross-sectional study was conducted at RRH. Study participants (n=36) were included if aged 50-78 years, ankle dorsiflexion $\geq 10^\circ$, and had good cognition. Participants were recruited consecutively from the main department and stroke unit. Ankle proprioception was measured bilaterally using the joint position-reproduction test at 10° dorsiflexion, 10° plantarflexion, and 20° plantarflexion. Functional mobility was measured using the Berg Balance Scale. Data were analyzed using Statistical Package for Social Sciences version 25.

Results: The median age of the study participants were 58.0 years (range of 50-74 years). The majority had suffered an ischemic stroke (n=33, 91.7%). The mean Berg Balance score was 45.81 ± 4.43 . Proprioceptive deficits on the affected side with functional mobility showed a strong negative correlation at 10° plantarflexion ($r=-0.66$, $p<0.001$), 20° plantarflexion ($r=-0.67$, $p<0.001$), but no correlation at 10° dorsiflexion ($r=-0.11$, $p=0.52$).

Conclusion: Affected side ankle plantarflexion proprioceptive deficits were significantly associated with functional mobility, while dorsiflexion showed no association. These findings suggest that proprioception plays a key role in mobility after stroke.

Impact of Climate Variability on Leptospirosis in Kurunegala District, Sri Lanka (2015–2024): An Ecological Time Series Analysis

Lakshitha A.M.P.C¹, Hewaarachchi A.P²

¹ *Postgraduate Institute of Medicine, University of Colombo, Sri Lanka*

² *Department of Statistics & Computer Science, University of Kelaniya, Sri Lanka*

Introduction and objectives: Leptospirosis is a climate-sensitive zoonosis of major public health importance in Sri Lanka. Kurunegala District, characterized by agriculture and climate-dependent livelihoods, consistently reports a high disease burden. This study investigates the impact of climate variability on Leptospirosis using an ecological time-series approach to identify seasonality, lagged climatic effects, and develop a predictive model for early warning.

Method: Weekly Leptospirosis cases (N=4398) and climatic variables- weekly rainfall (WR), Temperature (°C), Relative humidity (RH, daytime and nighttime), and Rainy days per month (RD) were analyzed over 520 weeks (2015-2024). Stationarity and seasonality, followed by Cross-Correlation analysis, identified optimal lagged predictors. Log-transformed weekly cases were modelled using the Seasonal Autoregressive Integrated Moving Average with Exogenous Regressors (SARIMAX), retaining only the statistically significant lagged predictors. Model development employed training and testing datasets, while predictive performance was evaluated using forecast accuracy, goodness of fit indices, and residual diagnostics.

Results: Leptospirosis cases showed a significant positive association with the cases in the preceding week ($\beta=0.6276$, $SE=0.0528$), WR lagged by four weeks ($\beta=0.0016$, $SE=0.0007$), RD lagged by six weeks ($\beta=0.0118$, $SE=0.0063$), and nighttime RH lagged by five weeks ($\beta=0.0164$, $SE=0.0081$). The final SARIMAX(1,1,1) model demonstrated good predictive performance (RMSE=0.59; MAE=0.49; MAPE $\approx$ 21%), satisfactory model fit (AIC=764.08; BIC=803.37; $R^2=0.502$; $p<0.001$) and adequate residual diagnostics (Ljung–Box $\chi^2=24.30$, $df=22$, $p=0.33$).

Conclusions: Climatic variability significantly influenced Leptospirosis transmission with distinct lag effects. The SARIMAX model provided reliable short-term forecasts supporting climate-informed surveillance, early warning for public health intervention, guiding resource allocation, and strengthening leptospirosis prevention and control in climate-sensitive settings.

Hidden burden of *Strongyloides* and *Enterobius* infections in Anuradhapura: Gaps in intestinal helminth surveillance

Jayakody NK^{1,2}, Gordon CA³, Silva NKA², Wickramasinghe ND⁴, Wickramasinghe WDSJ⁵, Collinson N³, Wijayasekara MAAE¹, Karunarathne CB⁶, De Silva NR⁷, Weerakoon KG²

¹ Department of Parasitology, Faculty of Medicine, Wayamba University of Sri Lanka

² Department of Parasitology, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka

³ Department of Infection and Inflammation, QIMR Berghofer Medical Research Institute, Brisbane, Australia

⁴ Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka

⁵ Department of Parasitology, Faculty of Medicine, University of Peradeniya, Sri Lanka

⁶ Department of Physiology, Faculty of Medicine, Wayamba University of Sri Lanka

⁷ Department of Parasitology, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction and objectives: National deworming programmes target *Ascaris lumbricoides*, *Trichuris trichiura*, and hookworm, while *Strongyloides stercoralis* and *Enterobius vermicularis* remain excluded. This gap is not aligned with the WHO-NTD-roadmap 2021-2030, which emphasizes equitable control of relevant helminths. This study aimed to determine the prevalence of these neglected intestinal helminth infections among primary schoolchildren in Anuradhapura using microscopic and molecular methods.

Methodology: This cross-sectional study was conducted among children aged 5–11 years from 19 schools across five educational zones in Anuradhapura, using multistage stratified cluster sampling. Stool samples (n=688) were analysed in triplicate using direct wet smear (DWS), formalin-ether concentration technique (FECT), Kato-Katz (KK), agar plate culture (APC), and qPCR for *S. stercoralis*. Scotch tape samples (n=781) were examined for *E. vermicularis*. Tests were performed in triplicate following standardised protocols. Random microscopy samples (10%) were re-examined for quality assurance, and microscopy and PCR results were interpreted independently.

Results: Mean (SD) age was 7.9(1.9) years, with 52.9%(n=364) males. Overall, 19.2%(n=132) were positive for *S. stercoralis*, all asymptomatic. Detection varied markedly: 0% by DWS/KK, 1.2%(n=8) by FECT, 5.0%(n=32) by APC, and 16.0%(n=110) by qPCR. *E. vermicularis* prevalence was 24.4%(n=191), with Scotch tape detecting 23.2%(n=181). Non-specific symptoms were common (n=250,32%), including perianal itching, loss of appetite, and intermittent abdominal pain, but showed limited association with infection status (OR=1.21,95% CI:0.84-1.73).

Conclusions: A substantial, under-recognized burden of *S. stercoralis* and *E. vermicularis* exists in Anuradhapura despite being classified as low-endemic. KK-based surveillance fails to detect these infections. Findings support WHO-aligned expansion of surveillance to include these neglected intestinal nematodes and adoption of sensitive diagnostics to improve burden estimation and targeted control strategies.

OP18

Improving survival in infant liver transplantation through cross-border collaboration: a national experience

Fernando M¹, Tennakoon K¹, Tillakaratne MSB¹, Weerasuriya A¹, Narasimhan G², Gunetilleke B¹, Liyanagae C¹, Withanage R¹, Appuhamy C¹, Thanthiriwaththa CD¹, Siriwardana RC¹.

¹*Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya*

²*The Institute of Liver Disease & Transplantation, Dr Rela Institute & Medical Centre, Bharath Institute of Higher Education & Research, Chennai, India*

Introduction and Objectives: Paediatric liver transplantation (LT), particularly in infants, for biliary atresia (BA), represents one of the most technically challenging areas in transplant surgery. Commencing such programmes in a low–middle-income country limited by expertise and infrastructure is demanding. We established a structured cross-border collaboration and evaluated its effectiveness by assessing the outcomes of LT in infants.

Method: A retrospective analysis was conducted of infants referred for LT between 2020–2025 at a newly established paediatric liver centre in Sri Lanka. A formal collaboration with a high-volume overseas centre supported staff training, infrastructure development, and joint clinical decision-making. Five-year trends in referrals, transplant activity, case complexity, and outcomes were analysed.

Results: A total of 253 infants were referred, including 108 with BA. Annual referrals increased from 19 to 61. LT workup increased from 0 to 14 patients per year, with 17 infants undergoing transplantation. Local transplant numbers rose from 0 to 11 annually. Pre-transplant mortality declined from 42.9% to 8%. Perioperative mortality improved from 100% (2022) to 27.3% (2025). Increasing case complexity was observed, with portal vein hypoplasia rising to 75% of evaluated cases by 2025. Successful vascular reconstruction using interposition grafts was achieved in complex cases.

Conclusions: Structured international collaboration enabled rapid development of a complex infant LT programme, significantly improving access, reducing mortality, and allowing progression to advanced surgical complexity within five years. This model offers a scalable framework for emerging transplant programmes in resource-limited settings.

“Bundles of Hope”: Impact of a Quality Improvement Care Bundle on Mortality and Morbidity in a Tertiary Neonatal Intensive Care Unit at Teaching Hospital Badulla, Sri Lanka

Hassan MHSM^{1,2}, Pamarathne DV¹, Jayaweera PHS¹, Rathnayake KACJJ¹, Herath HMSY¹, De Silva BM³, Asrin MMF³

¹*Teaching Hospital Badulla, Sri Lanka*

²*Department of Paediatrics and Neonatology, Faculty of Medicine, University of Moratuwa*

³*Colombo South Teaching Hospital, Sri Lanka*

Introduction: Preterm infants remain at substantial risk of mortality and major morbidities, particularly in resource-limited settings. In September 2023, a comprehensive 10-component Quality Improvement (QI) bundle was implemented in a peripheral tertiary neonatal intensive care unit (NICU) to improve outcomes among infants <34 weeks' gestation.

Objectives: to evaluate the impact of this structured QI care bundle on mortality and major prematurity-related morbidities among preterm infants.

Methods: A retrospective cohort study was conducted from January 2022 to June 2025. Of 1,073 admissions, 25 were excluded, and 1,048 infants <34 weeks were analysed over 42 months: Pre-QI (n=486), transition phase (n=88), and Post-QI (n=474). The bundle included early nutrition, thermoregulation, infection prevention, structured resuscitation training, family-centred care, antenatal corticosteroid and magnesium sulfate coverage, delayed cord clamping, oxygen stewardship, safe neonatal transport, and medication safety practices. Outcomes were compared between Pre- and Post-QI periods using chi-square testing. Ethical clearance was obtained from the Sri Lanka College of Paediatricians (SLCP/ERC/2025/36).

Results: In-hospital mortality among infants <34 weeks declined significantly from 13.0% (63/486) pre-QI to 7.6% (36/474) post-QI (p=0.006). Significant reductions were observed in bronchopulmonary dysplasia (19.9% vs 12.0%, p=0.001), intraventricular haemorrhage ≥Grade-II (9.0% vs 4.0%, p=0.002), retinopathy of prematurity requiring treatment (13.0% vs 3.0%, p<0.0001), necrotizing enterocolitis ≥Stage-II (6.0% vs 3.0%, p=0.024), and late-onset sepsis (17.9% vs 8.0%, p<0.0001). Mortality reduction was consistent across gestational strata.

Conclusions: Implementation of a coordinated, evidence-based QI bundle was associated with significant and sustained reductions in mortality and major morbidities among preterm infants in a tertiary NICU.

Delivery outcomes across maternal glycemic status: A prospective cohort study from two tertiary care hospitals in Western province.

Sasikanth T.¹, Wickramasinghe W.K.V.K.¹, Fernando D.R.¹, Kaluarachchi A.², Dodampahala S.H.², Jayawardena D.B.I.A.², Ranaweera A.K.P.², Rishard M.R.M.², Jayasundara C.², Piyadigama I.², Katulanda G.W.³, Kadotgajan T.⁴, Lanerolle S.⁴, Katulanda P.¹

¹*Centre for Diabetes, Endocrinology and Cardio metabolic Research, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka.*

²*Department of obstetrics and gynaecology, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka.*

³*National Hospital of Sri Lanka, Colombo, Sri Lanka.*

⁴*Castle Street Hospital for Women, Colombo, Sri Lanka.*

Introduction: Hyperglycemia in pregnancy is associated with adverse maternal and neonatal outcomes. Comparing delivery outcomes across glycemic groups is important for identifying high-risk women and informing targeted antenatal care.

Objectives: To compare delivery outcomes among normoglycaemic women, with those having gestational diabetes mellitus (GDM), and pre-existing diabetes.

Methodology: A prospective cohort study was conducted among 694 pregnant women attending De Soysa and Castle Street Hospitals between 2024-2025. Participants were categorized as normoglycaemic, GDM or pre-existing diabetes (known or diagnosed at booking) based on American Diabetes Association criteria. Outcomes included mode of delivery, birth weight, miscarriages, and perinatal complications. A composite adverse perinatal outcome comprised ≥ 1 of: perinatal death, shoulder dystocia, NICU admission, birth trauma, respiratory distress, large/small for gestational age, pre-term birth, neonatal hypoglycaemia, congenital abnormalities or neonatal hyperbilirubinemia. Association were analysed using the chi-square test.

Results: Pre-existing diabetes was present in 6.34% of participants, while GDM occurred in 28.82%. Overall, 97.69% of pregnancies resulted in live births. Women with pre-existing diabetes had a lower live birth rate(79.5%) and higher miscarriage rate(13.6%)($\chi^2=74.193$, $p<0.001$). Mean birth weight did not differ significantly across groups($p>0.05$). Glycemic status was significantly associated with mode of delivery($\chi^2=15.343$, $p=0.004$): normal vaginal delivery was most common among normoglycaemic women(60.8%), compared with GDM(51.0%) and pre-existing diabetes(34.2%) while LSCS rates were highest in the pre-existing diabetes group(60.5%). Although the composite adverse perinatal outcome differed significantly across glycemic groups, individual complications did not show significant differences.

Conclusions: Women with GDM and pre-existing diabetes had a higher overall burden of adverse maternal and perinatal outcomes compared with normoglycaemic women. These findings highlight the importance of optimizing glycemic control before and during pregnancy.

OP21

Haemolysis and haemoglobin dynamics in multi-drug therapy for leprosy: predictors and patterns

Arudchelvam U¹, Thubellage DS², De Silva TSD³, Kahawita IP¹

¹*Dermatology Unit, National Hospital of Sri Lanka, Colombo*

²*Central Leprosy Clinic, National Hospital of Sri Lanka, Colombo*

³*University of Sri Jayewardenepura, Sri Lanka*

Introduction: Dapsone, a cornerstone of multidrug therapy for leprosy, is associated with haemolysis. Monitoring haemoglobin trends during treatment is critical to identify early, clinically significant declines and guide timely intervention.

This study aimed to describe haemoglobin changes during MDT, the magnitude and timing of Hb decline, and compare patients with and without haemolysis, and identify predictors of haemolysis and haemoglobin reduction.

Methodology: A retrospective review of clinic records from January 2016 to December 2023 was conducted. Data were cleaned and analysed using T-tests, Chi-square, logistic, and linear regressions.

Results: A total of 540 patients were included (mean age 39.5 ± 16.4 years). The mean baseline Hb for the cohort was 13.6g/dL. A statistically significant mean reduction in haemoglobin of 2.31 g/dL was observed across the cohort ($p < 0.001$). The maximum haemoglobin decline occurred at a median of 4 weeks (IQR: 4–8 weeks). Haemolysis was confirmed in 14.1%.

Patients with haemolysis had a lower mean baseline Hb (13.2g/dL vs. 13.7g/dL) and experienced a greater mean Hb reduction (3.0g/dL vs. 2.2g/dL) than those without. Logistic regression identified baseline Hb as an independent predictor of haemolysis (OR 0.844, 95% CI, $p < 0.05$). Multiple linear regression showed that age and baseline Hb independently predicted Hb decline ($p < 0.05$).

Conclusions: Dapsone at standard MDT dosing results in a significant mean Hb fall of 2.31g/dL, typically peaking at approximately four weeks. Lower baseline Hb increases vulnerability to haemolysis, and higher baseline Hb and older age increase risk of greater Hb reduction, supporting intensified monitoring in these groups.

Associated factors of osteoporosis among adults aged 30 – 70 years attending tertiary care hospitals in western province, Sri Lanka: A case control study

Muhandiram U¹, Wijesinghe S², Maduwage S²

¹*Postgraduate Institute of Medicine University of Colombo*

²*Ministry of Health*

Introduction: Osteoporosis is a multifactorial chronic condition that reduces quality of life and imposes a significant economic burden. Its risk factors vary geographically due to biological, sociocultural, and environmental differences and broadly classified as primary or secondary. Further, categorization can be done depending on the nature of risk factors, into modifiable and non-modifiable risk factors. This study assessed the risk factors associated with Osteoporosis among adults age 30 – 70 years who seek treatment from selected tertiary care hospitals in Western Province, Sri Lanka.

Methodology: A hospital-based unmatched case-control study carried out among 135 confirmed osteoporosis cases and 270 controls to identify risk factors associated with osteoporosis. Participants were recruited from the tertiary care hospitals and selected private sector institutions in the Western Province in Sri Lanka, with DEXA scanning facilities. Data was collected using an interviewer-administered structured questionnaire that captured socio-demographic characteristics, lifestyle practices, clinical history, physical activity, and nutritional factors. Logistic regression analysis was used to determine factors independently associated with osteoporosis.

Results: Independent risk factors for osteoporosis were usage of methotrexate (AOR=20.1; 95% CI: 4.4–92.1) and anticonvulsants (AOR=14.5; 95% CI: 2.7–77.7), history of falls (AOR=8.6; 95% CI: 2.9–25.5), low physical activity level (AOR=3.1; 95% CI: 1.5–6.1), primary biliary cirrhosis (AOR=24.9; 95% CI: 4.6–133.6), ever smoking (AOR=10.8; 95% CI: 1.5–78.0), female gender (AOR=9.7; 95% CI: 1.7–55.0), older age (AOR=1.03; 95% CI: 1.00–1.07), lower BMI (AOR=0.91; 95% CI: 0.8–0.9), and lower vitamin D levels (AOR=0.7; 95% CI: 0.6–0.9).

Conclusion: Osteoporosis is influenced by clinical and modifiable lifestyle factors, emphasizing the importance of targeted prevention and early screening of high-risk groups for effective management.

Association of Fatty Liver Index and Ultrasound-Detected Hepatic Steatosis with Acute Coronary Syndrome in a Sri Lankan Tertiary Care Cohort

Kularathna MRCL¹, Ralapanawa DMPUK², Udupihille J³, Tennakoon SUB⁴

¹*Faculty of Medicine, University of Peradeniya, Sri Lanka*

²*Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka*

³*Department of Radiology, Faculty of Medicine, University of Peradeniya, Sri Lanka*

⁴*Department of Community Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and objectives: Fatty Liver Index (FLI) and hepatic steatosis may contribute to cardiovascular risk, but their association with acute coronary syndrome (ACS) remains unclear, especially in South Asian populations. This study evaluated their association and predictive performance in ACS.

Method: A hospital-based cross-sectional study was conducted at Teaching Hospital, Peradeniya, involving 370 adults (185 ACS patients and 185 controls) aged 25–85 years, from 2024-2025. Individuals with chronic liver disease, hepatitis, cirrhosis, and pregnancy were excluded. Demographic data and fasting blood specimens were collected to calculate the Fatty Liver Index, incorporating BMI, waist circumference, triglycerides, and GGT values. Hepatic steatosis was diagnosed using abdominal ultrasonography performed by an expert radiologist. Appropriate statistical analyses were performed using SPSS.

Results: ACS patients were older (62.7 vs 54.2 years) and more often male (58.4% vs 41.1%) than controls, with NSTEMI as the predominant subtype (63.2%). Hypertension, diabetes, smoking, dyslipidaemia, alcohol consumption, and higher FLI were significantly associated with ACS ($p<0.05$). In multivariable analysis, ultrasound-detected hepatic steatosis remained independently associated with ACS (aOR=2.521, $p=0.003$), along with age and traditional cardiovascular risk factors, while FLI showed a borderline association after adjustment (aOR=1.014, $p=0.058$). ROC analysis showed modest predictive ability for FLI (AUC=0.609), while hepatic steatosis had no discriminatory value (AUC=0.492).

Conclusions: FLI demonstrated borderline predictive value with modest discrimination, suggesting potential utility for cardiovascular risk stratification. Ultrasound-detected hepatic steatosis was independently associated with ACS but lacked predictive ability, indicating that hepatic steatosis may serve as a cardiometabolic risk marker rather than a predictor of ACS.

Diagnostic value of on-admission haematological and biochemical parameters in differentiating patients with dengue fever, leptospirosis, and sepsis

Vidanapathirana DS¹, Wickramasinghe WSM^{1,2}, Dassanayake HD¹, Chandraratne A¹, Weerasekera MM³, Joseph PA⁴, Priyankara D⁵, Rambukwella R⁶, Perera N¹

¹*Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura*

²*Department of Microbiology, Faculty of Medicine, University of Wayamba*

³*Department of Microbiology, Faculty of Medical Sciences, University of Sri Jayewardenepura*

⁴*Ministry of Health, Sri Lanka*

⁵*Medical Intensive Care Unit, National Hospital of Sri Lanka*

⁶*Department of Health Services, Central Province, Sri Lanka*

Introduction: Dengue fever, leptospirosis, and bacterial sepsis are common causes of acute febrile illness in tropical settings and frequently present with overlapping clinical features, making early diagnosis challenging. This study aimed to compare demography, admission haematological and biochemical parameters among these conditions.

Methods: This descriptive cross-sectional study analysed secondary data from 363 adult patients with laboratory-confirmed leptospirosis(n=181), NS1 antigen positive dengue fever(n=80), and bacterial sepsis(n=102) recruited from tertiary care hospitals in Sri Lanka. Admission laboratory parameters including white blood cell count(WBC), platelet count, Haemoglobin, C-reactive protein(CRP), liver transaminases, and serum creatinine(Scr) were compared between groups using Kruskal-Wallis testing.

Results: Males were predominant in leptospirosis(n=158,87.3%), while dengue and sepsis had an equal gender distribution. Median age was 26 years(IQR20) in dengue, 46yrs in leptospirosis and 71yrs in sepsis. Median WBC was $3.3 \times 10^9/L$ (IQR1.85) in dengue, $11.5 \times 10^9/L$ (IQR6.7) in leptospirosis and $18.6 \times 10^9/L$ (IQR6.3) in sepsis. Median platelets were $118 \times 10^9/L$ (IQR56.5) in dengue, $51.5 \times 10^9/L$ (IQR66) in leptospirosis and $152.5 \times 10^9/L$ (IQR84.8) in sepsis. CRP was 9.5 mg/L(IQR15.4) in dengue, 194.0 mg/L(IQR62.5) in sepsis and 229.2 mg/L(IQR139.3) in leptospirosis. SCr was 79.0 $\mu\text{mol/L}$ (IQR22.8) in dengue, 164.0 $\mu\text{mol/L}$ (IQR114.3) in sepsis and 317.5 $\mu\text{mol/L}$ (IQR260.5) in leptospirosis. All these parameters as well as liver transaminases were significantly different across groups($p < 0.001$).

Conclusions: Dengue showed leucopenia, normal CRP and preserved renal function while leptospirosis and sepsis showed elevated CRP and leucocytosis. Leptospirosis is associated with marked renal impairment and high liver transaminases. Admission CRP, WBC, Scr, platelets and AST/ALT provide useful discriminatory value in differentiating dengue, leptospirosis, and sepsis.

Clinical Spectrum and Quality of Life in Atypical Parkinsonian Disorders in Sri Lanka: Preliminary Results from a Multicentre GP2 Collaborative Study

Velummylum V¹, Pathirage AI¹, Ruwanpathirana PS¹, Senanayake BSN¹

¹*Institute of Neurology, National Hospital of Sri Lanka*

Introduction: Atypical parkinsonian disorders (APD), including Progressive Supranuclear Palsy (PSP), Multiple System Atrophy (MSA), Dementia with Lewy Bodies (DLB), and Corticobasal Syndrome (CBS), are heterogeneous neurodegenerative conditions characterized by rapid progression, poor levodopa response, and functional disability. Data from South Asian populations remain limited.

Objective: To describe the clinical spectrum, cognitive profile, and functional status of patients with atypical parkinsonian disorders in Sri Lanka.

Methods: As part of the Global Parkinson's Genetics Program (GP2), this multicentre cross-sectional study (November 2025–February 2026) evaluated 62 patients with clinically suspected or diagnosed APD. Clinical phenotyping was performed using standardized MDS-PPSA assessments. Functional independence was assessed using the Barthel Index (BI), while cognition was evaluated using the Montreal Cognitive Assessment (MoCA). Diagnostic subgroups were compared using the Mann–Whitney U test. The association between cognition and functional independence was evaluated using Spearman's rank correlation.

Results: The cohort comprised PSP (n=36, 58%), MSA (n=15, 24.2%), DLB (n=7, 11.3%), and CBS (n=4, 6.5%). Median age at symptom onset was 67 years (IQR 61–73), with female predominance (56.5%). Early recurrent falls occurred in 94.4% of PSP patients, while vertical supranuclear gaze palsy was observed in 58.3%. Autonomic dysfunction was prominent in MSA (73.3%). DLB patients demonstrated frequent visual hallucinations (57.1%) and universal cognitive impairment, whereas CBS showed asymmetric rigidity (100%) and alien limb phenomenon (75%). Median BI was 65 (IQR 53.8–86.2), indicating moderate functional dependence. Median MoCA was lowest in DLB (13.0) and PSP (18.0). Patients with MoCA <18 had significantly lower BI scores (p=0.03). PSP patients demonstrated the greatest functional impairment. A weak but significant positive correlation was observed between MoCA and BI scores (Spearman's $\rho = 0.280$, p = 0.032), indicating that better cognitive function was associated with greater functional independence.

Conclusions: APDs demonstrate distinct clinical and cognitive profiles associated with functional disability and reduced QoL. This study provides regional data highlighting the need for earlier recognition and multidisciplinary management in Sri Lankan APD population.

Clinical Analysis of Progressive Supranuclear Palsy in Sri Lanka: Preliminary Results from a Cross-Sectional Collaborative Study with Global Parkinson's Genetics Program (GP2)

Pathirage AI¹, Velummylum V¹, Ruwanpathirana PS¹, Senanayake BSN¹

¹*Institute of Neurology, National Hospital of Sri Lanka*

Introduction and Objective: Progressive supranuclear palsy (PSP) is a heterogeneous tauopathy characterized by early postural instability and vertical gaze palsy. The objective of this study is to characterize the clinical phenotype of a Sri Lankan PSP cohort and evaluate correlations between disease severity, cognitive impairment, and functional independence.

Methodology: As part of the Global Parkinson's Genetics Program (GP2), this multicenter cross-sectional study (November 2025–February 2026) evaluated 36 patients using MDSPSP criteria. Severity was quantified via the PSP Rating Scale (PSP-RS), cognitive status via the Montreal Cognitive Assessment (MoCA), and functional independence via the Barthel Index (BI). Data were analyzed using Spearman's correlation (ρ) and multiple linear Regression.

Results: The cohort ($n=36$) had a median age of 68.0 years and median onset age of 65.5 years (male-to-female ratio 1.4:1). Predominant features included postural instability (97.2%), akinesia (94.4%), and ocular motor dysfunction (91.7%). Cognitive impairment was prevalent (72.2%; median MoCA = 18.0). Midbrain atrophy was confirmed in 50% of an imaged subset ($n=12$). Total PSP-RS scores correlated significantly with lower MoCA ($\rho = -0.626$, $p < 0.001$) and lower BI scores ($\rho = -0.887$, $p < 0.001$). Regression models showed all six PSP-RS domains significantly correlated negatively with BI scores, with Gait and Midline emerging as the primary independent driver of functional disability (standardized $\rho = -0.506$, $p < 0.001$). No individual domain independently predicted MoCA scores significantly.

Conclusion: In this cohort, axial motor impairment and gait instability are the most prominent clinical features and the strongest independent predictors of functional dependency. Further longitudinal research is required to evaluate how these drivers of disability evolve over the course of disease progression.

Patterns and predictors of uncontrolled hypertension among adults with hypertension in Sri Lanka

Rathnayake N¹, Mettananda C², Jayaweerabandara D³, Kumanan T⁴, Ralapanawa U⁵, Thangarajah B⁴, Manchanayake M¹, Jeyapragasam H¹, Ranasinghe P¹

¹Department of Pharmacology, Faculty of Medicine, University of Colombo, Sri Lanka

²Department of Pharmacology, Faculty of Medicine, University of Kelaniya, Sri Lanka

³National Hospital Galle, Sri Lanka

⁴Department of Medicine, University of Jaffna, Sri Lanka

⁵Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka

Introduction and Objectives: Hypertension control remains suboptimal globally, particularly in low- and middle-income countries, with many treated individuals failing to achieve target blood pressure (BP). This study aimed to describe the profile of individuals with treated but uncontrolled hypertension identified during May Measure Month Sri Lanka 2024 and evaluate factors associated with poor BP control.

Methods: A national cross-sectional opportunistic BP screening was conducted across all nine provinces of Sri Lanka (May–July 2024). Adults aged ≥ 18 years underwent three standardized BP measurements using validated automated devices, with the mean of the second and third readings analysed. Hypertension was defined as SBP ≥ 140 mmHg, DBP ≥ 90 mmHg, or antihypertensive use. Individuals on treatment were classified as controlled or uncontrolled. Sociodemographic, lifestyle, anthropometric, and comorbidity data were collected via interviewer-administered questionnaires.

Results: Despite prior diagnosis and treatment, 685 had uncontrolled BP. Most were ≥ 60 years (59.0% n=404), female (64.7% n=443). A Majority (95.0%) had undergone a BP assessment within the past year. Most participants were receiving monotherapy (57.5%), while 23.4% were on dual antihypertensive therapy. Statin and aspirin use was reported by 55.8% and 26.1%, respectively. Among the uncontrolled, 36.9% had co-morbid diabetes. A pescetarian dietary pattern (OR 0.27, p=0.038) and prior myocardial infarction (MI) ($\chi^2=7.92$, p=0.005) was associated with significantly lower odds of uncontrolled hypertension among treated.

Conclusions: Uncontrolled hypertension remained common among treated individuals. Pescetarian diet and prior MI were associated with better BP control, likely reflecting dietary effects and intensified secondary prevention following MI.

Health care delivery related factors associated with Adult vaccine hesitancy against epidemic-prone diseases in Anuradhapura district, Sri Lanka

Dharmasoma U.W.N.K.¹, Agampodi S.B.², Agampodi T.C.², Indu Herath³, Pramila Hashini³, Rajarathnam Kanapathy³, Wickramasinghe W.A.N.D.⁴

¹*Post graduate Institute of Medicine, University of Colombo*

²*International Vaccine Institute, South Korea*

³*South Asian Clinical Toxicology Research Collaboration, Faculty of Medicine, University of Peradeniya, Sri Lanka,*

⁴*Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

Background: Adult vaccine hesitancy is an emerging public health concern that can compromise immunization in epidemics. Understanding its associated factors related to health care delivery is essential for service modifications and targeted interventions.

Objectives: To identify the health care delivery related associated factors of vaccine hesitancy against epidemic-prone diseases among adults in the Anuradhapura District, Sri Lanka.

Methods: A community-based cross-sectional study was conducted from March to August 2025 using an interviewer administered questionnaire. A representative sample of 2,401 adults was recruited through multistage cluster sampling from Anuradhapura district. Ordinal logistic regression (SPSS 23.0) identified factors associated with varying levels of hesitancy ($p < 0.05$), with model assumptions assessed and satisfied.

Results: The response rate was 99.1%, with a mean age of 46.6 years (SD=14.4) and 66.7% females. Reliance on healthcare providers information about vaccines compared to other sources reduced hesitancy (aOR=0.7, 95% CI:0.6–0.9, $p < 0.001$), while positive attitudes decreased odds by 14% ($p < 0.001$); knowledge alone was not significant. Participants unwilling to pay for vaccines were significantly more hesitant (never pay vs money not an issue aOR=2.0, 95% CI=1.4–2.8; $p < 0.001$). Favorable past vaccination centre service experiences reduced hesitancy (aOR=0.6, 95% CI:0.5–0.9, $p < 0.001$). Further, willingness to accept vaccination from the private sector (aOR=0.8, 95% CI=0.5–0.8; $p < 0.001$) reduced the likelihood of higher hesitancy.

Conclusions: Adult vaccine hesitancy in Anuradhapura is driven primarily by peoples 'attitudes, trust in healthcare providers, and prior service experiences rather than knowledge alone. Strengthening provider communication, improving service quality, and addressing financial and access barriers are critical for reducing hesitancy

Poster Presentations

PP001 Knowledge and Perception of Public Health Midwives on Implementation of Mothers' Support Groups in Colombo District

Ushavarththani S, Tharanga Navodani KA

PP002 Transition Patterns of Depressive Symptoms Among Mothers From the Third Trimester of Pregnancy to One-Month Postpartum in Two Health Unit Areas in Galle

De Silva BVS, Ponnamperuma TT, Punchihewa GD, Kumari UDSCS, Devanmini SDLV, Dharmakeerthi WD, Wijesinghe CJ, De Silva PV

PP003 Musculoskeletal Symptoms and Associated Occupational Factors Among Hairdressers, Beauticians, and Related Workers in the Colombo Municipal Council Area, Sri Lanka

Lamis QR, Lankaarachchi HG, Lakshini KA, Kuruppu KATS, Sivashangar A

PP004 Availability and Accessibility of Electronic Cigarettes and Smokeless Tobacco Products in Colombo City

Asantha WAJB, Dineshkumar P, Nilaweera AI, Perera NCS, Abeyratne EHS, Perera KMN, Rajasuriya MC, Kapoor S

PP005 Manipulating Science to Influence Tobacco Taxation in Sri Lanka

Perera NCS, Abeyratne EHS, Asantha WAJB, Dineshkumar P, Nilaweera AI, Perera KMN, Rajasuriya MC, Kapoor S

PP006 Regional Variation in Pharyngeal Cancer Distribution in Sri Lanka: A Population-Based Analysis of Anatomical Subsites, 2015–2022

Atchuthan A

PP007 Occupational Exposure to Needle Stick Injuries Among Healthcare Workers in Teaching Hospital Batticaloa

Mayuran N, Sasikumar T, Suhagin S E, Vijayakanth P, Krishnatharshini P

PP008 Cancer Mortality Transition in Sri Lanka: Diverging Incidence, Improving Outcomes, and the Rising Impact of Competing Mortality in An Ageing Population

Atchuthan A

- PP009 Diagnostic Delay Signature: Inferring Late Cervical Cancer Presentation Using Stage Distribution and Mortality-To-Incidence Ratio Trends—Evidence From Sri Lanka**
Atchuthan A
- PP010 High-Risk Human Papillomavirus in a Subset of Head and Neck Carcinoma Patients, Sri Lanka**
Samaraweera B, Jayasekera KAMP, De Silva NWBKH, Sritharan G, Gunathilaka L, Wijayasiriwardhana J, Abeynayake JI
- PP011 Knowledge, Attitudes, and Practices of Healthcare Support Staff Regarding Exposure to Antineoplastic Drugs and Drug-Contaminated Waste At Apeksha Hospital**
Ranmini AJMH, Ranasinghe SS, Randew AGR, Rathnayake KJAC, Ediriweera MK
- PP012 Relationship Between Coping Strategies and Quality of Life in Patients Diagnosed With Chronic Kidney Disease in a Tertiary Care Hospital in Sri Lanka**
Deemantha H, Dayarathna A, De Silva N, Weliange S
- PP013 Knowledge, Attitudes and Practices Regarding Obstructive Sleep Apnoea Among Pregnant Women Attending Antenatal Clinics in Dompe Medical Officer of Health Area**
Piyumali PAP, Jyawardene DMS
- PP014 Perceived Effects of Health and Safety Practices and Contributory Factors Among Sanitation Workers At the Colombo North Teaching Hospital, Ragama, Sri Lanka**
Waidyasekara DDTA, Vitharana ES, Wattegedara HL, Wazil MS, Weerakkodi DS
- PP015 Knowledge and Awareness Regarding Identification of Autism Spectrum Disorder and Related Misconceptions Among Mothers of Children Under Five Years of Age in Central Sri Lanka**
Piyathissa HMPP, Jinadasa WGTM, Rathnayake WMPL, Wijesinghe HBIP, Kiridena MGDVK
- PP016 Parental Knowledge, Attitudes and Practices Related to the Risk of Their Children Being Exposed to Lead a Descriptive Cross-Sectional Study in Colombo North Teaching Hospital, Sri Lanka.**
Rathnayake NN, Ranaweera RSP, Rathnayaka GPN, Rathnayaka RMSN, Randenithenna TMJDK, Dayasiri KC

- PP017 Physical and Psychological Impact on Chronic Diseases and Wellbeing Level of the Elderly People in An Urban Area in Colombo District, Sri Lanka**
Abeysinghe AADSND, Kanthilatha N, Nahallage CAD, Weerathunga M, Abeygunawardhana RAB
- PP018 Clinicopathological Correlates of Molecular Subtypes in Breast Carcinoma: a Single Unit Experience**
Wijekoon WMRS, Dehigama DGUS, Gamage HHM, Dissanayake DMHAB, Kanchana WPL
- PP019 Beyond Survival: Quality of Life After Breast Cancer Surgery – a Prospective Study**
Jayalath NT, Silvapulle WS, Dissanayake DMCHB, Kanchana WPL
- PP020 Distribution Patterns and Demographic Profiling of Malignancies in a Tertiary Surgical Unit: a One-Year Retrospective Analysis**
Uthpala LWDD, Mallawa J, Senevirathne SMRDK
- PP021 Optimizing Patient-Centered Colonoscopy Preparation Pathways in a Tertiary Surgical Unit: A Prospective Quality Improvement Study**
Dissanayake DMCHB, Ranaweera KRKLK, Silvapulle WS, Jayalath NT, Wijesinghe K
- PP022 Quality of Life in Patients With Interstitial Lung Diseases in a Respiratory Clinic in Sri Jayewardenepura General Hospital**
Illukkumbura NSI, Perera SG
- PP023 Pilot Testing of the Sri Lankan Interstitial Lung Disease Registry Questionnaire At National Hospital Galle**
Epa Arachchi HR, Weeratunga P, Rathnapala A
- PP024 The Impact of Household Cooking Fuel and Exposure Duration on Paediatric Sleep Quality in Sri Lanka: a Meditational Analysis**
Thilakarathna HMCRC, Kariyawasam KHAY, Jayasinghe JMDC, Karunarathne CB, Priyanga P, Manomi KAN, Madusshica R, Kumarasiri OKDVT, Kumaranathunga PND, Chandrasekara CMJC, Rishadha F, Wijayasinghe WADHM, Dissanayake P, Bowatte G, Waidyasekera H, Goonewardena CSE, Amarasekara AATD, Lin C, Schwarze J, Madegedara D, Yasaratne D, Wimalasekera SW

- PP025 The epidemiological characteristics and factors associated with COPD control among patients attending medical clinics in public hospitals in the Southern Province, Sri Lanka**
Geethan WN , Herath HMM
- PP026 Short-Term Outcomes of Cadaveric and Living Donor Kidney Transplantation: a Single Center Experience**
 Joel Arudchelvam, Rukshan Siriwardana, Hansani Hagodagedara, Thushan Gooneratne, Rezni Cassi
- PP027 Management Strategies and Early Clinical Outcomes of Aortic Dissection: a Single-Centre Experience From a Tertiary Vascular Unit**
 Joel Arudchelvam, Rukshan Siriwardana, Hansani Hagodagedara, Thushan Gooneratne, Rezni Cassim
- PP028 Withdrawn**
- PP029 Evaluation of the Diagnostic Accuracy of the Alvarado Score in Adult Patients With Suspected Acute Appendicitis Undergoing Appendicectomy**
 Bandara WMSS, Abeysinghe AHMCD, Atapattu AMGN, Bandara KKKS, Bandara KRMK, Bandara RMST, Dalawella DHKMP, Wickramasinghe ND
- PP030 Impact of Waiting List for Laparoscopic Cholecystectomy – When Is the Best?**
Epitawala EAIK, Gobinath S, Tillakaratne B, Siriwardana RC
- PP031 Antibiotic Prophylaxis Practices in Inguinal Hernia Mesh Repair: a Retrospective Study From a Tertiary Care Center**
 Abeywickrama RP, Kumarasinghe JPM, Seneviratne RW, Kommilage DS
- PP032 Changing Trends in Hepatocellular Carcinoma Demographics Over Twelve Years At a Tertiary Referral Centre in Sri Lanka**
 Tillakaratne B, Tennakoon K, Appuhamy C, Niriella M, Dassanayake U, Gunetilleke B, Withanage R, Siriwardana RC
- PP033 Paratesticular Leiomyosarcoma: the First Reported Case From Sri Lanka**
Sallay NS, Dayaratne T, Ariyaratne HLDS
- PP034 Epididymal Cystadenocarcinoma Masked By a Giant Hydrocele: a Diagnostic Challenge**
Sallay NS, Ariyaratne HLDS, Isthiyak ARM

- PP035 Health-Related Quality of Life and Self-Care Knowledge Among Patients With Diabetic Foot Ulcers in the Surgical Units of Colombo North Teaching Hospital**
Herath AHMLC, Herath HMMH, Herath HMJM, Herath HMCK, Hayesha WAH, Mahendra BAGG
- PP036 Cytology -Histology Correlation of the Bethesda Category Iii Lesions in Thyroidectomy Specimen; Clinical Audit in a Tertiary Care Center in Sri Lanka.**
Rajapakse MM, Abeygunawardhana DK
- PP037 Medicolegal Assessment of a Sharp Force Cut to the Neck in a Survivor**
Haroon AM
- PP038 Life Threatening Anaphylaxis and Stress Cardiomyopathy Following Non Grievous Assault a Medicolegal Perspective**
Haroon AM
- PP039 An Assessment of Caregivers' Knowledge, Attitudes, and Practices Regarding Child Abuse in Sri Lanka**
Muthulingam T, Thivaharan Y, Wijayawardhana KWSM, Kitulwatte IDG
- PP040 Fatalities From Illegal Electrification Used for Animal Deterrence in Sri Lanka: a Case Series**
Ekanayake EMKB, Vadysinghe AN, Izzath MHMA, Senasinghe DPP, Siddique S, Sanjaya B, Kumarasinghe WGGB, Wickramasinghe CU
- PP041 Financial Toxicity Among Colorectal Cancer Patients in Sri Lanka: Challenges in a Lower-Middle-Income Country Despite Free Universal Healthcare**
Senanayake D, Mithushan J, Jayarajah U, Wimalasena G, Wijeratne DTW, Gunasekera S, Booth C, Gyawali B, Seneviratne SA
- PP042 Factors Associated With Quality of Life Among Female Breast Cancer Patients: a Cross-Sectional Study At a Tertiary Cancer Referral Centre in Sri Lanka**
Ziya ZDZH, Chandraratne NH, Perera PRK, Marasinghe MTN, De Silva AIA, Vidanapathirana DM, Seneviwickrama KLMD
- PP043 Comparison of Lymph Node Harvest in Laparoscopic Vs. Open Colorectal Cancer Resections**
Dissanayake PG, Wickramasinghe DP, Perera MPM, Wickramasinghe DG, Wannakuwatte RA

- PP044 Two Unusual Clinical Presentations of Metastatic Deposits of Follicular Thyroid Carcinoma**
Abeygunawardhana DK, Rajapakse MM, Amaraweera P
- PP045 Clinical Profile and Pattern of Aeroallergen Sensitization Among Children With Allergic-Rhinitis Attending a Tertiary Care Center in Sri Lanka**
Suriapperuma TNP, Wadasinghe D, Badanasinghe CN
- PP046 Association of Indoor Pm_{2.5} Exposure and Cooking Fuel Type With Quality of Life Among Pregnant Women in Kandy and Colombo, Sri Lanka**
Kariyawasam KHAY, Thilakarathna HMCRK, Jayasinghe JMDC, Karunarathne CB, Priyanga P, Manomi KAN, Madusshica R, Kumarasiri OKDVT, Rishadha MRF, Kumaranathunga PND, Wijayasinghe WADHM, Chandrasekara CMJC, Kaththiriarachchi LS, Dissanayake P, Bowatte G, Waidyasekera H, Goonewardena CSE, Amarasekara AATD, Lin C, Schwarze J, Madegedara D, Yasaratne D, Wimalasekera SW
- PP047 Comparison of Lung Function Assessed By Spirometry in Patients With Type 2 Diabetes Mellitus and Prediabetes, and Healthy Individuals Stratified By Body Mass Index - a Preliminary Analysis**
Samarasinghe SM, Katulanda P, Prathapan S, Amarasiri WADL
- PP048 Preliminary Study: Estimation of Stature From Selected Lower Limb Bones in a Sri Lankan Cadaveric Study**
Rajapakshe DPWR, Perera HTON, Perera HVU, De Zoysa TN, Dissanayake S
- PP049 Preliminary Study: Estimation of Stature From Selected Upper Limb Bones in a Sri Lankan Cadaveric Study**
De Zoysa TN, Perera HVU, Perera HTON, Rajapakshe DPWR, Dissanayake S
- PP050 Patterns and Characteristics of Sexual and Gender-Based Violence Among Perimenopausal Women in Sri Lanka: a Police Record Based Cross-Sectional Study (2013 - 2021)**
Wickramasinghe SW, Liyanage KA, Perera KSK, Dilshara MMS, Parनाविताना YKS, Fernando KRT, Kitulwatte IDG, Kasturiratne KTAA, Edirisinghe PAS, Balasooriya BMYM
- PP051 Trends and Age-Specific Patterns of Childhood and Adolescent Cancer Incidence in Sri Lanka: a National Registry Analysis (2005–2022)**
Jayathilake JHABN, Liyanage VDP

- PP052 The Effect of Sleep Quality on Academic Performance Among Third-Year Engineering Undergraduates of Selected Universities in the Colombo District**
Matharaarachchi VDR, Manage ND, Meegoda MKDCJ, Mahawattage MDPV, Kumarasiri APPP, Nimsara NHKS, Rathnayake AJIS, Gamage AU
- PP053 Anthropometric Study of Foot Morphology to Determine Sex and Stature Among Medical Undergraduates of the University of Peradeniya, Sri Lanka**
Yahthurshan S, Anuradha HAC, Ravindu BMT, Weerasekara WGVG, Yasith KGP, Zahra F, Ekanayake EMKB, Vadysinghe AN
- PP054 Alcohol and Substance Use Among Perpetrators of Police-Reported Domestic Violence Cases in Sri Lanka: An Island Wide Descriptive Study**
Balasooriya BMYM, Parनावितана YKS, Liyanage KA, Perera KSK, Dilshara MMS, Wickramasinghe SW, Fernando KRT, Kitulwatte IDG, Kasturiratne KTAA, Edirisinghe PAS
- PP055 Determinants of Conviction in Rape and Statutory Rape Cases: a High Court Convicted Case Analysis From Western Province, Sri Lanka**
Perera KSK, Edirisinghe PAS, Kithulwatte IDG, Kasturiratne A, Liyanage KA, Dilshara MMS, Parनावितана YKS, Wickramasinghe SW, Fernando KRT, Patabandige NSMS, Perera S
- PP056 “We Never Thought About How to Put a Price on Our Pain and Suffering”; Patients’ Perceptions and Challenges on Valuing Intangible Cost Associated With Cutaneous Leishmaniasis in Rural Sri Lanka: a Qualitative Study**
Lalani JMG, Agampodi TC, Prasanna RPIR, Agampodi SB, Wickramasinghe ND
- PP057 In Silico Repurposing of Antidiabetic Therapeutics for Nafld: Targeting the IL-6 Inflammatory Axis**
Wickramaratne DV, Hettihewa LM, Samarasinghe SM, and Faizan M
- PP058 Humanising Critical Care: a Quality Improvement Initiative for Holistic Palliative Care Integration in a Resource-Limited High Dependency Unit in Sri Lanka**
De Silva AKTN, Siraj MI, Nagasinghe SU
- PP059 Prevalence and Factors Associated With Malnutrition Among Adult Cancer Patients Admitted to Apeksha Hospital, Maharagama, in 2024/25**
Mallawaarachchi S, Madarasinghe HP, Senarathna SATB, Pushpavimala IU, Gunasekera HDTS, Mallawaarachchi WPPK, Kaluarachchi V

- PP060 Clinical Audit on the Implementation of Post-Operative Medical Nutrition Therapy Following Eras Protocol in the Icu, Nhs, Colombo**
Madarasinghe HP, Mallawaarachchi S
- PP061 The Relationship Between the Body Mass Index, Body Image Perception, and Dietary Habits Among the Students At the Faculty of Law, University of Colombo**
Amaraweera VM, Weerasinghe S, Maleesha V
- PP062 Chronic Dietary Exposure to Foodborne Toxicants: Implications for the Pathogenesis of Type 2 Diabetes Mellitus**
Panagoda POK, Alwis MSN, Hennayaka HMAM, Dissanayake DMDD, Tennakoon TDDT
- PP063 Knowledge, Attitudes, and Factors Influencing Nutritional Practices Among Chronic Obstructive Pulmonary Disease (COPD) Patients Attending a Selected Chest Clinic in Colombo**
Vickneshwaran M, Kanagasabesan V, Varatharajah N, Sudusinghe VL, Seneviratne S
- PP064 Comparative Analysis of Basophil Activation Test Versus IgE Levels in Predicting Clinical Reactivity Patterns in Patients With Alpha-Gal Syndrome**
Amaya T, Dissanayake C, Chathurangika H, Dissanayake M, Jayamali J, Danasekara S, Amarasekara U, Ranasinghe T, Aberathna IS, Malavige N, Jeewandara C
- PP065 Knowledge on preanalytical phase in clinical chemistry in a cohort of pre-intern medical graduates in Sri Lanka**
Fernando SCJ, Fernando ISIP, Seneviwickrama KLMD, Dilanthi HW, Jayawardana RDP, Vidanapathirana DM, Premadasa MGTW
- PP066 Incest in Sri Lanka Is Characterized By Predominance Among Minors and Critical Delays in Reporting - a Police Data Analysis**
Paranavitana YKS, Liyanage KA, Perera KSK, Dilshara MMS, Wickramasinghe SW, Fernando KRT, Balasooriya BMYM, Kitulwatte IDG, Kasturiratne KTAA, Edirisinghe PAS
- PP067 Swot Analysis of Gender-Based Violence Case Handling in Sri Lanka: Perspectives of High Court Judges**
Dilshara MMS, Perera KSK, Liyanage KA, Paranavitana YKS, Wickramasinghe SW, Fernando KRT, Edirisinghe PAS, Kithulwatte IDG, Edirisinghe EADA, Kaushalya ITMSS

- PP068 Clinicians' Perspectives on the Management of Survivors of Sexual and Gender-Based Violence in Three Major Provinces of Sri Lanka**
Fernando KRT, Wickramasinghe SW, Liyanage KA, Perera KSK, Dilshara MMS, Parनावितана YKS, Balasooriya BMYM, Kitulwatte IDG, Kasturiratne KTAA, Edirisinghe PAS
- PP069 Sex Determination By Evaluation of Occipital Condyles on Dry Human Skulls From Sri Lankan Context**
 Ranaweera L, Perera WNS, Jayasena A, Cabral E, Cabral R
- PP070 Knowledge and Attitudes About Preventive Practices of Dementia Care Among Science Undergraduates in Colombo District**
Sameeha MFF, Wickramasekara MHM, Rathnayake CS, De Silva NT
- PP071 Determinants of Hepatitis and Rise in Alt in Multi-Drug Therapy for Leprosy**
Arudchelvam U, Thubellage DS, De Silva TSD, Kahawita IP
- PP072 Non-Randomized Interventional Study on the 5A'S Smoking Cessation Method in the Eastern Naval Area (Ena), 2021–2022: a Public Health Approach to Resilience During a Crisis Period**
Samarawickrama DI, Samarawickrama MMM
- PP073 Contribution of Primary Health Care in the Management and Referral of Psychiatric Patients in a Rural District of Sri Lanka**
 Jayathilake EPGCA, Jayasena RRT, Jayasinghe JMCS, Jayathilaka JMNJ, Jayathilaka SDMK, Jayawardhana WPSN, Jayaweera WNS, Abeyrathna DMPLK
- PP074 Factors Affecting the Utilization of Primary Psychiatric Services: Individual-Level Barriers Among Psychiatric Patients in Teaching Hospital, Anuradhapura**
 Jayathilake EPGCA, Jayasena RRT, Jayasinghe JMCS, Jayathilaka JMNJ, Jayathilaka SDMK, Jayawardhana WPSN, Jayaweera WNS, Abeyrathna DMPLK
- PP075 Social Support Among Postpartum Mothers in Urban and Rural Moh Areas of Colombo District, Sri Lanka**
Mahanama LPKSM
- PP076 Evaluation of Communication Skills of Medical Students: Identifying Domain-Specific Gaps in Undergraduate Training**
 Krishnapradeep S, Abeykoon WDSE, De Silva HLSS, Wijethunga TV, Baddevithana BVDS, Abeyagunawardena S, Pathirage LPMMK

- PP077 Is Eosinophilia Mandatory in DRESS? a Case Series Evaluating Peripheral and Tissue Eosinophilia**
Viduranga HS, Arudchelvam U, Jayakody S, Ranmohottige USN, Kahawita IP
- PP078 Eosinophilia & Severity of Liver Injury in Dress Syndrome: Insights From a Case Series**
Viduranga HS, Arudchelvam U, Jayakody S, Ranmohottige USN, Kahawita IP,
- PP079 Molecular Characterization and Phylogenetic Analysis of Toxoplasma Gondii Isolates From Immunocompromised Patients in Sri Lanka**
 Banneheke H, Weeraooriya GPC
- PP080 Elderly Patients in Intensive Care Unit(Icu): Clinical Profiles and Mortality Trends At Ashraff Memorial Base Hospital (Amh) Kalmunai, Sri Lanka**
Silmy MBM, Ashmah AFF, Karunananda DAOI
- PP081 Moderating Effect of Self-Efficacy on the Relationship Between Functional Mobility and Physical Quality of Life Among Residents of Selected Elderly Homes in the Kurunegala District**
Amani MIE, Wettasinghe AH
- PP082 Population Ageing, Non-Communicable Disease Burden, and Financial Implications in Sri Lanka: a Secondary Data Analysis (2012–2024)**
Ranasinghe D, Nandasena S, Ratnayake D, Gunawardana U, Soysa ND, Udayanga V
- PP083 Impact of a Multidisciplinary Orthogeriatric Pathway on Hip Fracture Outcomes: a Prospective Clinical Audit**
Wijayabandara MDMS, Dissanayake DMTSK, Ihsana I, Ranasinghe RAKK, Jayasinghe YB, Jayarathne ASN, Wijesinghe WMNC, Kiriwattuduwa SNK, Peiris SRKK, Vithana DPAK
- PP084 Assessment of Public Knowledge and Attitudes Toward Visual Impairment in a Selected City in Colombo, Sri Lanka**
Fernando AG, Wickramasekara MHM
- PP085 Barriers and Determinants of Glaucoma Medication Adherence Among Patients Attending the University Hospital Kotelawala Defence University Ophthalmology Clinic**
Shajahan M, Dissanayaka DAK, Aluthge SD, Bandara SMRS, Alakolanga AGNK, Paranaliyanage PK, De Alwis Seneviratne SR, Prem Anand S

- PP086 The Prevalence of Early Signs and Symptoms of Myopia and Its Associated Factors in Grade 10 Adolescents From Selected Government Schools in Colombo District.**
Vomal MGV, Wickramarathna SC, Anusarani UAA, Ranagala HTD, Pravienan S
- PP087 Sight-Threatening Diabetic Retinopathy in Sri Lanka: a Comprehensive Analysis of Behavioural Predictors and Barriers**
Weerakoon KGSH, Gunasekara HMEH, Minsandee HWM, Gowryshanker Y, Sameera JF, Matthias AT, Prathapan S
- PP088 Comparative Analysis of Epidemiological Research Output: Metabolic Dysfunction-Associated Steatotic Liver Disease Vs. Alcohol-Associated Liver Disease**
Silva BK, Senadheera DP, Karunanayake RC, Niriella MA, de Silva J, de Silva T
- PP089 Liver Failure and Patterns of Multiorgan Involvement in Fatal Dengue: Findings From National Death Analysis, Sri Lanka, 2024**
Wimalasundera AR, Perera MHMTS, Perera HNT, Kothalawala KGD, Lokunarangoda NC, Wimalasuriya SAH, Bandara TD, Samaraweera P, Amarasekara J, Ganeshan S, Dheerasinghe DSAF, De Silva S, Wijewickrama A, Idampitiya D
- PP090 Knowledge, Attitudes and Practices of Telemedicine Among Adult Diabetes Mellitus Patients At the National Hospital of Sri Lanka.**
Suwendiran S, Liyanage KLDCN, Choda T, Kalupahana MN, Dineshan RJMS
- PP091 Discordant Imaging and Histopathology in Rapidly Progressive Cholestatic Liver Disease: A Diagnostic Challenge within the Small-Duct PSC–Vanishing Bile Duct Syndrome Spectrum**
Theannilawu S, Ratnayake A, Rajendra JCP, Senanayake M
- PP092 Clinical Characteristics, Histopathological Profile and Treatment Outcomes of Autoimmune Hepatitis: a Prospective Single-Centre Cohort Study**
Niriella MA, Karunanayake RC, Marasinghe SH, Chathurika AA, Dassanayake UB, Dassanayake AS, Thillakaratne SB, Siriwardana RC, Hewavisenth JDS
- PP093 Prevalence, Patterns, and Clinical Predictors of Oesophageal Motility Disorders: a Retrospective Study From a Tertiary Centre in Sri Lanka**
Niruban S, Aryasingha S, Wickramasinghe N

- PP094 Validation of Fib-4 Among South Asians With Masld and Identification of the Optimal Cutoff to Screen for Advanced Fibrosis**
Mettananda KCD, Madhubhashini A, Ranaweera L, Fernando JSU, Pathmeswaran A, Dassanayake AS, Ranawaka C, Mettananda C
- PP095 Mild Crohn's Disease in Sri Lanka: Nationwide Study**
Niriella M, Jayasena H, Gunarathna WPV, Abeynayake D, Aryasingha S, Kumarasena S, Senanayake M, Fernandopulle N, Upanishad I, Dinamithra NP, Wijewantha H, Keppetiyagama C, Balendran K, Kajendran A, Liyanarachchi T, Subasinghe D, Peiris R, Subasinghe C, Piyaratne C, Ranawaka C, Herath PR, Kesavan T, Thalagala E, Perera KRPP, Aponso T, Vijitharan V, Rishikesavan V, Wanniarachchi N, Kusumpokuna KPAS, Senanayake HKK
- PP096 Long-Term Outcomes of Inflammatory Bowel Disease in a Sri Lankan Cohort: ≥8 Years of Follow-Up Data from the SLSG Sri Lanka IBD National Registry (SLSG-SLIBDNR)**
Niriella M, Abeynayake D, Jayasena H, Gunarathna WPV, Aryasingha S, Kumarasena S, Senanayake M, Fernandopulle N, Upanishad I, Dinamithra NP, Wijewantha H, Keppetiyagama C, Balendran K, Kajendran A, Liyanarachchi T, Subasinghe D, Peiris R, Subasinghe C, Piyaratne C, Kumara RAC, Herath PR, Kesavan T, Thalagala E, Perera KRPP, Aponso T, Vijitharan V, Rishikesavan V, Wanniarachchi N, Kusumpokuna KPAS, Senanayake HKK
- PP097 Association of Polygenic Risk Score (Prs) With Advanced Liver Disease in Patients With Metabolic-Dysfunction Associated Steatohepatitis (Mash): Evidence From a Sri Lankan Cohort.**
Samarasinghe SASM, Hewage AS, Siriwardana RC, Tennekoon KH, Niriella MA, Silva SD, Abeysuriya V
- PP098 Use of Intravenous Infliximab in the Management of Paediatric Inflammatory Bowel Disease: a Single-Center Experience**
Samaranayake M, Hathagoda W, Rajindrajith S
- PP099 Assessing the Prevalence and Disease-Modifying Role of Hsd17B13 Rs72613567(A-Ins) Polymorphism in Metabolic Dysfunction Associated Steatotic Liver Disease in a Sri Lankan Cohort**
Jayasinghe WV, Padeniya AGPM, Premawardhena AP, Nawagamuwa IK, Nandasena IK, Senadeera SPNN, Karunanayeke RC, Silva BM, Senadheera HMDP, Wijesingha IP, Dharmarathne HASG, Niriella MA, Perera IC

- PP100 Investigating the Association Between the Gckr Rs1260326 (P446L) Variant With Metabolic Dysfunction-Associated Steatotic Liver Disease (Masld) in the Sri Lankan Population**
Nawagamuwa IK, Padeniya AGPM, Premawardhena AP, Jayasinghe WV, Nandasena CK, Senadeera SPNN, Karunanayake RC, Silva BM, Senadheera HMDP, Wijesingha IP, Dharmarathne HASG, Niriella MA, Perera IC
- PP101 Coordination Vs. Force Evaluating Biomarkers of Biofeedback Success in Dyssynergic Defecation**
Dissanayake PG, Wickramasinghe NA, Wickramasinghe DP, Perera MPM, Wannakuwatte RA
- PP102 Beyond Portal Hypertension: the Unusual Tale of Chylous Ascites**
Yatapana NA, Subasinghe SASP
- PP103 High-Resolution Oesophageal Manometry in the Evaluation of Adult-Onset Dysphagia: Preliminary Findings From a Prospective Sri Lankan Tertiary-Care Study**
Galhena TD, Wickramasinghe NA, Ariyasinghe VJS, Devanarayane NM
- PP104 Awareness About the Protection of Children From Sexual Offences Act Among Health Care Professionals and Their Role in the Care of Child Sexual Abuse Victims**
John J
- PP105 Nutritional Interventions Directed At Children Under Five Years With Acute Malnutrition in Galle District, Degree of Improvement in the Nutritional Status and Associated Factors**
Chathurangika KGGK, Chandrasiri A
- PP106 A Novel Multi-Stage Comparison of Young Adults' Perceptions of Current, Transitional and Emerging Medical Biotechnologies in Colombo, Sri Lanka**
Gunawardane H, Sathsara WAS
- PP107 Scrolling Time, Academic Performance and Mental Well-Being of Medical Students in the Faculty of Medicine, University of Ruhuna**
 Eranda NLK, Muflique FS, Fasni MFSH, Fernando SVH, Gajanayaka GMAUL, Gamlath GMSW, Jayawardene AJPM
- PP108 The Prevalence of Stress and Its Associated Factors Among University Undergraduates At the University of Kelaniya, Sri Lanka**

Ilukwaththa IBD, Jagathsinghe HAU, Jayakody IU, Jayakody TAT, Jayalath LL, Pannala TC

PP109 Exposure to Cannabis Promotion, the Factors Associated and the Association With Attitudes Towards Cannabis Among Gce A/L Students in the Western Province, Sri Lanka.

Perera KMN, De Silva UTC, De Silva WTC, Deepaka KHGT, Dehara KAC, Deshapriya HGAK

PP110 Knowledge Among Public on Abortion in a Period of Legal Transition: a Cross-Sectional Study in a Sri Lankan Teaching Hospital

Mendis G, Felician A, Hansanee A, Sateha H, Tissera T, Seneviwickrama M, Ubeysekara N

PP111 Knowledge and Practices Regarding Febrile Convulsions and Their Association, Among Primary Caregivers of Children Admitted for Fever At Lady Ridgeway Hospital.

Disshawrni R, Disanayaka DMVS, Disanayaka HDA, Dissanayake SR, Ponnampuruma GG

PP112 National Assessment of Menstrual Health, Hygiene and Period Poverty in Sri Lanka: Knowledge, Practices, Lived Experiences and Equity Gaps

Fernando WMPA, Batuwanthudawe BKR, Tennakoon GMJ, Wijesinghe KGSD, Wijesinghe MSD, Fernando A

PP113 Qualitative Study to Explore the Underlying Causes of Hesitancy to Vaccines Against Epidemic-Prone Diseases Among Adults in Sri Lanka

Dharmasoma UWNK, Agampodi SB, Agampodi TC, Eranda M, Sanjula B, Wickramasinghe WAND

PP114 Spatiotemporal Distribution of Chikungunya in Sri Lanka, 2025

Gunatilake AWPI, Hathamuna AI, Chandrasena H, Karunapema P, Tissera H

PP115 Beyond Individual Behaviour: A Qualitative Exploration of Sleep Hygiene Determinants among Medical Students in Sri Lanka

Gunatilake AWPI, Vithana C

PP116 Silent Thirst: Chronic Dehydration and Its Impact on Health and Learning in School Children

Perera PUM, Sirithunga GDR, Jayaneththi DLMTS, Adhikari AAMH, Wangdi SL, Senadheera SPCM, Rodrigo GDI

- PP117 Nutritional Status and the Methods of Nutritional Rehabilitation in Children With Chronic Liver Diseases, Attending the Paediatric Liver Unit of Colombo North Centre for Liver Diseases.**
Fernando MP, Senevirathne SMDS, Senevirathne HMNM, Senevirathna KATS, Sovis WPA, Shakir ASM, Sewmini PNI
- PP118 Sociodemographic Characteristics and Clinical Spectrum of Children With Laboratory Confirmed Influenza Infection in a Tertiary Care Hospital in Sri Lanka**
Ranasinghe MM, Modaragama AS, De Silva HHDNM, Mettananda S
- PP119 Cross-Cultural Adaptation and Psychometric Validation of the Sinhala Brief Autism Mealtime Behaviour Inventory (BAMBI).**
Bandara SH, Hettiarachchi S
- PP120 Measurement of the Body Composition of Infants Aged 6-12 Months Old, Using Deuterium Dilution Technique**
Bandara T, Fernando GHS, Ubeysekara LB, Thrimavitharana AM, Hettiarachchi M, Amarasena S
- PP121 Association Between Iron Deficiency Anemia and Febrile Seizures in Children: a Systematic Review and Meta-Analysis**
Dissanayaka DMSM, Bopitiya SR, Jayasooriya KAHS, Hassan MHSM, Jayasundara RJMKA
- PP122 Little Hands, Safe Lines - Reducing Accidental Peripheral Iv Cannula Removal in Young Children: a Quality Improvement Project**
Dassanayake NSS, Gamage UIA, Dilakshika BGD, Jayasundara RJMKA, Hassan MHSM
- PP123 Parental Knowledge and Practices Regarding Urinary Tract Infection in Children in a Selected Population in Sri Lanka**
Athapathu AS, Seneviratne P, Weerasinghe SS, Fonseka TR, Thalgahagoda S, Mettananda S
- PP124 Food Security and Malnutrition Among Children Between 6 Months to 17 Years in Rathmalana Moh Area; a Descriptive Study**
Balalla VD, Seneviratne MWNS, Rajawardana RWMDT, Lhamo N, Dissanayake DMPS, Srikanth P, Dalpatadu SAC

- PP125 Promotion of Tobacco and Alcohol to School Students At Inter-School Sports Events in Colombo, Sri Lanka**
Dhanushika GAN, Dharmathilaka NJ, Dilshani WATP, Dissanayaka DMRT, Dissanayake DKHMWDB, Dharmawardhana YCP, Athauda LK
- PP126 Predictors of Quality of Life of Adults With Physical Disabilities Residing in Care Homes in Colombo District**
Ananda R, Gunarathne NK, Costa GRN, De Silva DLA, PKB Mahesh
- PP127 Prevalence of Energy Drink Consumption Among A/L Students in Selected Schools in Colombo District and Its Association With Sleep Quality and Academic Performance**
Siriwardena PPGAG, Samarasinghe DN, Rupasinghe RADHS, Luksagini R, Chandrasiri MGYA
- PP128 Knowledge, Perception, Accessibility and Usage of Contraceptives Among Women Aged 18–49 Years in Estate Community, Thalawakele, Nuwara Eliya District**
Alahendra MP, Ahamed NAZ, Ahamed SAM, Akila A
- PP129 Development of An Evidence-Based Framework for Ncd Prevention Health Communication Through Facebook in Sri Lanka**
Wanasinghe T, Athauda LK, Abeykoon A, Chandratilake MN, Kasturiratne A
- PP130 Patient Level Factors Associated With Acute Exacerbation of Asthma Among Adult Metered-Dose Inhaler (Mdi) Users Seeking Treatment At the Respiratory Medicine Unit of Teaching Hospital Kurunegala: a Case-Control Study in Kurunegala District**
Galappaththi SN, Chandraratne N
- PP131 Healthcare Provider Level Factors Associated With Acute Exacerbation of Asthma Among Adult Metered-Dose Inhaler (Mdi) Users Seeking Treatment At the Respiratory Medicine Unit of Teaching Hospital Kurunegala: a Case-Control Study in Kurunegala District**
Galappaththi SN, Chandraratne N
- PP132 Barriers to Physical Activity and Their Association With Physical Activity Level Among Elders Attending Outpatient Department At District General Hospital – Horana**
Palihawadana R, Jayakody HG

- PP133 “Charting With Care” Improving Completeness of Paediatric Admission Clerking Through a Ward-Based Quality Improvement Initiative**
Dissanayaka DMSM, Hassan MHSM, Bopitiya SR, Jayasundara RJMKA, Jayasooriya KAHS
- PP134 “Cooling the Fear” Improving Caregivers’ Knowledge on Childhood Fever Management Through a Clinic-Based Quality Improvement Initiative**
Dissanayaka DMSM, Hassan MHSM, Bopitiya SR, Jayasundara RJMKA, Jayasooriya KAHS
- PP135 International Childhood Screen Use Guidelines: a Review of Domains Assessed Across Global Recommendations**
 Padeniya A, Gunaratne BRRN, Nandasena S, Ranasinghe JMSD
- PP136 Clinical, Biochemical and Histological Spectrum of Paediatric Autoimmune Hepatitis in Sri Lanka: a Single-Centre Retrospective Cohort Study**
Thanthiriwaththa CD, Athauda YN, Siriwardana RC, Gunatilleke B, Fernando M
- PP137 Prevalence of Adverse Childhood Experiences Among School-Going Adolescents: Preliminary Results of a Study From Northern Sri Lanka**
Arunath V, Purushothaman U, Mettananda S
- PP138 Impact of Adverse Childhood Experiences and Health Risk Behaviours on Adolescent Suicidality and Self-Harm: Preliminary Results of a Study From Northern Sri Lanka**
Arunath V, Purushothaman U, Mettananda S
- PP139 Effect of Simulation-Based Paediatric Airway Skills Training on Knowledge, Practical Competence and Emotional Safety Among Medical Undergraduates in Sri Lanka**
 SAC Dalpatadu, TCMGDP Cooray, D Navarathne, KCS Dalpatadu
- PP141 Clinical and Genetic Spectrum of Paediatric Alagille Syndrome in Sri Lanka: a Single-Centre Experience**
Thanthiriwaththa CD, Athauda YN, Tillakaratne B, Appuhamy C, Fernando M
- PP142 Factors Affecting Medication Adherence Among Children With Epilepsy At a Tertiary Care Hospital, Sri Lanka: a Qualitative Study**
Modaragama AS, Jayasinghe JAAJ, Dalpatadu KCS, Dalpatadu SAC

- PP143 Barriers to Early Detection of Childhood Leprosy: a Systematic Review of Diagnostic Challenges and Delays**
Perera AANN, Pathirage AI, Perera CD
- PP144 Introducing the Wechsler Preschool and Primary Scale of Intelligence, Fourth Edition (Wppsi-Iv) for Early Childhood Cognitive Assessment in Sri Lanka: a Feasibility Study**
Jayasinghe JMDC, Karunarathne CB, Kariyawasam KHAY, Thilakarathna HMCRK, Priyanga P, Manomi KAN, Madusshica R, Rishadha F, Kumaranathunga PND, Kumarasiri OKDVT, Wijayasinghe WADHM, Chandrasekara CMJC, Gallage NA, Wijesekara RGKP, Kaththiriarachchi LS, Dissanayake PV, Goonewardena CSE, Lin C, Schwarze J, Madegedara D, Yasaratne D, Wimalasekera SW
- PP145 The Impact of a Competitive Exam on the Mental Health Among Young Adults; Experience From a National School in Colombo District, Sri Lanka.**
Kurukulasuriya SD, Dalpatadu SAC
- PP146 Optimizing Professional Medical Education Via a Learning Management System Driven Self-Directed Learning Approach**
 Fernando SD, Satharasinghe DEL
- PP147 The Psychological Impact of Anaphylaxis Among An Adult Population At a Specialized Clinic in Sri Lanka.**
Ranasinghe TND, Aberathna IS, Chathurangika H, Jayamali J, Danasekara S, Amarasekara UPK, Ariyaratne D, Rohanachandra YM, Malavige GN, Jeewandara C
- PP148 Qualitative Evaluation of Glycation Induced Spectral Changes in Serum Using Raman Spectroscopy for Hyperglycemia Detection; a Novel Diagnostic Approach for Monitoring Diabetes Mellitus**
 Katulanda G, Ranaweera CB, Kottahachchi DU, Jayasekara LASP, Senadeera SPNN, Gunawardene S, Jayaweera HHE, Samarathunga L
- PP149 Clinical Utility of Basophil Activation Testing for Drug Hypersensitivity Evaluation in a Resource Limited Setting: A Sri Lankan Cohort Study**
Aberathna IS, Ranasinghe T, Dissanayake M, Chathurangika H, Dissanayake B, Jayamali J, Amarasekara U, Ariyaratna D, Malavige N, Jeewandara C
- PP150 Data-Driven Dengue Forecasting: Machine Learning for High-Burden Districts in Sri Lanka**
 Sandaruwan WWP, Seneviwickrama KLMD, Sampath DMA, Kavindi KHAC

- PP151 Data Quality Assessment of the Electronic Indoor Morbidity and Mortality Reporting (Eimmr) System in a Hospital in Sri Lanka**
Samarawickrama SAH, Hewapathirana R, Dayaratne MKDRB
- PP152 Development and psychometric validation of a questionnaire to assess doctors' perception and practice of artificial intelligence**
 Katulanda P, Dissanayake H, Ponnampereuma G, Hewapathirana R, Madusanka DGIP, Herath HMSM
- PP153 Self-Registration With Barcode Capture of Nic for Outpatient Encounters: Kiosk Design and Operational Outcomes**
Dissanayake SADPC, Rahumath MCR, Hapudeniya M, Jayarathne A
- PP154 District-Wise Trends and Leading Causes of Maternal Mortality in Sri Lanka: a Secondary Data Analysis From 2014–2023**
Gallage RD, Abeykoon WDSE, Athapattu T, Pathirage LPMMK, Abeygunawardena S, Jayathilaka IKMSS
- PP155 Clinician-Led, Ai-Assisted Development of a Surgical Icu Bed-Booking System At a Tertiary Care Hospital**
Rahumath MCR, Dissanayake SADPC, Hapudeniya M, Jayarathne A
- PP156 Knowledge, Attitude, and Practice Towards Stroke Among Patients With Non-Communicable Diseases, Attending Medical Clinics At a Tertiary Care Hospital**
Perera DCH, Perera JKPN, Perera KDS, Perera MDMVH, Perera PKDT, Pathirage MMK
- PP157 Fear of Falling in Parkinson'S Disease: Prevalence, Motor Correlates, and Association With Self-Reported Medication Effectiveness - a Cross-Sectional Study From Two Tertiary Hospitals in Sri Lanka**
Yasoda SGG, Thambavita TMDD
- PP158 Demographic and Clinical Predictors of Presentation Within the Thrombolytic Window Among Stroke Patients At Teaching Hospital Peradeniya: a Retrospective Analysis**
Waidyatilleke SR, Shantha DWA, Wickramasinghe GAMDS, Wickramasingha BKGAA, Bandara TWMTW, Pathirage LPMMK

- PP159 Grading the Severity of the Cases of Chronic Inflammatory Demyelinating Polyradiculoneuropathy Based on the Incat (Inflammatory Neuropathy Cause and Treatment) Disability Score and the Requirement of Multiple Modes of Immunotherapy Within a Year of Onset of the Disease.**
Premarathna ABNN, Fernando A
- PP160 Prevalence and Clinical Characterization of Epilepsy Among Adolescents in Western Sri Lanka: a School-Based Cross-Sectional Study**
 Wanigasinghe J, Arambepola C, Edirisinghe C, Weerasinghe D, Athukorala S, Gooneratne K, Chang T
- PP162 A Digitalized Approach to Event-Based Surveillance: Design and Deployment of a Community-Sourced Health Signal Reporting Portal in Sri Lanka**
Chandrasena H, Liyanage P, Karunapema P, Illangasinghe P, Fernando M, Abeykoon P
- PP163 Long term trends in the government health expenditure in Sri Lanka 2004 to 2024**
Aruppola ALGK, Dharmaratne SD, Sari DK
- PP164 The Effect of Yoga on Metabolic Health of Middle-Aged People: A Systematic Review**
Moonasinghe PM, Chandraratne NK
- PP165 Body image dissatisfaction among school-going adolescents aged 16–19 years in Galle District, Sri Lanka**
Kulathunga PARI, De Silva PV, Wijesinghe CJ
- PP166 Self-medication practices and associated factors among garment factory workers in the Mawathagama free trade zone**
Fawaz HMM, Dushyanth M, Edirisinghe EALW, Ekanayaka MWSS, Atapattu AHKS
- PP167 Respect and Social Inclusion in Age-Friendly Cities: Perceptions and Associated Factors Among Older Persons in Sri Lanka**
Walpita NB, Maduwage S, Prathapan S
- PP168 Prevalence, Associated Factors, and Work-Related Impact of Musculoskeletal Symptoms Among Pottery Workers in a Selected Divisional Secretariat Area in Matara District, Sri Lanka.**
Sewwandi EN, Silva FHDS

- PP169 Prevalence, Associated Factors and the Treatment-Seeking Behaviours for Selected Sexual Health Problems in the First Postpartum Year Among Women in Yatinuwara Medical Officer of Health Area, Kandy District**
Katugaha BHMRH, Rajapaksha DI, Ranasinghe AWIP
- PP170 Knowledge Attitude Practices and Its Associated Factors Related to Fire Safety Among Workers At Sapugaskanda Oil Refinery, Sri Lanka**
Perera UMA, Talagala IA
- PP171 Preference of Adults in Sri Lanka on Breaking the Bad News of a Diagnosed Terminal Illness and Factors Associated**
De Zoysa DTN, Chandrakumar N, Dharmakeerthi HGBG, Rajshankar M, Weerawickrama DR, Prathapan S, Perera N
- PP172 From Scalpel to Sustainability: a Cross-Sectional Study of Environmental Practices Among Doctors in Operating Theatres**
Silvapulle WS, Jayalath NT, Dissanayake DMCHB, Wijekoon WMRS, Kanchana WPL
- PP173 Psychological profile and personality evaluation of altruistic Buddhist monks versus related live donors at a liver transplant centre in Sri Lanka**
Jayasekera SA, Tennakoon K, Tillakaratne B, Herath P, Sathsara K, Baminiwatta A, Wijesinghe C, Fernando M, Siriwardana RC
- PP174 Demographic, Clinical and Biochemical Characteristics of Deceased Donors: a Single Unit Experience**
Joel Arudchelvam, Hansani Hegoda Gedara, Rukshan Siriwardana, Thushan Gooneratne, Rezni Cassim
- PP175 Management of Venous Injuries of the Lower Limb: a Case Series and Review of Current Evidence**
Joel Arudchelvam, Hansani Hegoda Gedara, Rukshan Siriwardana, Thushan Gooneratne, Rezni Cassim
- PP176 Mesenteric Ischemia, a Rare Event Due to Heterogeneous Causes: a Case Series**
Arudchelvam J, Siriwardana R
- PP177 Quasi Experimental Trial for the Effectiveness of An E-Health Intervention Promoting Physical Activity Among Office Workers of Divisional Secretariats in Gampaha District**
Wickramarachchi WATK, Kumarapeli V

- PP178 Determinants of Resectability in Perihilar Cholangiocarcinoma in a Resource-Limited Setting: Occult Metastatic Burden and the Role of Staging Laparoscopy**
Anjalika T, Mahalingam N, Subasinghe D, Senanayake D, Safeer D, Mithushan D, Wijerathne S, Fernandopulle N, Dissanayake V, Sivaganesh S
- PP179 The Histopathological Analysis of 187 Consecutive Thyroidectomy Specimens in a Tertiary Care Hospital: 25 Years Following Salt Iodination**
Narampanawa S, Niyas I, Liyanage VDP, Udupihille J, Galketiya KB, Dharmapala A
- PP180 Solid Pseudopapillary Neoplasms of the Pancreas: a Single-Center Case Series From a Sri Lankan Tertiary Care Hpb Unit**
Anjalika T, Mahalingam N, Fernandopulle N, Dassanayake V, Sivaganesh S, Subasinghe D
- PP181 Animal Bite Incidents and Environmental Health Determinants in the Northern Naval Area, Sri Lanka: a Descriptive Study**
Samarawickrama DI, Dissage S
- PP182 Boosting Movement in Type 2 Diabetes: a Systematic Review and Narrative Synthesis of Physical Activity Interventions in Low- and Middle-Income Countries**
Gunawardhana DP, Talagala IA, Nethmi MWA
- PP183 Bridging Law & Care: Legislative Safeguards Ensuring Maternity Benefits for Sri Lankan Women Workers, Alignment With International Labour Organization Standards**
Gunawardhana DP, Talagala IA, Hettiarachchi CA
- PP184 Developing a Risk Communication Model for Public Health Emergencies in Urban Undersettlements of Colombo**
Obeyesekera NH, Wijesinghe MSD
- PP185 Poor Resilient Coping and Its Associated Factors Among Final Year Engineering Students of University of Peradeniya**
Aruppola ALGK, Gunawardane DA
- PP186 Factors Influencing Knowledge of E-Cigarettes and Associated Attitudes and Practices Among Students in Private Institutions in Colombo District**
Sirimalwaththa STM, Thilakarathne MLYD, Rajeswaran S, Priya YPDD, Gamage KGMBK, Cader M

- PP187 Practices Regarding Urban Heat Islands and Factors Associated With Practices Among the Residents of Wanathamulla Grama Niladari Division**
Karunarathne AGBM, Inara MRF, Karunarathne PJW, Karunarathne KPJP, Jayawardena DMS
- PP188 Factors Influencing Patient Medication Adherence in Medical Clinics of Type A Divisional Hospitals in the RDHS Area, Kalutara**
Peiris WSG, De Silva LSD
- PP189 A descriptive secondary analysis of drought events and their population impact in Sri Lanka from 2010 to 2022**
Waidyatileke SR, Hettiarachchi TH, Dharmaratne SD
- PP190 A Secondary Data Analysis of Flood Events and Their Human and Housing Impact in Sri Lanka From 2010 to 2025**
Waidyatileke SR, Hettiarachchi TH, Dharmaratne SD
- PP191 A Descriptive Secondary Analysis of Landslide Events and Their Human and Housing Impact in Sri Lanka From 2010 to 2024**
Hettiarachchi TH, Waidyatileke SR, Dharmaratne SD
- PP192 Knowledge on Non-Communicable Disease Prevention and Associated Factors Among Estate Adults in a Selected District, Sri Lanka: a Preliminary Analysis**
Wijerathne LRIPK, Kumarasinghe RDKK, Pushpapriya U, Periyasamy N, Seneviwickrama KLMD, Ranasinghe RDS, Goonewardena CSE
- PP193 Antenatal Depression and Anxiety and Its Associated Factors Among Pregnant Mothers in the Colombo Rdhs Area**
Mohideen S, Weliange S, de Silva C
- PP194 Caffeine Usage and Its Association With the Sleep Quality Among Advanced Level Students Attending Private Tuition Classes in Colombo District**
Dilhan WAS
- PP195 Social Influences on Postnatal Health-Related Decision-Making Among Mothers in Colombo District: a Qualitative Study**
Nanayakkara IOKK, Nanayakkara M, Mahanama LPKSM, Liyanage SN, Mahesh PKB, Rathnayake RMDD, Panchali EDM, Weerasinghe DSK

- PP196 Skin Whitening Product Use Among Female Undergraduates At a Selected University in Sri Lanka: Knowledge, Practices, Side Effects, and Associated Factors**
De Silva DGDM, Bhanuka KAR, Hashara RAN, Nanthakumar M, Wijesundara WMSU, Cader M
- PP197 Anthropometric Measurements and Body Composition Indices Among Rural Adults in Kegalle and Ratnapura Districts of Sri Lanka**
Rajakaruna VPC, Wijesinghe CJ, Kaluarchchi M, Chambers J, Kasturiratne A
- PP198 The Smallest Mourners: Characteristics and Proportion of Children Experiencing Parental Bereavement in Infancy in Gampaha District, Sri Lanka**
Poojani Illangasinghe, Palitha Karunapema, Pradeep Wijesinghe
- PP199 Prevalence and Demographic Determinants of Obesity and Central Obesity Among Sri Lankan Adults: a Nationwide Cross-Sectional Study**
Galhena TD, Wickramasinghe NA, Jayawardena R, Devanarayana NM
- PP200 Turning the Tide: Strengthening One Health Systems to Eliminate Rabies in Sri Lanka**
 Liyanapathirana A, Gunatilake AWPI, Ruwanpathirana T, Dabrera T, Chandrasena H, Karunapema P, Tissera H
- PP201 Hearing Loss in Sri Lanka : a Systematic Analysis of National Prevalence and Burden From the Global Burden of Disease Study 2023**
Dharmaratne NS, Godakumbura U, Weerasinghe P, Wickramathilake SS, Wijeratne U, Dharmaratne SD, Alvis I, Manathunga S
- PP202 Association between hypertension and impaired lung function among Sri Lankan adults: a cross-sectional study**
Lekamge MLD, idha MK, Chambers J, Kasturiratne A
- PP203 Development and Evaluation of a Molecular Assay for the Detection of Mybpc3 and Myh7 Pathogenic Variants in Sri Lankan Patients With Hypertrophic Obstructive Cardiomyopathy (Hocm).**
Kesharika KHS, Hettiarachchi D, Wettasinghe TK, Dissanayake VHW
- PP204 Integrated Multidisciplinary Management of Pregnancy-Associated Breast Cancer With Concomitant Cardiac and Renal Involvement: Lessons From a Challenging Case**

Marious WDS, Ranaweera AKP, Rishard MRM, Vidanapathirana MN, Gunasekara HRLD, Latiff SZ, Bandara KMNA, Rathnasekara WADAK, Perera MANAP, Bandara AGGJ, Senevirathne JTN

- PP206 Detection of Selected Disease-Associated Variants in the Shank3 Gene in a Cohort of Sri Lankan Children With Autism Spectrum Disorder.**
Perera DNN, De Silva S, Hewage AS, Fous SL, Abeysuriya V
- PP207 Prevalence of Gckr Rs1260326 and Gckr Rs780094 Variants in Subjects With Non-Alcoholic Steatohepatitis (Nash)-Related Hepatocellular Carcinoma (Hcc) in Sri Lanka**
Hewage AS, Silva SD, Siriwardana RC, Tennekoon KH, Niriella MA, Abeysuriya V, Samarasinghe SASM, Botheju IE
- PP208 The Prevalence and Patterns of Pathogenic Variants of LDLR, APOB, PCSK9 Genes in Patients With Probable Familial Hypercholesterolemia**
Perera K, Amiyangoda G, Karunarathne S
- PP209 Impact of Nutritional and Anthropometric Factors on Testosterone Levels and Semen Quality in Male Infertility: a Single-Center Study From Sri Lanka**
Branavan U, Kumari TWAEN, Jayasundara DMCS
- PP210 An Invisible Toll: Adverse Maternal and Fetal Outcomes in Pregnant Women With Hyperglycaemia in a Low-Middle-Income Country**
Matthias AT, Marious WDS, Ranaweera AKP, Prathapan R, Abeysinghe H, Jayawardane MA, Herath RP, Fernandopulle RC, Fernando A, Silva D, Chamara SR, Prathapan S
- PP211 Prevalence, Feto-Maternal Outcomes and Recurrence of Hypertensive Disorders of Pregnancy in Sri Lanka: a Multicenter Study**
Matthias AT, Marious WDS, Ranaweera AKP, Prathapan R, Abeysinghe H, Jayawardane MA, Herath RP, Fernandopulle RC, Fernando A, Silva D, Chamara SR, Prathapan S
- PP212 Gestational Weight Gain and Associated Factors Among Pregnant Women Admitted to a Selected Hospital in Colombo**
Nijras M, Jayasekara T, Wijayathilaka T, Nair R, Mudalige N
- PP213 Knowledge, Attitudes and Coping Strategies Related to Menstrual Pain and Factors Associated With Usage of Coping Strategies Among Female Athletes in University of Colombo, Sri Lanka.**

Botheju WTN, Bandara NPDV, Bandara AMSS, Bandara PWKB, Dassanayake V,
Bandara D

PP214 Epidemiological Trends and Histological Patterns of Endometrial Cancer in Sri Lanka: a Population-Based Study

Weerasooriya RMBS, Jayakody SL, Alles CNRA, Soysa HNS

PP215 Predictive Accuracy and Clinical Feasibility of AI-Enabled Wearable Multi-Sensor Systems for Early Detection of Adverse Obstetric Outcomes in Low-Resource Settings: a Systematic Review and Meta-Analysis

Abeykoon AMDP, Cooray MST, Fernando WCYA

PP216 Independent Predictors of Neonatal Intensive Care Unit Admission Among Neonates Born to Mothers With Hypertensive Disorders of Pregnancy: a Multivariate Analysis At a Tertiary Hospital in Sri Lanka

Kandauda IC, Ralapanawa U, Wijesinghe AGUN, Tennakoon SUB

PP217 Antibiotic Misuse in Obstetric and Gynaecological Ward

Jayatilleke K, Anuththara RMS, Abeysinghe AMAN, Ravihari NWPCD, Jayasinghe JMPS

PP218 Awareness of Hormone Replacement Therapy Among Female Staff At National Hospital Kandy: a Sub-Analysis of a Gynecological Cancer Screening Survey

Kularathna NK, Sendanayakage SU, Liyanage VDP, Lakshitha KH

PP219 Prevalence, Associated Factors, and Maternal Awareness of Gestational Diabetes Mellitus Among Pregnant Mothers Attending Antenatal Clinics At Teaching Hospital Mahamodara

Jayathilake JHABN, Jayathissa BKNI, Jayaweera JMNH, Jesmine AAFZ, Kadanhena KDNT, Liyanage VDP, Ponnampereuma T

PP220 Knowledge and Practices Regarding Contraceptive Use Among Female Healthcare Workers in Sri Lanka

Jayathilake JHABN, Sendanayakage SU, Lakshitha KH, Kularathna NK, Liyanage VDP

PP221 Prevalence of Gestational Diabetes in the Batticaloa Medical Officer of Health Area: a Comparison Using Current and Proposed Sri Lankan Diagnostic Criteria

Pragasam G, Venkadesappirabu Y, Chulasiri MPPU

- PP222 Molecular Characterization of Selected Mismatch Repair Gene Variants in Sri Lankan Patients With Endometrial Cancer Highly Suggestive of Lynch Syndrome**
Azim S, Abeysuriya V, De Silva S, Piyadigama I
- PP223 Beyond Iron Deficiency: a Comprehensive National Survey of Anaemia Etiology in Sri Lankan Young Adults**
Amarasingha D, Silva R, Perera L, Wickramasinghe N, Piyathunga D, Gooneratne L, Jayatissa R, Dharmabandu S, Chen P, Fucharoen S, Perera S, Premawardhena A
- PP224 Efficacy of Different Regimens of Oral Iron Therapy in the Treatment of Iron Deficiency Anaemia a Randomized Controlled Trial.**
Mettananda KCD, Mallawa R, Fernando PSN, Dissanayake DMS, Kariyawasam T, Premaratna RA, Fernando JSU, Mirihagalla K, Williams S, Wickremasinghe R
- PP225 Effects of Moringa Oleifera Supplementation on Haemoglobin Concentration: a Systematic Review and Meta-Analysis**
Rathnaweera CL, Dayarathna HLP, Yasara N, Premawardhana A, Perera S
- PP226 Prevalence of Hepatitis B and C in Beta-Thalassemia: Systematic Review and Meta-Analysis**
Yasara N, Madiwila N, Rathnapala HC, Thilakarathne S, Premawardhena A, perera S, Mettananda S
- PP227 Epigenetic Regulator Asxl1C.1773C>G(P.Tyr591Ter) and Asxl1C.1282C>T(P.Gln428Ter) Variant Study in a Sri Lankan Cohort of Myeloproliferative Neoplasm Patients**
Manamperi ST, Karunathilake ST, Amarasinghe N, Costa YJ, Goonasekara HWW
- PP228 Unmasking Red Blood Cell Membrane Disorders: Developing a Cost-Effective Diagnostic Algorithm in a Sri Lankan Cohort**
Silva HJRL, Amarasinghe AADS, Gooneratne LV, Williams HSA, Kumar V, Kajal, Jamwal M, Das R, Perera PS, Premawardhena AP
- PP229 Economic Impact of Glycemic Control on Long-Term Diabetes Outcomes in Sri Lanka: a Markov Model Analysis**
Muthukuda DT, Nimansha JSA, Jayawickreme KP, Subasinghe CJ, Herath JIP, Samarasekara TG, Wijeratne T, Gunawardane IKPS, Niriella MA, de Silva T, Adler AI

- PP230 Evaluation of Effectiveness of Existing Government Policies in Supporting Domestic Pharmaceutical Production in Sri Lanka**
Welipitiya WD, Hettihewa LM, Semage SN
- PP231 Global and Country-Wise Laws to Ensure Medication Safety in Patients With Sensory Disabilities: a Scoping Review**
Perera KKNL, Ariyasinghe BD, Rajapakshe RMTN, Weeraratne CL
- PP232 Adaptation and Validation of The Outcome Questionnaire 45.2 to Sinhala for Clinical Use**
Rajapakse R, De Zoysa PT
- PP233 Prevalence of Depression, Anxiety and Stress and Its Associated Factors Among Nursing Officers in a Selected Hospital in Gampaha District**
Karasinghe KADH, Aakash ZM, Bandara HUP, Dissanayake DYM, Jesudasan SV, Jayakody HG
- PP234 Profiling Global Psychiatry and Mental Health Clinical Trials: a Retrospective Analysis (2020-2024) Using Who'S International Clinical Trial Registry Platform (Ictrp) Database**
Ilukkumbura SS, Suraweera CU
- PP235 Nomophobia Among University Students: a Bibliometric Review of a Growing Psychiatric Concern and Future Research Directions**
Banduge RH, Kumarasinghe KHAN, Sewwandi DMP, Mahanama LPKSM
- PP236 Association of Trunk Control and Balance Confidence With Functional Independence of Activities in Daily Living Among Post-Stroke Patients in Selected Government Hospitals in Western Province, Sri Lanka**
Gunathilake SAGR, De Silva LJ
- PP237 Beyond the Clinic: Developing a Mobile-Based Ai-Assisted Feedback System for Home-Based Therapeutic Exercise in Musculoskeletal Telerehabilitation**
Amarasuriya GN, Prabhashana MRM, Jayasinghe JMCNB, Samarasinghe NS, Logeeshan V, Nair SNN, Ranasinghe DC, Somarathne P
- PP238 Development and Face Validation of Mindful Swallowing Training (Mst) Intervention for Post-Stroke Dysphagia**
Jinadasa KTG, Dalpatadu C, Jayasinghe S

- PP239 Evaluating Antinuclear antibody (ANA) patterns among Systemic Lupus Erythematosus (SLE) patients in Sri Lanka**
Witharana HPE, Malavige N, Atukorala I, Ranasinghe T, Ranatunga C
- PP240 Prevalence and Associations of Neuropsychiatric Manifestations of Systemic Lupus Erythematosus in a Sri Lankan Lupus Cohort**
Rathnayake DL, Ratnayake RM, Gallage C, Wadasinghe KM, Lafir R, Ariadurai JN, Atukorala I, Weeratunga PN, Vidanapathirana MN
- PP241 Adverse Pregnancy Outcomes and Associated Factors Among Patients With Systemic Lupus Erythematosus in Sri Lanka**
Ratnayake RM, Rathnayake DL, Gallage C, Wadasinghe KM, Lafir R, Ariyadurai JN, Atukorala I, Weeratunga PN, Vidanapathirana MN
- PP242 Clinical and Immunological Characteristics of Systemic Lupus Erythematosus in Sri Lanka: Insights from a Tertiary Care Cohort**
Gallage C, Wadasinghe KM, Rathnayaka D, Ratnayake R, Ariyadurai JN, Lafir R, Atukorala I, Weeratunga P, Vidanapathirana MN
- PP243 Treatment Patterns and Medication-Related Complications in Systemic Lupus Erythematosus: Data From a Tertiary Care Cohort in Sri Lanka**
Gallage C, Wadasinghe KM, Rathnayaka D, Ratnayake R, Ariyadurai JN, Lafir R, Atukorala I, Weeratunga P, Vidanapathirana MN
- PP244 Living With Diabetes: Mental Health Burden Among Diabetic Patients Followed Up At Secondary and Tertiary Care Institutions in the District of Kalutara**
 Talagala IT, Anuranga MAK, Amarathunge SS, Sumanasekara SAYP, Talagala IA
- PP245 A Markov Model Analysis of Glycemic Control and Progression to Advanced Complications of Type 2 Diabetes in the Sri Lankan Universal Healthcare System**
Muthukuda DT, Nimansha JSA, Jayawickreme KP, Subasinghe CJ, Herath JIP, Samarasekara TG, Wijeratne T, Gunawardane IKPS, Niriella MA, de Silva T, Adler AI
- PP246 Residual Goitre Burden and Thyroid Status Twenty-Five Years After Universal Salt Iodisation in a Previously Endemic Sri Lankan Population**
Liyanage VDP, Niyas I, Narampanawa S, Udupihille J, Galketiya KB, Dharmapala A

- PP247 Maternal Behavioral Risk Factors and Glycemic Status in Pregnancy: a Prospective Cohort Study in Two Tertiary Care Hospitals in Western Sri Lanka.**
 Sasikanth T, Katulanda P, Wickramasinghe WKVK, Fernando DR, Kaluarachchi A, Dodampahala SH, Jayawardena DBIA, Ranaweera AKP, Rishad MRM, Jayasundara C, Piyadigama I, Katulanda GW, Kadotgajan T, Lanerolle S
- PP248 External Migration Intentions Among Medical Officers in Hospitals Under the Regional Director of Health Services (Rdhs) Colombo: Prevalence, Associated Factors, and Policy Implications**
Akmeemana AKDN, De Silva LSD
- PP249 Productivity Losses Dominate the Lifetime Economic Burden of Type 2 Diabetes in Sri Lanka's Universal Healthcare System**
Muthukuda DT, Nimansha JSA, Jayawickreme KP, Subasinghe CJ, Herath JIP, Samarasekara TG, Wijeratne T, Gunawardane IKPS, Niriella MA, de Silva T, Adler AI
- PP250 Perceptions, Barriers, and Facilitators of Well-Women Clinic Attendance Among Women Aged 35 Years and 45 Years in the Beliatta Moh Area; a Mixed Method Study**
Hansini KHC, Athauda LK,
- PP251 Knowledge and Practices of Dementia Care Among Healthcare Assistants and Caregivers At Colombo South Teaching Hospital, Sri Lanka**
 Silva FADS, Madhuwanthi KAH
- PP252 Job Satisfaction and Associated Factors Among Nursing Officers in Secondary and Tertiary Curative Care Institutions in the North Central Province**
Madushan PMJ, Liyanaarachchi LKSR, Maduwantha HDA, Manasha DHL, Madhuwanthi UAK, Manukula KBVAP
- PP253 Is Sri Lanka Using Tobacco Taxation As An Effective Tobacco Control Strategy?**
Abeyratne EHS, Perera NCS, Asantha WAJB, Dineshkumar P, Nilaweera AI, Perera KMN, Rajasuriya MC, Kapoor S
- PP255 Effect of a Mindfulness-Based Quality Improvement Intervention on Quality of Care**
Rajapaksa-Hewageegana Neelamani S, Chandrasena APRS., Withanage DRM, Dissanayaka DMS, Gunawardena Asela

- PP256 Precision Vs. Price: Is Robotic Surgery a Cost-Effective Investment for Sri Lanka's Public Health System?**
Samarakoon MASC, Mallawarachchi KP, Sashikumar T
- PP257 Indoor Fine Particulate Matter Exposure and Maternal Lung Oscillometry: Preliminary Findings From a Multivariable Analysis**
Karunarathne CB, Jayasinghe JMDC, Kariyawasam KHAY, Thilakarathna HMCRK, Priyanga P, Manomi KAN, Madusshica R, Kumarasiri OKDVT, Rishadha F, Kumaranathunga PND, Wijayasinghe WADHM, Chandrasekara CMJC, Dalpathadu KPSY, Fernando LRU, Bowatte G, Madegedara D, Goonewardena CSE, Lin C, Schwarze J, Yasaratne D, Wimalasekera SW
- PP258 Understanding Hereditary Angioedema in Sri Lanka: Diagnostic Gaps, Disease Burden, and Quality of Life Impact**
Amarasekara UPK, Ranasinghe TND, Aberathna AMIS, Ariyaratne MHJD, Chathurangika PH, Jayamali J, Danasekara DRSR Malavige GN, Jeewandara JM KC
- PP260 Proportions and Characteristics of Clinical Trials Related to Behavioral Interventions Registered in International Clinical Trial Registry Platform (Ictrp) Between 2020 to 2024.**
Madhuwanthi MS, Prathapan S, De Abrew A
- PP261 Inflammatory Haematological Ratios for Early Differentiation of Bacterial and Viral Infections in Hospitalised Febrile Patients**
Jayasekera MMPT, Lamabadusuriya DA, Munasinghe JM, Perera DN, De Silva R, De Silva NL, Jayasena H, Nakkawita D, Somaratne I, Silva T, Goonesekera C, Premaratne P, De Silva AD, Abeygoonawardena H, Edirisinghe EMDT, Herath G, Basnayaka BMITS, Wijesinghe RANK
- PP262 Awareness, Utilisation, and Associated Factors of Mobile Health Technologies Among Master of Business Administration (Mba) Readers At the Postgraduate Institute of Management (Pim), University of Sri Jayewardenepura**
Samarakoon ASKNWMRTA, Ravishangar K, Samaranayake OVJT, Samodi APS, Mahanama LPKSM
- PP263 Palliative Care Needs Among Patients With Chf in Western Province, Sri Lanka: a Neglected Area**
Dhanasinghe CN, Arambepola C

- PP264 Availability, Utilization and Barriers of Cardiac Rehabilitation in Sri Lanka: a Nation-Wide Audit**
Abayawickrama V, Samarakoon D, Seneviratne N, Pathirana A
- PP265 Metabolic Syndrome in Young Healthcare Workers: a Hidden Cardiometabolic Risk in a Sri Lankan Tertiary Care Setting**
 Nadeera T, Rasanjula L, Darshana N, De Silva A
- PP266 Clinical Audit of In-Hospital Management of Heart Failure With Reduced Ejection Fraction in a Medical Ward At a Sri Lankan Tertiary Care Centre**
Amanda GH, Gamage AH, Sathischandra DHHL
- PP267 Temporal Attainment of Ldl-C <55 Mg/Dl After Acute Coronary Syndrome: Secondary Analysis of a Randomized Trial of Atorvastatin 40 Mg Versus 80 Mg**
Fernando K, Fernando N, Welhenge C, Dayanath BKTP, De Silva S, Mettananda C
- PP268 Beyond Free Healthcare: Financial Burden After Acute Coronary Syndrome in Sri Lanka**
Ranasinghe J.M.S. Dineshan, Samaranayake Dulani
- PP269 Predictive Performance of Cardiometabolic Indices for Metabolic Syndrome among Adults in Northern Sri Lanka.**
 Raveendran M, Murugathas V, Arasaratnam V, Kumanan T
- PP270 Associations Between Cardiometabolic, Behavioural, and Sociodemographic Risk Factors and Cardiovascular Events Among Adult South Asians: Systematic Review and Meta-Analysis**
Samarathunga T, Dissanayake H, Kasturiratne A, Loh M, Chambers J, Katulanda P
- PP271 The Coping Strategies Among Patients Attending Clinic Follow-Ups After Acute Coronary Syndrome At Secondary and Tertiary-Level Government Hospitals in Kalutara District.**
Ranasinghe D, Samaranayake D
- PP272 Potential Antihypertensive Effects of Passiflora Edulis: a Systematic Review of Preclinical and Clinical Evidence**
 Tharushi Rajapakshe, Pumudu Weerasekara, Vibath Abayawickrama, Priyanga Ranasinghe, Abayawickrama V

- PP273 May Measure Month Sri Lanka 2024: Opportunistic Blood Pressure Screening to Improve Hypertension Awareness and Detection in a Community-Based National Campaign**
Rathnayake N, Mettananda C, Jayaweera Bandara D, Kumanan T, Thangarajah B, Manchanayake M, Jeyapragasam H, Ranasinghe P, Ralapanawa U, Rathnayake N
- PP274 Outcomes of Administrative Action Plan of Antimicrobial Stewardship (As), Intervention Study on Improve Antimicrobial Stewardship (AS), At Navy Hospital, Eastern Command (Nh.Ec.).**
Duminda Indunil Samarawickrama, Mahesika Medavini Manupriya Samarawickrama, Samarawickrama DI
- PP275 Clinical Characteristics and Outcome of Genitourinary Tuberculosis in Sri Lanka: An Observational study**
Jayarajah U, Gunawardene M, Willaraarachchi M, Chandrasiri S, Udayakumaran P, Sosai C, Abeygunasekera A
- PP276 Staphylococcal Contamination of High-Touch Surfaces in a Tertiary Care Hospital in the Central Province**
Perera HCAD, Kudagammana HDWS, Dissanayake R, Liyanapathirana V
- PP277 Inflammatory Haematological Ratios As Predictors of Length of Stay in Hospitalised Febrile Patients**
Jayasekera MMPT, Lamabadusuriya DA, Munasinghe JM, Perera DN, De Silva R, De Silva NL, Jayasena H, Nakkawita D, Somaratne I, Silva T, Goonesekera C, Premaratne P, De Silva AD, Abeygoonawardena H, Edirisinghe EMDT, Herath G, Basnayaka BMITS, Wijesinghe RANK
- PP278 Clinico-Epidemiological Characteristics and Associated Risk Factors Among Confirmed Leptospirosis Patients At Teaching Hospital, Jaffna**
Yanuthy T, Coonghe PAD, Liyanage C, Jayasundara D, Warnasekara J
- PP279 Importance of the Public-Private Partnership in Preventing Re-Establishment of Malaria**
Chulasiri P, Gunaratna I, Gallage S, Ratnayake S, Pragasan G, Jayasinghe S, Fernando D
- PP280 Young Male With Ebv-Related Kikuchi -Fujimoto Disease Presenting With Blue Nails: a Diagnostic Challenge**
Madhusanka RBD, Jayasinghe JADAE, Herath HMSN

- PP281 Parvovirus B19 Viraemia and Associated Clinical Manifestations in Sri Lanka**
Samaraweera B, Madarasinghe NS, Wijayasiriwardhana J, Abeynayake JI
- PP282 Clinico-Epidemiology of Wasp (Vespa Spp.) Stings in Ratnapura**
 Rathnayaka RMMKN, Ranathunga PEAN, Umayangana WU
- PP283 A Descriptive Analysis of Females Attending the Obesity Clinic At UHKDU- an interim analysis**
 Lamabadusuriya D, Abdul Hamid FF, De Silva R, Perera D, Munasinghe J, De Silva N, Waidyarathna GRNN, Kariyawasam V, Solomons T, Vidanagamage G, Jayasekera MMPT
- PP284 What Is a ‘Good Death’ in Sri Lanka?**
Wijeyaratne LA, Ramadasa GU, Jayasinghe S, Spruijt O, Philip J
- PP285 Lived Experiences of Women Diagnosed With Systemic Lupus Erythematosus (Sle): a Qualitative Study in a Tertiary Care Hospital in North Central Province of Sri Lanka**
Wijesinghe WIG, Wickramasooriya RDGSS, Wijayakoon WMHG, Wijekoon WMAG, Wijerathna KTJM, Wijesinghe AAD, Paththinige CS
- PP286 Achievement of Guideline Directed Glycemic, Lipid, and Blood Pressure Targets in Type 2 Diabetes Mellitus Patients Attending a Tertiary Care Centre in Sri Lanka**
Gamage AH, Chandrasekaran M, Sumaiya LF, Sumanatilleke M
- PP287 Epidemiological and Clinical Features of Kaneru (Yellow Oleander - Thevetia Peruviana) Poisoning in Ratnapura**
Rathnayaka RMMKN, Ranathunga PEAN
- PP288 Non-Specific Trained Immunity Effects of BCG Vaccination Beyond Tuberculosis: Scoping Review**
Jayasingh SS, Jayasekara LASP, Gamage MGTS, Jayantha AB, Haris MHFR , Abeysuriya V
- PP289 Evaluation of Iron Deficiency Screening and Evidence-Based Management in Heart Failure Patients: a Clinical Study At a Tertiary Care Hospital in Sri Lanka**
 Kirushanth C, Silva FHDS, Jayasundera YMVRB, Pamunuwa NT

- PP290 A Study on Demographic and Patient Characteristics, Aetiology, Treatment and Prognosis Among Hospitalised Patients With Pyelonephritis in Sri Lanka**
Manilgama SR, Jayasinghe K, Narangoda E, Fonseka CL, Gunasekara HRP, Hettiarachchi NM, Mayurathan P, Premawardana N, Jegathesan N, Kumarihamy P, Perera N, Handagala DMNR, Hewage ND, Wellappuli WADY
- PP291 Patient Profile and Clinical Outcome of Patients Admitted With Non-St-Elevation Myocardial Infarction; a Multicentre Registry Study From Sri Lanka**
Manilgama SR, Jayasinghe K, Hettiarachchi NM, Ralapanawa U, Gunasekara HRP, Nugara VA, De Zoysa W, Matthias AT, Mettananda C, Jayasundara AJMK, Jegathesan N, Premawardana N, Seneviratne MP, Veerasuthen T, Bandusiri RP, Mayurathan P, Lekamwasam S
- PP292 Admission Clinical and Laboratory Predictors of Persistent Chikungunya Arthropathy At Three Months: a Sri Lankan Hospitalised Cohort**
Kothalawala KGD, Perera MHMTS, Narangoda E, Wimalasundera AR, Perera HNT, Muthugala MARV, Wettasinghe I, Jayathilake AVCH, Liyanage NM, Mapalagamage M, Lokunarangoda NC, Tissera H, Wijewickrama A, Idampitiya D
- PP293 Vaccine Hesitancy: a Phenomenological Study Among Public Health Midwives in Colombo District**
Gunasekera KM, Ranasinghe RDS, Malawaraarachchi BP, Welgama WDP, Prabodhya CDG, Thilakasiri WUO, Dharmakeerthi BDTR, Nethmini WGU, Jayasundara JPSC, Jayasinghe JAYB, Lakshika SLA, Makeswaran V, Seneviwickrama KLMD
- PP294 An Overview of the Diagnosis and Management of Paediatric Urinary Tract Infections: a Descriptive Observational Study From a Teaching Hospital, Colombo, Sri Lanka**
Boralugoda VC, Eumini SKDK, Rodrigo SS, Mettananda DSG, Gunaratna GPS, Badanasinghe CN
- PP295 Assessment of Redundant Antibiotic Coverage in Selected Medical and Surgical Wards of Colombo South Teaching Hospital of Sri Lanka**
Imalkith SAMA, Nilanka Perera
- PP296 Novel Measles Genotype in Sri Lanka**
Gunaratne MDPH, Gankanda P, Kalpanee JK, Liyanapathirana A, Samaraweera B, Abeynayake JI

- PP297 Challenges in Treating Carbapenem-Resistant Infections in Sri Lanka: a Qualitative Study of Physician and Microbiologist Experiences**
Wickramasinghe S, Abusalem L, Cutshaw M, Weerasinghe S, Nagahawatte A, Bodinayake C, Fonseka L, Kurukulasooriya R, Woods C, Corneli A, Tillekeratne G
- PP298 Self-Breast Examination Practice Among Female Healthcare Workers At Teaching Hospital Kandy: a Sub-Analysis of a Gynecological Cancer Screening Survey**
Lakshitha KH, Sendanayakage SU, Kularathna NK, Liyanage VDP
- PP299 Exploring Preliminary Tyrosinase and Cholinesterase Inhibitory Activities of Essential Oils from *Myristica fragrans* Houtt. Extracted through Hydrodistillation and Solvent-Free Microwave Extraction**
Agalawatte ASMSSB, Liyanaarachchi GD
- PP300 Awareness of Self-Titration of Insulin, Practices, and Usage of Glucometers Among Patients With Type 2 Diabetes Mellitus Attending National Hospital Galle.**
 Abeyaratne DDK, Weeranyake HSS, Thabrew I, Wijewickrama C, Weerakkody M, Wijenayaka WW, De Silva OPKY, Wickramasinghe BVJ, De Silva DHH, Pathayala PRCS, Wijenayaka PA, Fonseka CL
- PP301 Quality of Life and Its Determinants Among Type 2 Diabetic Patients Followed Up At Secondary and Tertiary Care Institutions in Kalutara, Sri Lanka**
 Talagala IT, Anuranga MAK, Amarathunge SS, Sumanasekara SAYP, Talagala IA
- PP302 Comparison of Friedewald and Sampson Equations for Estimation of Ldl-Cholesterol Against Direct Measurement in a Sri Lankan Clinical Laboratory Population: a Pilot Analytical Study**
 Abeyesuriya V, Chandrasena LG, Lakshan MTD, De Mel VTK
- PP303 Prevalence and Determinants of Poor Sleep Quality in Adults With Diabetes Mellitus: a Hospital-Based Study in Colombo**
Ariyaratne PBL, Shavindhi M, Hapuarachchi CL, Jasveena A, Wickramasinghe WKSD, Dheerasinghe DSAF
- PP304 Can Glycated Albumin and Fructosamine Replace Hba1C When It Fails? a Systematic Review and Meta-Analysis of Diagnostic Accuracy**
 Fernando K, Kottahachchi DC, Dayarathna LP, Rathnaweera C, Dayanath BKTP, Perera S, Premawardhana A

- PP305 Association of Age, Body Mass Index, and Family History With Glycemic Status in Pregnancy: a Prospective Cohort Study in Two Tertiary Care Hospitals in Western Sri Lanka.**
Sasikanth T, Katulanda P, Wickramasinghe WKVK, Fernando DR, Kaluarachchi A, Dodampahala SH, Jayawardena DBIA, Ranaweera AKP, Rishard MRM, Jayasundara C, Piyadigama I, Katulanda GW, Kadotgajan T, Lanerolle S
- PP306 Left Ventricular Diastolic Dysfunction Among Patients With Type 2 Diabetes Mellitus and Its Association With Cardiac Autonomic Control: Preliminary Findings**
Wijesooriya N, Kottahachchi D, Rajapaksha S, Subasinghe C, Santha Chandra D, Badanasinghe N, Wickramasinghe R, Warnakulasuriya T
- PP307 Association of Physical Activity and Other Risk Factors With Diabetic Peripheral Neuropathy Among Sri Lankan Adults With Type 2 Diabetes Mellitus**
Kumarihamy P, Mallikaarachchi V, Karunathilake P, Medagama A, Dalugama D, Aluwihare WBWMRAB, Dissanayake DMDIB, Gunarathne WMSN
- PP308 A Descriptive Cross-Sectional Study on Glycaemic Status of Patients Undergoing Elective Surgeries At National Hospital, Kandy**
D. Jegavanthan, G Amiyangoda, Hiru Navod Kalansuriya ,N. Waidyalankara, Tharindi Lokumarambage ,Minhas Thamien, Mohomed Haaris, Antonypillai CN, Vithana A
- PP309 Who Gets Screened? Patterns and Predictors of Chronic Kidney Disease Screening in Sri Lanka – a Multicenter Study**
Karunatilake TD, Bandara KMSP, Palliyaguru SN, Wijerathna KMC, Abeysekera RA
- PP310 Level of Awareness, Treatment Adherence and Associated Factors among patients undergoing Hemodialysis in Selected Hospitals in the Colombo District, Sri Lanka.**
Dilhara MHYT, Rathnayaka RMCD, Ruwanthika PGN, Jayasinghe JPWMS, Jayasekara JMEGMD, Weerawardhana SDPL
- PP311 Clinical Characteristics of Systemic Lupus Erythematosus in Patients With and Without Lupus Nephritis: a Comparative Study From a Sri Lankan Cohort**
Wadasinghe KM, Gallage C, Rathnayake D, Ratnayake RM, Lafir R, Ariadurai JN, Atukorala I, Weeratunga P, Wijayarathne D, Wijewickrama E, Nvidanapathirana M

- PP313 Reference Values for Cardiorespiratory Fitness Measured With Cardiopulmonary Exercise Testing in Healthy Sri Lankan Adults: a Preliminary Study**
 Liyanage JW, Gunasinghe D, Perera CJ, Harini SAT, Abaydeera A, Gunasena D, Malavige N, Ranasinghe DC
- PP314 Analytical Method Development for Identify Undeclared Prednisolone in Joint Care Supplements.**
Rashani SAN*, Jayasooriya JAHK, Fernando PNJ, Silva APD
- PP315 Pharmacokinetic-pharmacodynamic evaluation of caffeine from espresso-based beverages and its relationship with psychomotor vigilance in university athletes-A pilot study**
Dahanayake D¹, Deeyamulla MP¹, Thisera BANK¹, Rashani SAN²
- PP316 Characteristics and associated factors of sports injuries among the patients attending the sports medicine clinic at National Hospital Galle**
Biseka AGDS, Basry MMMH , Chandrasiri UHPV , Chanuka HPP , Chathurangani MM ,De Silva PV
- PP317 Salivary Caffeine Pharmacokinetics and Psychomotor Performance Following Consumption of Standardised Espresso-Based Coffee Beverage in University-Level Athletes: a Randomized Crossover Study Using Lc-Ms/Ms**
Thisera BANK, Deeyamulla MP, Dahanayake D, Rashani SAN
- PP318 Insulin-Dextrose Infusion in Acute Management of Severe Hypertriglyceridemia: Case Series**
Sumaiya LF, Gamage AH, Chandrasekaran M, Sumanatilleke M
- PP319 Audit on Adherence to Guideline-Recommended Ultrasound and Fnac Follow-Up for Thyroid Nodules in a Tertiary Care Centre**
Sumaiya LF, Gamage AH, Chandrasekaran M, Sumanatilleke M
- PP320 Evaluation of Hepatic Vein Anatomical Variations Using Computed Tomographic Imaging in a Tertiary Care Hospital**
 Arudchelvam J, Kumari JMMD
- PP321 Confidence in Managing Pediatric Emergencies Among Emergency Department Doctors in Sri Lanka: a Multicentered Cross-Sectional Study**
Weerakkody WAKM, Weeratunga D

- PP322 Post-Exposure Management Following Occupational Blood and Body Fluid Exposure; Knowledge, Attitudes and Practices Among Nurses Working in Selected Medical and Surgical Wards At NhsL, Colombo.**
Rodrigo BKJS, Rathnayake RMSN, Rathnayake SM, Sivamsan S, Lucas MN
- PP323 Knowledge Without Action: Dengue Prevention Gaps Among Febrile Patients in Colombo**
Kodikara M, Guruge S, Karalliyadda M, Warnasooriya P, Keerthikan K, Mahesh B
- PP325 Isolation, Identification, and Antimicrobial Susceptibility Patterns of Salmonella and Campylobacter in Poultry, Pig and Dairy Cattle in the Gampaha District, Sri Lanka: a Pilot Study**
Dhilrukshi AML, Badanasinghe CN, Muthugala R, A Abd EI Wahed, Gunarathna GPS
- PP326 The Hidden Cardiac Burden of Dengue – Case Series**
Yatapana NA, Subasinghe SASP, Pathirana JPDM
- PP327 Clinical Audit on Implementation of the Vap Bundle to Reduce Ventilator Associated Pneumonia.**
 Herath HMNK, Jayarathna RKC, Perera MHMTS, Herath NK
- PP328 An Emerging Epidemic of Infective Endocarditis: a Cross-Sectional Study At Teaching Hospital Peradeniya**
Waidyatilleke SR, Shantha DWA, Gallage RD, Jayathilaka IKMSS, Dalugama DPCL, Pathirage LPMMK
- PP329 Research Study to Explore the Challenges Faced By Healthcare Staff in Managing Agitated Patients Who Present to the Emergency Department (Ed)**
Deshani EM, Rathnayake RMNN, Mahendrarajah S
- PP330 Gaps in Doctor-Patient and Nurse-Patient Interactions and Challenges to Effective Healthcare Communication in Emergency Care Unit At Selected Tertiary Care Setting; Sri Lanka**
Prashanth G, Sanjeewa SKAD
- PP331 Factors Influencing the Accessibility of Patients Receiving Emergency Care Services At a Tertiary Care Hospital in Sri Lanka.**
Edirisinghe TC, De Silva LSD

- PP332 Local Effects of Envenoming in a Cohort of Snakebite Patients From Anuradhapura, Sri Lanka**
Shuja MIM, Waiddyanatha S, Chathuranga U, Siribaddana S, Silva A
- PP333 The Effectiveness of the Basic Life Support (Bls) Workshop for the General Public in the Kamburupitiya Region.**
 Danushka PGN, Biseka AGDS, Madalagama CS, Jayasinghe R
- PP334 Patterns of motorcycle accidents: circumstances, injuries, and outcomes at the National Hospital of Sri Lanka**
Ranaweera AD, Ranathunga RMASN, Jegaruban V, Wanigasekara S, Pattiya Arachchi A, Arachchi SNP, De Silva LSD
- PP335 Association of Diabetes Mellitus With Clinical and Laboratory Characteristics in Culture-Positive Melioidosis: a Decade-Long Analysis**
Piyasiri DLB, Jayasekera PK, Corea EM
- PP336 Investigation of a Measles Outbreak in a Country With High Vaccination Coverage 2023-2024**
Fernando MAY, Samaraweera B, Chathuranga GP, Abeynayake JI
- PP337 Comparative Quantification of Cannabinol (Cbn) in Purified and Non-Purified Cannabis Sativa L. (Vijaya) Leaves Grown in Sri Lanka**
Thaksila KLAS, Nawarathne TK, Paranagama PA, Manoraj A, Gunaratna TANR
- PP338 Three-Dimensional Morphometric Characteristics of Hepatocellular Carcinoma and Their Implications for Image-Guided Thermal Ablation**
 Sathsara K, Premaratne BE, Appuhamy C, Tennakoon K, Siriwardana RC
- PP339 Respiratory symptoms, lung function and associated factors of construction workers at selected construction sites in the Colombo district**
Hewage D, Hewa RRR, Hettiarachchi HKNN, Idirisinghe IMNH, Amarasiri WADL, Senanayake NP
- PP340 Group Differences in Grit, Growth Mindset, and Academic Self-Efficacy Among Undergraduate Nursing Students At a Defence University in Sri Lanka**
Weerathunga WRU, Dharmadasa PKDTN, Gunathilaka AGRR, Yogendra L, Jayathilaka KDCD, Sudusinghe WS, Gamage CKW

- PP341 Perceptions on the Conduct of Anatomy Tutorials and Their Outcomes Among Medical Undergraduates**
Weerasekara WGVG, Kosgallana WE, Jayarathna MJS, Sathsara WGDS, Subasinghe SADDISY, Fernando DMPS, Adikari SB, Amaratunga HA
- PP342 Knowledge and Attitudes Toward Deceased Donor Organ Transplantation Among Junior Doctors in Sri Lanka**
 Joel Arudchelvam, Hansani Hegoda Gedara, Rukshan Siriwardana, Thushan Gooneratne, Rezni Cassim
- PP343 Career Outcomes and Professional Pathways of Medical Graduates: a Case Study From South Asia**
Muhunthan K, Liyanage CK, Wanninayake L, Gunasekara JAI, Yasawardene P, Perera T, Wickramasinghe WAG, Ranasinghe P
- PP344 Beyond Pink; Exploring Awareness of Breast Carcinoma and Self-Breast Examination Among Female Nurses in the Government Sector, A Multicentered Study.**
Weranja T.G.K, Praneev G , Siriwardena D.I.A
- PP345 Development and Validation of the Sri Lanka Simulation-Based Nursing Learning Questionnaire (Sri-Sim Nlq)**
De Zoysa MJOS, Hashini GKAI, Wijesinghe NU, Hemachandra PGDKD, Herath HMP, Samanmali MBC, Gamage CKW
- PP346 Attitude Towards Interprofessional Learning During Pre-Clinical Phase Among Medical and Dental Undergraduates in a Selected State University in Sri Lanka**
Dhammeearatchi K, Prabhashani GSC, Yasawardene SG
- PP347 Are Future Healthcare Professionals Prepared for Artificial Intelligence-Driven Health Services? a Cross-Sectional Study Among Allied Health Sciences Undergraduates in State Universities in Sri Lanka**
 Perera PSI, Chamodya THG, Marasinghe MMAI, Weerasekara WBMR, Napogoda MT, Perera SI
- PP348 The Choice of Studying Medicine: A Survey on the Influencing Factors and Self-Satisfaction Among Medical Students in Sri Lanka**
 Silva NKA, Ramanayake RMTK, Ramayasiri BKN, Ranasinghe IPMN, Ranathunga GM, Ranasinghe RAUN, Rajapaksha RGVKK

- PP349 Determinants of Lecture Attendance in Undergraduate Medical Education: Perceptions of Students and Lecturers At the Faculty of Medicine, University of Ruhuna**
Egodage UK, Wijewickrama C, Weeranayake HSS, Thabrew I, Senanayake SAMAVR, Thilakarathne S, Wijenayaka PA, Pathayala PRCS, Gunawardana S
- PP350 Readiness and Perceptions Regarding Interprofessional Education Among Health Professions Students**
Sivapalan S, De Abrew A, Edirisinghe S
- PP351 Perspectives of University Lecturers on Use of Artificial Intelligence (AI) in Medical Education: An Explorative Study At Faculty of Medicine, University of Kelaniya**
Warnasooriya AN, Deduwela RS
- PP352 Career Regret Among Medical Students in the Faculty of Medicine, University of Ruhuna.**
Biseka AGDS, Danushka PGN, Jayasinghe R
- PP353 Development of An AI-Powered, Textbook-Referenced Medical Mcq Platform for Final Mbbs Preparation**
Aarewatte IC, Aarewatte LKHDD
- PP354 Evaluation of Anatomy Essay Questions in Mbbs and Bds Curricula Cognitive Demand and Potential for Objective Structured Assessments**
Dissanayake JK, Abeysinghe AMMEK, Kiringoda KGKC, Gunawardhana HGM, Fernando RSR, Senanayaka BPD, Jayawardena JACK, Dasun GMT, Wickremasinghe WAMS, Gunathunga ND, Ekanayake EMCU, Udugama UWAS
- PP355 Medication Knowledge and Adherence Among Liver Transplant Recipients and Caregivers of Pediatric Recipients and a Pilot Comparison With Sri Lankan Patients**
Rathanayaka RMSL, Tennakoon KM, Samaranayake NR, Siriwardana RC
- PP356 District-Wise Trends and Leading Causes of Maternal Mortality in Sri Lanka: A Secondary Data Analysis from 2014–2023**
Gallage RD, Abeykoon WDSE, Athapattu T, Jayathilaka IKMSS, Pathirage LPMMK, Abeygunawardena S

- PP357 Heavy Metal Analysis of Lipsticks in the Sri Lankan Market Using Atomic Absorption Spectroscopy**
Wijerathne UHMA, Kathiarachchi SG, Kadigamuwa C
- PP358 Quality of Life in Atypical Parkinsonian Disorders: Preliminary Results from a Multicentre Cross-Sectional Study in Sri Lanka (GP2 Collaboration)**
Velummylum V, Pathirage AI, Ruwanpathirana PS, Senanayake BSN
- PP359 Clinical Characterization and Functional Correlates of Multiple System Atrophy in Sri Lanka: Preliminary Results from a Cross-Sectional Collaborative Study**
Pathirage AI, Velummylum V, Ruwanpathirana PS, Senanayake BSN
- PP360 Bone mineral density in patients presenting with low-impact fractures to a tertiary care center in northern Sri Lanka: a pilot study highlighting the need for earlier osteoporosis screening in women**
Gobyshanger T, Arulmoli A, Aravinthan M
- PP361 Tuberculosis Mortality Reporting in Sri Lanka: Discrepancies Between National Data Sources and WHO Estimates**
Nandasena S, Kolonne E, Dissanayake N, Cader M, Gamage S

Knowledge And Perception Of Public Health Midwives On Implementation Of Mothers' Support Groups In Colombo District

Ushavarththani S¹, Tharanga Navodani KA²

¹Post Graduate Institute of Medicine, University of Colombo, ²National Institute of Health Sciences, Kalutara.

Introduction and Objectives: Mothers' Support Groups (MSGs) empower communities to achieve better health outcomes through PHMs, as they are grassroots-level implementers. This study aimed to describe knowledge and perception of Public Health Midwives (PHMs) on implementing MSGs in Colombo District.

Methodology: This descriptive cross-sectional study was conducted among 422 PHMs in the Colombo District. A proportionate stratified random sampling method was applied to select the participants. Data were collected using validated self-administered questionnaires designed by the principal investigator. A scoring system was developed to assess the level of knowledge and perception.

Results: For knowledge ≥ 80 marks taken as cut off for good and bad knowledge. For perception a cutoff value was considered as ≥ 75 for good and bad perception. Overall response rate was (n=398, 96.3%) Among these (n=251, 63.1%) of participants exhibited good knowledge, with score ≥ 80 . Less than half (n=154, 38.7%) of participants with a negative perception whereas (n=244, 61.3%) of those with a positive perception with the score ≥ 75 . Resource constraints and lack of interest from communities were notable barriers to effective implementation from PHMs.

Conclusion and recommendation: Most members were knowledgeable and positive about MSG. PHMs should get regular, targeted training on practical implementation skills to strengthen MSG. Constant monitoring, supportive supervisions and guidance are needed to turn knowledge and perception into action. This emphasizes the need for targeted interventions to support both younger and older PHMs, ensuring consistency in implementation and practices.

Transition patterns of depressive symptoms among mothers from the third trimester of pregnancy to one-month postpartum in two health unit areas in Galle

De Silva BVS¹, Ponnampereuma TT¹, Punchihewa GD², Kumari UDCS³, Devanmini S.D.LV³, Dharmakeerthi W.D⁴, Wijesinghe CJ¹, De Silva PV¹

¹*Department of Community Medicine, Faculty of Medicine, University of Ruhuna*

²*Department of Psychiatry, Faculty of Medicine, University of Ruhuna*

³*National Hospital, Galle*

⁴*Faculty of Medicine, University of Peradeniya*

Background: The typologies of depression are heterogeneous among different cultural settings, with mothers developing Antepartum Depression (APD), sustaining into the postpartum period, and depression-free mothers during pregnancy developing rapid symptoms in the postpartum period.

Objectives: To assess the transition pattern of depressive symptoms among mothers from the third trimester of pregnancy to one-month postpartum attending Maternal and Child Health (MCH) clinics in two Medical Officer of Health (MOH) areas in Galle district.

Methods: A cross-sectional study was conducted among 450 mothers from the third trimester of pregnancy to one-month postpartum, attending MCH clinics in Bope-Poddala and Galle MOH areas. Participants were recruited using multi-stage cluster sampling. Depressive symptoms were screened with the Edinburgh Postnatal Depression Scale (EPDS).

Results: Symptoms of APD were present among 12.2%, and symptoms of Postpartum Depression (PPD) among 11.2%, of whom 82.6% had new onset depressive symptoms and 8.6% had persistent symptoms. In 76.3% mothers with APD, the symptoms had resolved by one month postpartum. Approximately 47% of the mothers demonstrated a decrease in EPDS scores, 39.8% showed an increase, and 12.8% had no change between the two time points. The median EPDS score showed a statistically significant change from the third trimester to one-month postpartum ($p=0.017$), indicating an overall reduction in symptom scores following delivery.

Conclusion: Depressive symptoms were higher during pregnancy, with an overall reduction by one month postpartum. However, a considerable proportion reported an increase in symptoms. It is recommended to initiate screening for depressive symptoms during pregnancy and to continue during postpartum.

Musculoskeletal Symptoms and Associated Occupational Factors among Hairdressers, Beauticians, and Related Workers in the Colombo Municipal Council Area, Sri Lanka

Lamis QR¹, Lankaarachchi HG¹, Lakshini KA¹, Kuruppu KATS¹, Sivashangar A²

¹*Faculty of Medicine, University of Colombo, Sri Lanka*

²*Department of Pathology, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives: Musculoskeletal disorders are commonly experienced by hairdressers, beauticians and related workers due to prolonged standing, repetitive movements and awkward postures. Despite abundant international evidence, Sri Lankan data remain limited. Our study aimed to assess musculoskeletal symptoms and associated occupational factors among this workforce.

Methods: A descriptive cross-sectional study was conducted among 174 workers. A list of 337 salons in the Colombo Municipal Council (CMC) area was generated using Google Maps, and salons were randomly selected using Microsoft Excel. Data were collected using a structured interviewer-administered questionnaire adapted from the Nordic Musculoskeletal Questionnaire, supplemented with questions developed from a literature review. Data were analyzed using SPSS version 25. Chi-square tests were used to assess associations.

Results: The percentage of participants who reported musculoskeletal symptoms within the past 12 months was 74.1% (n=129). The most commonly affected sites were the shoulders (46.6%), followed by the lower back (39.1%). Shoulder pain was the most frequent symptom limiting daily activities (19.0%), followed by neck pain (17.8%). Significant associations were found between neck pain and duration of neck bending per customer ($p=0.017$); shoulder pain and both frequency ($p=0.007$) and duration ($p=0.005$) of neck bending; upper ($p=0.032$) and lower ($p=0.023$) back pain and frequency of back bending; and hip/thigh pain and frequency of back bending ($p<0.001$).

Conclusions: Musculoskeletal problems are common in this population, consistent with international findings. Several ergonomic factors were significantly associated with musculoskeletal symptoms. Measures to improve workplace ergonomics and minimize neck and back bending during salon procedures are warranted.

Availability and Accessibility of Electronic Cigarettes and Smokeless Tobacco Products in Colombo City

Asantha WAJB¹, Dineshkumar P¹, Nilaweera AI^{1,2,3}, Perera NCS¹, Abeyratne EHS¹, Perera KMN^{1,4}, Rajasuriya MC^{1,5}, Shivam Kapoor⁶

¹*Center for Combating Tobacco*

²*Postgraduate Institute of Medicine, University of Colombo*

³*Department of Allied Health Sciences, Faculty of Medicine, University of Colombo*

⁴*Department of Public Health, Faculty of Medicine, University of Kelaniya*

⁵*Riverland General Hospital, Berri SA, Australia*

⁶*STOP, Vital Strategies*

Introduction and Objectives: Under the Prohibited Tobacco Products Regulations (2016) of the National Authority on Tobacco and Alcohol (NATA) Act, smokeless tobacco products, flavoured or sweetened tobacco, and electronic cigarettes (e-cigarettes) containing tobacco are banned from manufacture, import, and sale in Sri Lanka. Despite this, such products remain available, highlighting gaps in enforcement. This study aimed to assess the availability and accessibility of e-cigarettes and smokeless tobacco products in Colombo Municipal Council (CMC) areas.

Methods: A mixed-method study combining cross-sectional and participatory observational study designs was conducted covering retail stores within 100m radius of purposively selected 245 key public places (central train and bus stations, schools, religious places) across the 15 CMC areas. Trained data collectors using mystery shopper methodology, inquired from shops about the availability of e-cigarettes, smokeless, flavoured and sweetened tobacco products. Available samples were purposively selected and purchased to assess the accessibility. Observations were documented on onsite promotions and industry tactics to evade current regulations.

Results: A total of 72.23km distance was covered in the survey. Of 1067 shops visited, six sold e-cigarettes (0.56%). Smokeless tobacco products (commonly in the form of betel quid) were widely available (n=170, 15.9%). Six shops (0.56%) sold tobacco-scented perfumes. All the shops selling Smokeless tobacco products and tobacco-scented perfumes (n=176, 16.5%) had point-of-sale promotions.

Conclusions: E-cigarettes and smokeless tobacco products remain accessible within CMC areas alongside widespread point-of-sale promotions and tobacco industry interference. Retail licencing, strengthening enforcement of current laws and monitoring mechanisms are essential to protect public health.

Manipulating Science to Influence Tobacco Taxation in Sri Lanka

Perera NCS¹, Abeyratne EHS¹, Asantha WAJB¹, Dineshkumar P¹, Nilaweera AI^{1,2,3}, Perera KMN^{1,4}, Rajasuriya MC^{1,5}, Kapoor S⁶

¹Centre for Combating Tobacco, Faculty of Medicine, University of Colombo

²Postgraduate Institute of Medicine, University of Colombo

³Department of Allied Health Sciences, Faculty of Medicine, University of Colombo

⁴Department of Public Health, Faculty of Medicine, University of Kelaniya

⁵Riverland Mallee Coorong Local Health Network, Riverland General Hospital, Berri SA, Australia

⁶STOP, Vital Strategies

Background: Tobacco taxation is the single-most potent, cost-effective strategy to reduce tobacco use. Global evidence suggests that tobacco industry (TI) uses a range of tactics, including sponsoring research and manipulating evidence, to interfere in tax measures.

Objective: To explore TI interference in manipulating scientific evidence to undermine effective tobacco taxation in Sri Lanka, and its potential implications.

Methods: Investigative research methods were used to identify information sources. A desk review and content analysis of photographs, media reports, official websites, and TI publications was conducted. Data was thematically analysed to identify patterns of potential TI interference and implications.

Results: Eight publications supporting industry narratives against tobacco taxation were identified; seven published by a research and consultancy firm, one-a group of academics. Common tactics identified included misinformation, misinterpretation of evidence, unsupported statements, inadequately described, non-scientific, industry research-based methodology and undisclosed funders.

Statements supporting TI narratives included: increased illicit trade and beedi consumption, reduced government tax revenue and loss of employment.

Three publications were released just before the annual budget speeches in 2019 and in 2022.

Reports were launched ceremoniously, presenting to the Ministers of Finance and senior officials in the departments of Customs and Excise and propagated widely using national media platforms.

Conclusion: Findings suggest manipulation of research and strategic use of policy moments are present against effective tobacco taxation in Sri Lanka. Strengthening implementation of WHO FCTC Article 5.3, and introducing codes of conduct for public officials and improving knowledge of media personnel are necessary to safeguard tobacco taxation policies.

Regional Variation in Pharyngeal Cancer Distribution in Sri Lanka: A Population-Based Analysis of Anatomical Subsites, 2015–2022

A Atchuthan¹

¹*National Cancer Institute, Apeksha Hospital, Maharagama, Sri Lanka.*

Background: Pharyngeal cancers comprise anatomically distinct malignancies with differing biological behaviour, prognosis, and risk factors. Although geographical variation in pharyngeal cancer distribution has been described, comprehensive subsite analyses from South Asia remain limited. This study evaluated the regional distribution of pharyngeal cancers in Sri Lanka using national cancer registry data and explored anatomical patterns that may inform future etiological research.

Methods: A retrospective population-based study was conducted using the Sri Lanka National Cancer Registry (2015–2022). All pharyngeal cancers (ICD-10 C09–C14) were identified. Tumours were grouped into the nasopharynx (C11), oropharynx (C09–C10), and hypopharynx (C12–C13). Cases classified as pharynx not otherwise specified and overlapping lesions were excluded to improve anatomical specificity. Regional distribution, sex-specific burden, and temporal trends were analysed descriptively.

Results: A total of 6,650 anatomically classified pharyngeal cancers were analysed. Oropharyngeal cancers accounted for 49.3% of cases, followed by hypopharyngeal cancers (44.9%) and nasopharyngeal cancers (5.8%). Oropharyngeal cancers demonstrated marked male predominance (male:female ratio 8.7:1), whereas hypopharyngeal cancers showed a lower male predominance (4.8:1) and consistently contributed a greater proportion of female pharyngeal cancers throughout the study period. Nasopharyngeal cancers remained the least frequent anatomical region with relatively stable numbers across all years. The regional distribution remained remarkably consistent from 2015 to 2022, suggesting stable epidemiological patterns despite annual fluctuations in case numbers.

Conclusions: Sri Lanka demonstrates a distinctive distribution of pharyngeal cancers characterised by a substantial burden of hypopharyngeal malignancies and persistent sex-specific differences compared with the oropharynx. These findings differ from the HPV-driven predominance of oropharyngeal cancers reported in many Western populations and suggest that regional environmental exposures and anatomical factors may contribute to differences in tumour localisation. Further analytical and molecular studies are warranted to investigate the mechanisms underlying these geographical variations.

Occupational Exposure to Needle Stick Injuries among Healthcare Workers in Teaching Hospital Batticaloa

Mayuran N¹, Sasikumar T¹, Suhagin S E², Vijayakanth P², Krishnatharshini P²

¹*Ministry of Health*

²*Teaching Hospital Batticaloa*

Introduction and Objectives: Healthcare workers (HCWs) are frequently exposed to occupational hazards during patient care, particularly through needle stick, and sharp injuries. These exposures pose a risk of transmission of blood-borne infections such as hepatitis-B, hepatitis-C, and human immunodeficiency virus. Despite infection prevention control (IPC) programmes, such incidents continue to occur in healthcare settings. This study aimed to analyse occupational exposure to needle stick injuries among healthcare workers in Teaching Hospital Batticaloa.

Methodology: A retrospective descriptive study was conducted at Teaching Hospital Batticaloa in February 2026 using secondary data obtained from IPC Unit. Exposure records reported from January to December 2025 were reviewed. All HCWs who reported needle stick injuries were included. Data were analysed using SPSS with descriptive statistics.

Results: A total of 58 occupational exposure incidents were analysed. Most exposures occurred among HCWs aged 21–30 years (62.1%) and females (72.4%). Nursing officers accounted for the highest proportion (41.1%). Nearly half of the incidents occurred in subspecialty wards (48.3%). Completed hepatitis B vaccination was reported in 60.3% of exposed workers, while 22.4% had incomplete vaccination and 17.2% were not vaccinated. Only one person was found antibody titres less than 10mIU/mL and was revaccinated, whereas 6 (12.5%) of person identified titre level between 10-100mIU/mL whom given booster dose. The majority of exposures occurred during surgical procedures (53.4%), and patient needles were the most common source (79.3%).

Conclusions and Recommendations: Occupational exposure remains a concern among healthcare workers, particularly among nursing staff. Strengthening sharps safety practices, improving hepatitis B vaccination coverage, and regular monitoring of antibody titres are important to enhance occupational safety.

Cancer Mortality Transition in Sri Lanka: Diverging Incidence, Improving Outcomes, and the Rising Impact of Competing Mortality in an Ageing Population

Atchuthan A¹

¹*National Cancer Institute, Apeksha Hospital, Maharagama, Sri Lanka.*

Background: Population ageing is reshaping cancer epidemiology globally, particularly in low- and middle-income countries. Competing mortality, defined as deaths from causes other than cancer that influence overall mortality patterns, becomes increasingly important in ageing populations. This study evaluated cancer mortality transition in Sri Lanka by integrating mortality-to-incidence ratios (MIR) and competing mortality.

Methods: A population-based ecological study was conducted using national cancer incidence data from the Sri Lanka National Cancer Registry and all-cause mortality data from the Department of Census and Statistics for 2011–2021. Annual crude incidence counts, cancer deaths, and all-cause deaths were analysed. MIR was calculated as the ratio of cancer deaths to incident cancer cases, while competing mortality was assessed as the proportion of all deaths attributable to cancer. Percentage changes and temporal trends were examined overall and according to sex and age group.

Results: Cancer incidence increased by 116% (17,482 to 37,753 cases), whereas cancer mortality increased by 22.5% (12,203 to 14,949 deaths). MIR declined from 0.70 to 0.40 over the study period. Male MIR remained consistently higher than female MIR (2021: 0.47 vs 0.33). Cancer accounted for approximately 9–11% of all deaths, declining to 9.1% in 2021. Age-specific analyses demonstrated peak cancer contribution and MIR among individuals aged 60–74 years, followed by lower values among those aged ≥75 years, consistent with increasing competing mortality.

Conclusion: Sri Lanka demonstrates a cancer mortality transition characterised by rapidly increasing incidence, declining MIR, and persistent competing mortality. The decline in MIR is consistent with improving population-level cancer outcomes but may also reflect changes in early detection, diagnostic practices, treatment, and case mix. These findings emphasise the importance of incorporating competing mortality into geriatric oncology, cancer screening policies, treatment decision-making, and future cancer control planning in ageing populations.

Diagnostic Delay Signature: Inferring Late Cervical Cancer Presentation Using Stage Distribution and Mortality-to-Incidence Ratio Trends—Evidence from Sri Lanka

A Atchuthan¹

¹ *National Cancer Institute, Apeksha Hospital, Maharagama, Sri Lanka.*

Background: Late presentation is a major determinant of cervical cancer outcomes in low- and middle-income countries, yet direct measures of diagnostic delay are rarely available. We propose the Diagnostic Delay Signature (DDS), a novel ecological framework integrating stage distribution and mortality-to-incidence ratio (MIR) to infer delayed diagnosis at the population level.

Methods: A population-based ecological study was conducted using publicly available Sri Lanka National Cancer Registry data. A total of 9,190 incident cervical cancer cases diagnosed between 2015 and 2022 were analysed. Stage distribution was used to calculate the late-stage proportion (stage III–IV), while MIR was derived from national incidence and mortality data for available years (2015, 2019–2021). DDS was defined by integrating late-stage burden and MIR to characterise diagnostic and treatment patterns.

Results: Late-stage presentation remained persistently high, ranging from 38.7% to 52.7%, peaking in 2016 (52.7%) before improving to 40.0% in 2022. In contrast, MIR remained consistently low (0.14–0.17) with minimal temporal variation. This discordance between persistent late-stage presentation and stable low MIR suggests a DDS pattern of diagnostic delay with treatment compensation. Temporal trends demonstrated transient improvement during 2017–2018, deterioration in 2019, and gradual recovery thereafter.

Conclusion: Cervical cancer in Sri Lanka demonstrates persistent delayed presentation despite favourable ecological survival proxies, suggesting that treatment services partially compensate for late diagnosis. DDS may serve as a complementary population-level framework for identifying diagnostic gaps and monitoring early detection strategies using routinely available registry data.

High-risk human papillomavirus in a subset of head and neck carcinoma patients, Sri Lanka

Samaraweera B¹, Jayasekera KAMP², De Silva NWBKH², Sritharan G², Gunathilaka L¹, Wijayasiriwardhana J³, Abeynayake JI¹

¹*Department of Virology, Medical Research Institute, Colombo 08,*

²*National Cancer Institute, Maharagama,*

³*Ministry of Health, Sri Lanka*

Introduction: Head and neck squamous cell carcinoma (HNSCC) is one of the commonest cancers in Sri Lanka. In addition to smoking, alcohol and betel-chewing, growing evidence show association of high-risk human papillomavirus (HR-HPV) in HNSCC, especially oral, and oropharyngeal carcinomas. This study was directed to determine HR-HPV in HNCC population at national level to understand the molecular epidemiology of HPV.

Methodology: This cross-sectional study conducted at Tertiary Care Hospital and National Laboratory for a one-year period. Histologically confirmed HNCC patients naive for the treatment of current episode were included. HPV DNA positivity was assessed using genotyping real-time PCR assay in cyto-smears collected by swabbing of cancer lesions. Sociodemographic data gathered using questionnaire was analyzed using descriptive-statistics.

Results: Total cohort was 150 HNCC patients with 120 males and 30 females. Seventy oral and 80 oropharyngeal cancer patients were included. Age-range was 24-82 years with mean, median and mode of 57, 57 and 74 years respectively. Out of total tested, four (2.6%) were positive for high-risk HPV DNA. All positives (100%) were detected with HPV-16 while negative for HPV-18. Positive cohort were all males in the age group of 55-82 years. One patient had supraglottic growth and another had right side gingival growth.

Conclusion: High-risk HPV-16 was detected at 2.6% of the subset of HNCC patients predominantly in adult males. Mapping of molecular epidemiology of HPV in HNCC patients using non-invasive sampling techniques and advanced molecular diagnostics are important in directing the public health policies including gender-neutral immunization consisting of important HPV genotypes.

Knowledge, attitudes, and practices of healthcare support staff regarding exposure to antineoplastic drugs and drug-contaminated waste at Apeksha Hospital

Ranmini AJMH¹, Ranasinghe SS¹, Randew AGR¹, Rathnayake KJAC¹, Ediriweera MK¹

¹*Faculty of Medicine, University of Colombo*

Introduction: Antineoplastic drugs can cause serious adverse effects with constant occupational exposure. Healthcare support staff frequently handle chemotherapy patients and contaminated materials despite often being excluded from formal training programmes and safety monitoring systems.

Objectives: This study aims to assess the knowledge, attitudes, and practices of healthcare support staff at Apeksha Hospital regarding exposure to antineoplastic drugs and drug-contaminated waste, and their adherence to safety measures.

Methods: We conducted a cross-sectional descriptive study with an analytical component among 120 support staff which included attendants and Saukya Karya Sahayaka of Apeksha hospital. An expert validated interviewer-based questionnaire was used to assess sociodemographic factors, knowledge, attitudes and practices related to safety from antineoplastic drug exposure. Knowledge and practices were categorized as adequate and inadequate while attitudes were categorized as high or low based on cut-offs which were used in similar previous studies. General safety practices which included handling patient excreta and laundry, cleaning surfaces, waste disposal, hygiene after use of personal protective equipment and adherence to administrative controls were assessed in all participants. Associations for practices were analyzed using Chi-square and Fisher's Exact test where associations were considered as significant when $p < 0.05$.

Results: Majority had good knowledge regarding antineoplastic drug exposure and safety measures (83.3%, $n = 100$). Most had high self-efficacy (80.8%, $n=97$), low perceived barriers (85.8%, $n=103$) and high perceived risks (55.8%, $n = 67$). Cumulative general safety practice score was inadequate in majority (69.2%, $n=83$). Significant associations for adequate safety practices were employment duration ($p = 0.026$), knowledge ($p = 0.042$) and perceived risks ($p = 0.024$).

Conclusions: Although majority of the participants had adequate knowledge, high self-efficacy, perceived risks and low perceived barriers, safety practices in majority were inadequate. Implementing well structured, regular training with hands on experience which are specifically tailored to their educational level and job responsibilities and specially targeting safety habits and regular monitoring may improve occupational safety in healthcare support staff exposed to antineoplastic drugs.

Relationship Between Coping Strategies and Quality of Life in Patients Diagnosed with Chronic Kidney Disease in a Tertiary Care Hospital in Sri Lanka

Dayarathna AMKC¹, De Silva TNM¹, Deemantha IWH¹, Weliange SDS¹

¹*Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives: Chronic kidney disease causes significant physical, psychological, and socioeconomic difficulties, particularly in resource-limited settings like Sri Lanka. Locally, researchers have not thoroughly explored the relationship between coping strategies and health-related quality of life in CKD patients. This study aimed to describe the coping strategies and quality of life of CKD patients and to assess the association between coping strategies and QoL among patients attending a tertiary care hospital in Sri Lanka

Method: A descriptive cross-sectional study with an analytical component was carried out on 120 CKD patients. The Brief COPE Scale and the Kidney Disease Quality of Life Short Form (KDQOL-SF) were used to assess coping strategies and QoL, respectively. Associations between coping strategies and QoL domains were also analyzed.

Results: Participants (mean age 58.23 ± 11.54 years; 69.2% male) used adaptive coping strategies (mean = 2.81 ± 0.56) over maladaptive strategies (mean = 1.65 ± 0.34). Problem-focused coping strategies were the most common (mean = 3.01 ± 0.75). Poor QoL was observed in 52.5% (mean score = 57.98 ± 13.45). Patient satisfaction (mean = 89.6 ± 15.7) and effect of disease (mean = 82.2 ± 15.4) scored the highest, while burden of kidney disease (mean = 22.6 ± 21.8) and social interaction quality (mean = 35.8 ± 16.0) scored the lowest. There was a significant positive correlation between adaptive coping and social support ($\rho = 0.519$, $p < 0.001$), and a significant negative correlation existed between maladaptive coping and effect of disease domain ($\rho = -0.524$, $p < 0.001$) and overall QoL ($\rho = -0.402$, $p < 0.001$).

Conclusions: Coping strategies have an important role in determining the QoL of CKD patients. Adaptive coping correlates with better quality of life, whereas maladaptive coping links to poor outcomes.

Knowledge, attitudes and practices regarding Obstructive Sleep Apnoea among pregnant women attending antenatal clinics in Dompe Medical Officer of Health Area

Piyumali PAP¹, Jayawardene DMS²

¹*Ministry of Health*

²*Department of Community Medicine, Faculty of Medicine, University of Colombo*

Introduction and Objectives– Obstructive Sleep Apnoea (OSA), characterized by recurrent airway collapse during sleep, is linked to adverse maternal and fetal outcomes during pregnancy. Inadequate knowledge and suboptimal sleep-related practices and attitudes concerning OSA among pregnant women lead to delayed diagnosis and complications. This study assessed knowledge, attitudes and practices regarding OSA among pregnant women attending antenatal clinics in Dompe MOH area.

Method– A descriptive cross-sectional study was carried out among 280 pregnant women of any gestation, attending antenatal clinics in Dompe MOH area recruited using two staged cluster sampling method. They were assessed using a pre-tested interviewer-administered questionnaire. Basic characteristics, knowledge, attitudes and practices were described using descriptive statistics.

Results– Response rate was 100%. Mean age of the study population was 30 years (SD = 5.1 years; 95% CI = 29.4 – 30.6 years). Most were in the second trimester (41.4%). Majority (53.6%) had poor knowledge about OSA and only 27.5% of women knew that having a short neck was a risk factor for OSA. Most had favorable attitudes towards OSA with 58.9% considering it as a serious condition and 78.9% willing to seek medical care if suspected. Although many followed correct practices, 95.7% had never discussed sleep issues with a health care provider and 53.6% didn't maintain a regular sleep schedule.

Conclusions- Majority had poor knowledge on OSA. Measures should be taken to improve their knowledge. Although most had favorable attitudes and practices, measures should be taken to further improve the negative attitudes and practices identified.

Perceived effects of health and safety practices and contributory factors among sanitation workers at the Colombo North Teaching Hospital, Ragama, Sri Lanka

Wazil MS.¹, Vitharana ES.¹, Waidyasekara DDTA.¹, Wattegedara HL.¹, Weerakkodi DS.¹, Kodikara K.²

¹*Faculty of Medicine, University of Kelaniya*

²*Department of Medical Education, Faculty of Medicine, University of Kelaniya*

Introduction: Sanitation workers play a vital role in maintaining a safe environment for both the patients and hospital staff. However, the adequacy of knowledge of health and safety practices are under-explored.

Objective: This study aims to describe the knowledge, attitudes and health and safety practices among sanitary workers at the Colombo North Teaching Hospital.

Methods: A descriptive cross-sectional study was conducted among sanitary workers using a total population sampling method and an interviewer administered questionnaire. Descriptive statistics were used to describe knowledge, attitudes, and practices (KAP) and associations between practices, socio-demographic factors, and perceived health effects were explored.

Results: Of 131 eligible participants, 119 responded (response rate 90.8%). The majority were female (n=82, 68.9%) and over 55 years old (n=65, 54.6%). Most participants (n=78, 65.5%) demonstrated good knowledge and attitudes scores towards health and safety, but only 15.9% (n=19) had good practice scores while a majority (n=65, 54.9%) had moderate practice scores. Workers with longer employment duration had lower practice scores ($p = 0.002$). Only a 25.2% (n=30) reported receiving safety training, which was associated with better practice ($p = 0.02$). Better practice scores were associated with good combined knowledge and attitude scores ($p < 0.001$) and better self reported health outcomes ($p = 0.002$) but not with better overall family health ($p = 0.876$).

Conclusion: The findings show inadequate safety practices among the sanitary workers at CNTH with moderate knowledge regarding health and safety. Implementing regular training programs focused on behavioral change may improve health and safety practices of sanitary workers.

Knowledge and Awareness of Autism Spectrum Disorder and Related Misconceptions Among Mothers of Children Under Five Years of Age in Central Sri Lanka

Piyathissa HMPP¹, Jinadasa WGTM¹, Rathnayake WMPL¹, Wijesinghe HBIP¹, Kiridena MGDVK²

¹ *Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka*

² *Department of Paediatrics, Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka*

Background: Early identification of autism spectrum disorder (ASD) and timely intervention improve developmental and social outcomes. In Sri Lanka, delayed diagnosis remains a concern, and inadequate maternal awareness may contribute to this gap.

Objectives: To assess maternal knowledge and awareness of ASD, related misconceptions, and associated factors among mothers of children under five years in urban and rural settings in Central Sri Lanka.

Methods: A descriptive cross-sectional study was conducted among 400 mothers attending immunization and child welfare clinics in selected urban and rural healthcare institutions. Data were collected using a validated interviewer-administered questionnaire. Knowledge and misconception scores were calculated, and associations were analysed using Mann–Whitney U, Kruskal–Wallis, and Spearman’s rho tests.

Results: Only 5.2% of participants demonstrated good knowledge of ASD, while 66.8% had very poor knowledge. Overall, 34.4% had heard of ASD, with no significant difference between urban and rural populations ($p>0.05$). Ethnicity, employment status, monthly income, and number of children were not significantly associated with knowledge scores ($p>0.05$). Although higher educational attainment showed a positive trend, this was not statistically significant. A common misconception was attributing ASD to poor parenting. Among those aware, electronic media was the main information source (67.9%), while only 21.5% reported healthcare-based education.

Conclusions: Maternal awareness of ASD is inadequate in both urban and rural settings in Central Sri Lanka. Strengthening awareness through maternal and child health services and electronic media may improve early recognition and reduce diagnostic delays.

Parental Knowledge, Attitudes and Practices Related to the Risk of their Children Being Exposed to Lead; a Descriptive Cross-Sectional Study in Colombo North Teaching Hospital, Sri Lanka.

Rathnayake NN¹, Ranaweera RSP¹, Rathnayaka GPN¹, Rathnayaka RMSN¹, Randenithenna TMJDK¹, Dayasiri KC²

¹ *Faculty of Medicine, University of Kelaniya,*

² *Department of Paediatrics, Faculty of Medicine, University of Kelaniya.*

Introduction and Objectives: Lead is a heavy metal that is known to be unsafe regardless of the level of exposure. It is known to be toxic, especially to children, affecting their neurodevelopment, behaviour and well-being. This study aims to determine parental knowledge, attitudes and practices related to the risk of their children being exposed to lead.

Method: This descriptive cross-sectional study included parents over the age of 18 years having a child under 12 years attending paediatric wards and clinics. Participants were selected by systematic sampling of every other eligible parent. A modified interviewer-administered digital questionnaire was used to gather information. Data were analysed using SPSS with descriptive and inferential statistics.

Results: Among the 433 participants, the majority were female (n = 309, 71.4%), and 53.8% demonstrated good knowledge on lead exposure, while 60.0% showed good practices to minimise it. The strongest statistically significant positive correlation was seen between education level and knowledge ($\rho = 0.558$, $p < .001$). A statistically significant association was observed between education level and the attitude that childhood lead exposure is a public health problem ($\chi^2(4) = 20.35$, $p < .001$), with higher education levels associated with greater concern. No statistically significant correlation was found between knowledge and practice Scores ($\rho = -0.090$, $p = 0.06$). Social media (46.4%) was the most preferred information source.

Conclusion: Knowledge did not correlate with practices, suggesting that mere improvement of knowledge is insufficient to improve prevention practices. We recommend that the effectiveness of targeted educational interventions that improve practices be further studied.

Relationship Between Chronic Diseases and Wellbeing Level of The Elderly People in an Urban Area in Colombo district, Sri Lanka

Abeysinghe AADSND¹, Kanthilatha N¹, Nahallage CAD¹, Abeygunawardana RAB²

¹*Department of Anthropology, Faculty of Humanities and Social Sciences, University of Sri Jayewardenepura, Sri Lanka*

²*Department of Statistics, Faculty of Science, University of Colombo*

Introduction and Objectives: Rising chronic diseases among the elderly population in Sri Lanka place a substantial burden on the healthcare system and affect their wellbeing. This study aimed to examine the relationship between chronic diseases and the wellbeing level of elderly individuals, with attention to the influence of socio-economic factors.

Methods: A mixed-methods study was conducted in the Korathota GN Division. Quantitative data from 325 randomly selected participants were analyzed using SPSS. Additionally, 30 participants with the lowest wellbeing scores, identified via the WHOQOL-BREF scale, were purposively selected for qualitative in-depth interviews and analyzed using thematic analysis.

Results: The analysis revealed a significant negative relationship between chronic diseases and wellbeing levels ($p < .05$) among elderly participants. Regression results showed each additional chronic condition reduced wellbeing scores by 6.253 points ($\beta = -6.253$), indicating a stronger effect than income improvement ($\beta = 5.451$). The model explained 50 percent of variance in wellbeing (Adjusted $R^2 = 0.507$). Qualitative findings highlighted reduced mobility, emotional distress, increased dependency, and limited social participation among those with chronic diseases. These factors contributed to diminished autonomy, reduced self-worth, and lower perceived quality of life.

Conclusions: This study indicates a significant association between chronic disease burdens and reduced wellbeing. Due to its cross-sectional design and localized, selective sampling, the findings represent observed associations rather than definitive causality and lack broad generalizability. Future research should account for varying disease severity and socio-economic influences to clarify these complexities.

Clinicopathological Correlates of Molecular Subtypes in Breast Carcinoma: A single unit experience

Wijekoon WMRS¹, Dehigama DGUS¹, Gamage HHM¹, Dissanayaka DMHAB¹, Kanchana WPL¹

¹*Department of Surgery, Faculty of Medical Sciences, University of Sri Jayewardenepura*

Introduction: Breast cancer has molecular subgroups that affect systemic treatments and outcome. Understanding local subtype distribution is critical for optimizing oncological resources.

Objectives: To determine the prevalence of molecular subtypes in a surgical cohort and assess their relationship with unfavorable histopathological features and patient's age.

Methodology: A retrospective analysis of 149 breast cancer patients was conducted between January 2024 to June 2025. Tumours were classified as Luminal (HR+/HER2-), Triple Positive (HR+/HER2+), HER2-enriched (HR-/HER2+), or Triple Negative (TNBC). These were associated with mean age, tumor stage histological grade, and lymphovascular invasion (LVI).

Results: The most common type of breast cancer was Luminal (52%), followed by TNBC (20%), Triple Positive (16%), and HER2-enriched (12%). HER2-enriched and TNBC patients had a significantly younger mean age (45.7 and 50.0 years, respectively) than the Luminal group (59.8 years). TNBC cases had the highest proportion of high-grade (Grade 3) histology compared to Luminal tumors. Furthermore, LVI was most commonly found in the HER2-enriched tumours (66.7%). The tumour size had no significant correlation with IHC(Immunohistochemistry).

Discussion and Conclusion: Our study shows that there is a significant load of aggressive non-luminal variants impacting the younger group. TNBC has a higher histological grade, and HER2-enriched tumors have more evident LVI, which reflects their aggressive biology and increased metastatic potential. While Luminal subtypes are the most common, TNBC and HER2-enriched tumors exhibit aggressive histopathological traits in much younger patients. Prompt subtype identification remains essential for effective multidisciplinary management. Therefore, it is strongly recommended that the necessary resources for molecular subtyping (e.g., immunohistochemistry facilities) be made accessible at every hospital managing breast cancer patients.

Beyond Survival: Quality of Life After Breast Cancer Surgery – A Prospective Study at the Breast Clinic, Colombo South Teaching Hospital, Sri Lanka

Jayalath NT¹, Silvapulle WS¹, Dissanayake DMCHB¹, Kanchana WPL¹

¹*Department of Surgery, Faculty of Medical sciences, University of Sri Jayewardenepura*

Introduction: Health-related quality of life (HRQOL) is an important outcome in breast cancer care, as surgery can affect physical, mental and social wellbeing of the patient. In Sri Lanka despite optimal oncosurgical care, the HRQOL is not routinely evaluated. This study aimed to assess the long-term HRQOL of patients undergoing breast surgery.

Methodology: A prospective longitudinal study was conducted in tertiary care center among consecutive female patients with histologically proven breast cancer undergoing surgery. An interviewer-administered questionnaire was used to obtain data at baseline, 1 year and 2 years postoperatively. The questionnaire included sociodemographic and clinicopathological data and the QOL was assessed using Breast Q questionnaire. Data was analyzed using SPSS version 29, with significance set at $p < 0.05$

Results: A total of 114 patients were included. The age ranged from 33-88 years (median 59); 32 (28%) were below 50 years. Majority had T2 disease (52.63%), and nodal positivity was observed in 51 (44.74%). Regarding surgery, 61 (53.50%) underwent breast conserving surgery (BCS), 41 (35.96%) mastectomy, and 12 (10.52%) mastectomies with reconstruction. At 1- and 2-year follow-up, patients who underwent BCS demonstrated significantly better HRQOL in body image, emotional wellbeing, and sexual functioning compared to mastectomy ($p < 0.05$). No significant differences were observed between the BCS and reconstruction, although breast-related symptoms were higher with reconstruction.

Conclusion: Breast cancer affects women of all ages. Our study, consistent with current literature, demonstrates better HRQOL with BCS and reconstruction. These findings support incorporating patient-reported outcomes in surgical decisions and favor BCS when feasible.

Distribution Patterns and Demographic Profiling of Malignancies in a Tertiary Surgical Unit: A One-Year Retrospective Analysis

Uthpala LWDD¹, Mallawa J², Senevirathne SMRD²

¹Postgraduate Institute of Medicine University of Colombo ²Sri Jayewardenepura General Hospital

Introduction and Objectives: Despite expanding oncological services in South Asia, malignancies often present at advanced stages. Unit-level epidemiological data is vital for optimizing resource allocation and surgical planning. This study characterizes the frequency, demographic distribution, and clinical staging of malignancies within a single tertiary care surgical unit.

Method: A retrospective descriptive analysis was conducted using the unit's cancer registry from October 2023 to September 2024. Data regarding age, sex, primary site, and TNM stage at presentation were extracted. Quantitative variables were analyzed as mean $\pm$ sample standard deviation (SD).

Results: Sixty-one patients were identified. The mean age was 62.4 ± 15.7 years, with a notable female predominance (M:F ratio 1:2.2). The most frequent malignancies were colorectal carcinoma (42.6%, n=26), followed by thyroid carcinoma (18.0%, n=11), and breast cancer (14.7%, n=9). Notably, all thyroid and breast cancer presentations were female. Of the colorectal carcinoma cohort, 57.6% (n=15) presented with locally advanced or metastatic disease, precluding primary curative resection in some instances.

Conclusions: These findings indicate a high burden of advanced-stage cancers, suggesting that existing referral and screening pathways may be insufficient for early detection. The high frequency of colorectal and breast cancers emphasizes the need for targeted, community-based screening initiatives. Furthermore, the necessity for gender-sensitive diagnostic clinics is highlighted by the exclusive female predominance observed in specific malignancies. In conclusion, this unit-level audit highlights the necessity of improving public health awareness and decentralizing diagnostic services to transition toward early-stage detection and more favorable surgical outcomes in the Sri Lankan healthcare context.

Optimizing Patient-Centered Colonoscopy Preparation Pathways in a Tertiary Surgical Unit: A Prospective Quality Improvement Study

Dissanayake D.M.C.H.B¹, Ranaweera K.R.K.L.K², Silvapulle W.S.¹, Jayalath N.T¹, Wijesinghe K¹

¹*Department of Surgery, Faculty of Medical Sciences, University of Sri Jayewardenepura*

²*Professorial Surgical Unit, Colombo South Teaching Hospital*

Introduction and Objectives: High-quality bowel preparation is essential for effective colonoscopy. International guidelines recommend split-dose regimens, optimized timing, adjunctive measures, and enhanced patient education to improve bowel cleanliness and tolerability. This study aimed to assess adherence to ESGE 2019 guidelines, evaluate bowel preparation quality using the Boston Bowel Preparation Scale (BBPS), assess patient tolerability and satisfaction, and identify areas for improvement.

Method: A prospective quality improvement audit was conducted over two months at the Professorial Surgical Unit, Colombo South Teaching Hospital. Adult patients undergoing elective colonoscopy were included. Data were collected using clinical records, procedural findings, and patient feedback. Findings were compared against ESGE standards.

Results: Twenty-three patients were evaluated, with a mean age of 60 years. Polyethylene glycol was used in all patients, while adherence to clear fluid dietary instructions was high (95.7%). The mean BBPS was 6.91, indicating acceptable bowel preparation quality, and ileal intubation was achieved in 82.6% of procedures. However, only 13% received split-dose preparation, enhanced patient education was documented in 30.4%, and adjunctive measures were rarely used (8.7%). Patient tolerability was poor, with 43% rating the preparation experience poorly, 52.2% reporting side effects, and 78% experiencing sleep disturbance.

Conclusions: Although bowel cleanliness was acceptable, adherence to ESGE recommendations remained limited, particularly regarding split-dose regimens and patient education. Standardized patient-centered preparation pathways incorporating optimized timing and structured education may improve both procedural quality and tolerability. Re-audit following implementation is recommended.

Quality of life in patients with interstitial lung diseases in a respiratory clinic in sri jayewardenepura general hospital

Illukkumbura N.S.I.¹, Perera S.G.²

¹National Hospital of Sri Lanka- Colombo

²Sri Jayewardenepura General Hospital

Background & Objective:

Interstitial lung diseases (ILDs) cause progressive fibrosis and functional impairment. This study evaluated the association between a retrospective assessment of disease progression (historical clinical progression) and current patient-reported quality of life (QoL).

Method:

This retrospective cohort study with a cross-sectional QoL assessment was conducted at a Sri Lankan tertiary respiratory clinic. The required sample size was calculated as 139 patients using a standard single proportion formula (assuming a 10% expected population proportion, 95% confidence interval, and 5% precision). Accordingly, a convenience sample of 140 ILD patients meeting the inclusion criteria was recruited consecutively during the study period. Disease progression was determined by calculating delta (Δ) values (the change over time from baseline to recent follow-up) for high-resolution computed tomography (HRCT) chest scans (quantified numerically by assigning ordinal values to progressive, stable, or improving states), lung function tests (Forced Expiratory Volume in 1 second [FEV1] and Forced Vital Capacity [FVC]), and 6-minute walk tests (6MWT distance and oxygen saturation [SpO2]). Current QoL was measured using the King's Brief Interstitial Lung Disease (K-BILD) questionnaire. Data were analyzed via Pearson correlation.

Results:

The cohort was predominantly female (76.26%, n=106) and mostly aged 60–79 years. Primary ILD subtypes included Organizing Pneumonia (36.43%, n=51), Non-Specific Interstitial Pneumonia (NSIP; 21.43%, n=30), Usual Interstitial Pneumonia (UIP; 15.71%, n=22), fibrotic NSIP (12.86%, n=18), Hypersensitivity Pneumonitis (7.14%, n=10), Sarcoidosis (5.00%, n=7), Acute Interstitial Pneumonia (n=1), and indeterminate for UIP (n=1).

- **QoL & Correlations:** The mean K-BILD score was ± 74.86 SD out of 100 (median: 80). Statistically significant positive correlations were found between final K-BILD scores and the calculated delta (Δ) functional metrics indicating progression: quantified HRCT changes ($r = 0.336$, $p < 0.001$), Δ 6MWT distance ($r = 0.317$, $p < 0.001$), Δ FEV1 ($r = 0.306$, $p < 0.001$), Δ FVC ($r = 0.292$, $p < 0.001$), and Δ SpO2 ($r = 0.272$, $p = 0.001$).

Conclusions:

ILD patient quality of life deteriorates significantly with physiological and radiological disease progression over time. Early detection and targeted management of progression are essential to preserve patient well-being. Prospective studies are required to establish causality.

Establishing a Prospective Interstitial Lung Disease Registry in a Sri Lankan Tertiary Care Centre: A Pilot Study of Feasibility, Data Capture, and Baseline Characteristics

Arachchi HRE¹, Weeratunga P¹, Rathnapala A²

¹*Faculty of Medicine, University of Colombo*

²*Respiratory treatment Unit, National Hospital Galle*

Introduction and objectives: Interstitial lung diseases (ILDs) are a heterogeneous group of disorders. In Sri Lanka, the lack of a structured ILD registry limits understanding of disease patterns and outcomes. This pilot study evaluated the feasibility of establishing a prospective ILD registry as a foundation for future expansion into a national registry and described the baseline characteristics of enrolled patients.

Methods: This prospective pilot study was conducted at the ILD clinic, National Hospital Galle. Consecutive eligible adults were enrolled. An interviewer-administered electronic questionnaire, adapted from the Indian and BTS UK ILD registries, collected demographic, clinical, physiological, radiological, and serological data. Final ILD diagnoses were established through multidisciplinary team (MDT) discussion.

Results: A total of 71 consecutive eligible patients were enrolled, with a 100% recruitment rate. Mean questionnaire completion time was 20 minutes (range 12–35). Data completeness varied across registry domains. Demographic and clinical data were complete for all participants (100%), while physiological and routine serological data were available for 73.2% each. MDT discussions required a mean of approximately 20 minutes per patient and involved at least three respiratory physicians, one radiologist, and one rheumatologist for each case.

The mean age was 64.8 years (SD 12.7), with 64.8% being female. Most patients were never smokers (54.9%), followed by passive smokers (22.5%) and ex-smokers (19.7%). Baseline mMRC dyspnoea grade 0–1 was observed in 46.5% and grade 2–4 in 53.5%. Most patients did not require oxygen therapy (94.4%), while 21.1% received antifibrotic therapy. Final radiological diagnoses were most frequently unclassifiable interstitial lung disease (33.8%), followed by non-specific interstitial pneumonia (32.4%), and usual interstitial pneumonia (18.3%). Connective tissue diseases-associated ILD was the most common aetiological category (26.8%), followed by hypersensitivity pneumonitis (15.5%).

Conclusions: This pilot study demonstrates the feasibility of establishing a structured ILD registry with MDT-based diagnostic classification in a tertiary care setting. Addressing gaps in investigation-based data capture may facilitate future expansion towards a national ILD registry in Sri Lanka.

The Impact of Household Cooking Fuel and Exposure Duration on Paediatric Sleep Quality in Sri Lanka: A Meditational Analysis

Thilakarathna HMCRC^{2,6}, Kariyawasam KHAY^{1,6}, Jayasinghe JMDC^{1,3}, Karunarathne CB^{1,3}, Priyanga P¹, Manomi KAN¹, Madusshica R¹, Kumarasiri OKDVT², Rishadha MRF², Kumaranathunga PND², Wijayasinghe WADHM², Chandrasekara CMJC², Dissanayake P², Bowatte G², Waidyasekera H¹, Goonewardena CSE¹, Amarasekara AATD¹, Lin C⁵, Schwarze J⁵, Madegedara D³, Yasaratne D², Wimalasekera SW¹

¹University of Sri Jayewardenepura, Sri Lanka

²University of Peradeniya, Sri Lanka

³Wayamba University of Sri Lanka

⁵University of Edinburgh, UK

⁶KIU, Sri Lanka

Introduction: Indoor air pollution (IAP) is a recognized pediatric health threat in Sri Lanka. While research often focuses on fuel types, behavioral patterns of children, specifically the time spent in the kitchen, are rarely quantified. This study investigates the association between cooking fuel, exposure duration, and sleep quality among preschoolers in Colombo and Kandy.

Method: A community-based prospective study was conducted with 111 children ($M=4.38\pm0.98$ years). Sleep quality was assessed using the Paediatric Sleep Quality Questionnaire (PSQQ), with scores >0.33 indicating high risk for pediatric sleep-related breathing disorders. Due to non-normal distribution (Shapiro-Wilk, $p<0.001$), data were analyzed using Spearman's correlation, Mann-Whitney U tests, and multivariable linear regression.

Results: The cohort's mean PSQ score was 0.096 ± 0.11 , with a high risk prevalence of 4.5%. Significant regional differences were observed ($r_s=-0.251, p=0.008$), with higher risk scores (poorer quality) in Colombo compared to Kandy. Children in firewood-using households spent significantly more time in the kitchen than LP gas users, where 75th percentile for firewood users was double that of the LP gas group (2.50 vs. 1.25 hours; $U=1024.5, p=0.037$). In the multivariable model ($adj.R^2=0.088, p=0.038$), daily kitchen exposure time was the only significant independent predictor of poorer sleep quality ($\beta=0.236, p=0.019$). Fuel type, smoking, and geographical location were not significant predictors once adjusted for kitchen duration, indicating that the effect of fuel type may be mediated by exposure time.

Conclusions: Prolonged kitchen exposure duration is an independent risk factor for paediatric sleep-related breathing disorders. While solid fuel use indirectly contributes to this risk by facilitating longer child presence in the kitchen, interventions should prioritize behavioral strategies to minimize a child's presence in the cooking environment during active hours, regardless of the fuel type used.

The epidemiological characteristics and factors associated with COPD control among patients attending outpatient clinics in the Southern Province, Sri Lanka

Geethan WN¹, Herath HMM²

¹Post graduate institute of Medicine, University of Colombo

²Faculty of medicine, University of Ruhuna.

Introduction: Uncontrolled COPD leads to substantial activity limitations, poor quality of life, frequent exacerbations, and an increased healthcare burden due to recurrent hospital admissions. Despite this considerable public health burden, research on factors associated with COPD control remains limited, particularly in resource constrained settings.

Methodology: A descriptive, multi-centre cross-sectional study was conducted among 368 COPD patients attending medical and respiratory outpatient clinics at the National Hospital Galle and several local hospitals. COPD control was assessed using a composite multidimensional definition incorporating three components: symptom burden measured by the COPD Assessment Test (CAT), exacerbation history during the preceding three months, and the patient's subjective perception of disease stability. Sociodemographic factors, smoking history, inhaler adherence, and inhaler technique were evaluated. Multivariable logistic regression was used to identify factors associated with uncontrolled COPD.

Results: The study population predominantly comprised males (83.2%) and individuals residing in rural areas (86.7%). Among 368 participants, 204 (55.4%) had uncontrolled COPD. Heavy smoking was independently associated with uncontrolled COPD (adjusted odds ratio [OR] 1.94, 95% confidence interval [CI] 1.02–3.72, $p=0.043$). Poor inhaler adherence was also significantly associated with uncontrolled disease (adjusted OR 2.01, 95% CI 1.11–3.73, $p=0.023$). At least one inhaler technique error was identified in 46.7% of the study population.

Conclusions: More than half of COPD patients attending outpatient clinics had uncontrolled disease. Heavy smoking, inhaler non-compliance, and inhaler technique errors were important, potentially modifiable factors associated with poor disease control.

Short-Term Outcomes of Cadaveric and Living Donor Kidney Transplantation: A Single center Experience

Joel Arudchelvam¹, Rukshan Siriwardana¹, Hansani Hagodagedara¹, Thushan Gooneratne¹, Rezni Cassim¹

¹*Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction: Kidney transplantation (KT) is the preferred treatment for end-stage kidney disease (ESKD). In Sri-Lanka, the number of cadaveric donor (CD) transplants are less compared to living donor (LD) transplants unlike in developed countries. This study compares short-term outcomes between CD and LD recipients.

Methods: A Retrospective analysis of stored data of KT at the National Hospital of Sri Lanka was conducted. Mann-Whitney-U test for categorical variables and Fischer's Exact test for frequencies were used appropriately.

Results: Sixty-five patients were included (45 LD, 20 CD) with a mean follow-up of 14.79 months. The commonest etiologies for the ESKD were diabetic nephropathy (33.33%) and hypertensive nephropathy (33.33%). Delayed graft function (DGF) was significantly more frequent in CD (25.00% vs. 6.67%, $p = 0.04$). CD had higher Mean Ischaemic Time (MIT) compared to LD (234.33 ± 73.84 min vs. 68.89 ± 47.41 min, $p < 0.01$). Early post-operative infections were commoner among CD ($p > 0.05$) and immunosuppression-related infections were significantly higher in the CD (20% vs. 2.2%, $p = 0.03$). Mean discharge serum creatinine (1.12 ± 0.59 vs. 1.03 ± 0.55 mg/dL, $p = 0.35$) and best creatinine over 3 months (1.01 ± 0.58 vs. 0.83 ± 0.30 mg/dL, $p = 0.21$) were higher in CD. One (1.54%) CD recipient died from post-op pneumonia. One-year overall survival was 93.67% in CD versus 100% in LD, while graft survival was 100% in both groups.

Conclusion: CD recipients showed significantly higher MIT, DGF highlighting the need of timely preparation of CD & recipients.

Management Strategies and Early Clinical Outcomes of Aortic Dissection: A Single-Centre Experience from a Tertiary Vascular Unit

Joel Arudchelvam¹, Rukshan Siriwardana¹, Hansani Hagodagedara¹, Thushan Gooneratne¹, Rezni Cassim¹

¹*Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction: Aortic dissection is a life-threatening vascular emergency. Clinical outcomes depend on early diagnosis, anatomical extent, and timely selection of proper treatment. Case series of aortic dissection in Sri Lankan vascular units are limited.

Methods: A retrospective observational case series was conducted including patients diagnosed with aortic dissection at a tertiary care vascular center.

Results: 16 patients with radiologically confirmed aortic dissection were identified. The mean age was 55.31 (38-71) years and 12 (75%) were male. At presentation acute chest pain was present in 75% abdominal pain/discomfort in 18.75% and limb weakness in 18.75%. One (6.25%) case was incidentally detected. CT angiography showed Type B dissection in 75%, one (6.25%) case of Type B with proximal extension to the ascending aorta and remainder (18.75%) with proximal extension without the involvement of the ascending aorta. Distal iliac extension was seen in 56.25%. Management included exclusive medical therapy in eight (50%), Thoracic Endovascular Aortic Repair (TEVAR) with debranching/bypass in two (12.5%), extra-anatomical bypass in one (6.25%) while one (6.25%) currently awaits TEVAR. Two (12.5%) were suspected for leaking in CT of whom one died before intervention and the other showed no leaking in the subsequent scans; therefore, intervention was abandoned. One (6.25%) case underwent ascending aorta graft repair. 14 (87.5%) survived. One (6.25%) developed a Type I endo-leak following TEVAR.

Conclusion: This series highlights varied presentations, anatomical patterns, and management strategies in Type B aortic dissection. Larger multicenter studies are needed to adequately evaluate outcomes.

Evaluation of the diagnostic accuracy of the Alvarado score in adult patients with suspected acute appendicitis undergoing appendicectomy

Bandara WMSS¹, Abeysinghe AHMCD¹, Atapattu AMGN¹, Bandara KKKS¹, Bandara KRMK¹, Bandara RMST¹, Dalawella DHKMP¹, Wickramasinghe ND¹

¹*Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

Introduction and objectives: The Alvarado score is used for the clinical assessment of acute appendicitis; however, evidence on its diagnostic accuracy is variable across different settings, highlighting the need for further local evidence to determine its applicability in the given clinical context. The study aimed at determining the diagnostic accuracy of the Alvarado score in detecting acute appendicitis among patients undergoing appendicectomy in the surgical wards of Teaching Hospital Anuradhapura and Kurunegala.

Methods: A cross-sectional validation study was conducted using secondary data extracted from Bed Head Tickets and histopathology reports of adult patients who underwent appendicectomy from May to September 2025. Consecutive sampling was applied. Sociodemographic data, clinical features, laboratory findings, and Alvarado scores were collected using a structured extraction sheet. Histopathology was used as the reference standard. Sensitivity, specificity, positive and negative predictive values (PPV, NPV) were calculated with 95% confidence intervals.

Results: Data from 92 patients were analysed, of whom 47 (51.1%) were male. The mean (SD) age was 34.2 (15.0) years. Histological evidence of appendicitis was present in 76 patients (82.6%). At an Alvarado score cut-off of 7, sensitivity was 71.0% (59.5-80.9), specificity 56.2% (29.9-80.2), PPV 88.5% (91.3-93.2), and NPV 29.0% (18.9-41.7). At a cut-off of 5, sensitivity increased to 94.7% (87.1-98.6) while specificity decreased to 31.2% (11.0-58.7); PPV and NPV were 86.7% (82.4-90.1) and 55.6% (27.4-80.6), respectively.

Conclusion: At a lower cut-off, the Alvarado score showed high sensitivity but limited specificity, identifying most suspected cases. A higher cut-off improved specificity, reducing false positives, but decreased sensitivity.

PP030

Impact of waiting list for laparoscopic cholecystectomy – When is the best?

Epitawala EAIK¹, Gobinath S¹, Tillakaratne MSB¹, Siriwardana RC¹

¹*Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya*

Background: Laparoscopic Cholecystectomy is one of the most common surgical procedures hence leading to large caseloads and waiting times. Impact of waiting times has been poorly studied.

Methods: 150 consecutive patients who underwent elective Laparoscopic Cholecystectomy were prospectively evaluated. Data was extracted regarding demographics, initial surgical indication, stone size, diabetic status and preoperative biochemical markers (CRP, ALT, AST). The primary endpoint was symptom recurrence during the interval between surgical listing and the date of operation.

Results: Median wait time of 150 patients was 113 days (Range 53-186 days), 27.3% (n=41) had disease recurrence while waiting. There were 15 recurrent cholecystitis (24.2%), 18 Biliary colic (25%) and 3 pancreatitis (60%). Recurrence group had a longer mean waiting time compared to those who did not (229.7 vs 124.9 days, $p < 0.0001$). The rate of recurrence was 12.0% at 0-3 months, 21.4% at 3-6 months and 27.3% at 6-9 months. Beyond 9 months the recurrence rate rose up to 80.0%. Initial presentations with gallstone pancreatitis (60.0%) and Choledocholithiasis (42.95%) had a higher recurrence rate than those with Biliary Colic (25.0%). Smaller stones (<10mm) had a higher recurrence rate (30.6%) compared to larger stones (>10mm) (18.6%). Initial raised biochemical markers or diabetics were not statistically significant in developing recurrence.

Conclusion: Waiting beyond 9 months for cholecystectomy significantly raised the recurrence. It was associated more with small stones and having pancreatitis as presentation.

Antibiotic Prophylaxis Practices in Inguinal Hernia Mesh Repair: A Single Centre Experience

Abeywickrama RP¹, Kumarasinghe JPM¹, Seneviratne RWS¹, Kommilage DS¹

¹ *Department of Surgery, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

Introduction: Inguinal hernia mesh repair is a common surgical procedure where the routine use of Antibiotic Prophylaxis (AP) remains controversial. This study evaluated AP practices and Surgical Site Infection (SSI) rates at a tertiary care center in Sri Lanka.

Methods: A retrospective study was conducted at the University Surgical Unit, National Hospital Galle, involving 90 adult patients who underwent elective open (Lichtenstein) or laparoscopic transabdominal preperitoneal (TAPP) mesh repair. Data on demographics, comorbidities, antibiotic regimens, and postoperative outcomes were collected from medical records between November 2023 and November 2025.

Results: The majority of patients were male (96.7%) with a mean age of 57.3 years. Open repair surgery was performed in 70% of cases. Despite guidelines recommending single-dose or no prophylaxis, 83.3% (n=75) of patients received multi-dose antibiotic regimens. Only 10% received a single intravenous dose intraoperatively, and 6.7% received no antibiotics. The overall SSI rate was 3.3% (n=3), all of which were superficial incisional infections. Notably, all SSIs occurred in the multi-dose group, while no infections were recorded in the single-dose or no-antibiotic groups. Statistical analysis showed no significant association between the AP regimen and SSI incidence.

Conclusion: This study indicates that multi-dose antibiotic regimens offer no additional benefit over single-dose or no antibiotics in preventing SSIs following inguinal hernia repair. Adherence to single-dose protocols outlined in local and international antibiotics guidelines is recommended to maintain surgical safety, reduce healthcare costs, and improve antimicrobial stewardship.

Changing Trends in Hepatocellular Carcinoma Demographics Over Twelve Years at a Tertiary Referral Centre in Sri Lanka

Tillakaratne MSB¹, Tennakoon K¹, Appuhamy C¹, Niriella M¹, Dassanayake U¹, Gunetilleke B¹, Withanage R¹, Siriwardana RC¹

¹*Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Hepatocellular carcinoma (HCC) represents a significant and evolving health burden in Sri Lanka. This study examines shifting demographic and clinical characteristics of HCC patients across two consecutive time periods at a single tertiary referral centre.

Method: Prospectively collected data were analysed from two eras: Era 1 (2013–2019, n=526) and Era 2 (2020–2026, n=487). Demographics, comorbidities, mode of presentation, cirrhosis prevalence, tumour morphology, and management were compared using Chi-square and Mann–Whitney U tests.

Results: Male predominance was stable (86.6% vs. 85.0%). Median age at diagnosis increased from 64 (IQR:58–70) to 66 years (IQR:60–72). Surveillance-detected cases nearly doubled (12.3% to 24.3%) and incidental detections rose (13.3% to 22.8%), while symptomatic presentations declined (32.3% to 26.2%). Diabetes prevalence was comparable (63.8% vs. 61.4%). Cirrhosis on contrast-enhanced computed tomography (CECT) was more frequent in Era 2 (69.5% vs. 77.7%). Mean tumour diameter fell from 6.8±4.8 cm to 3.8±3.6 cm. Single nodular morphology increased (43.5% to 53.5%), while multiple bilateral (22.2% to 11.9%) and diffuse patterns (14.2% to 6.9%) declined. Management shifted: microwave ablation (MWA) rose from 0.3% to 36.6%; surgical resection remained stable (19.3% vs. 18.5%); Transarterial chemoembolization (TACE) declined (35.1% to 16.6%); targeted therapy emerged (0% to 2.2%); palliative management increased (3.6% to 14.6%).

Conclusions: HCC patients now present at an older age with smaller tumours, reflecting improved surveillance-driven early detection and enabling greater utilisation of minimally invasive ablative therapies. Expanding and sustaining surveillance programmes is essential to continue this positive trajectory in HCC outcomes.

Paratesticular Leiomyosarcoma: The First Reported Case From Sri Lanka

Sallay NS¹, Dayaratne T¹, Ariyaratne HLDS²

¹Colombo South Teaching Hospital, Kalubowila

²National Hospital of Sri Lanka, Colombo

Introduction and Objectives: Paratesticular leiomyosarcoma is a rare soft tissue sarcoma arising from mesenchymal structures of the spermatic cord, epididymis, or testicular tunics. It accounts for a small proportion of intrascrotal malignancies and often presents as a painless or slowly enlarging scrotal mass. Due to its rarity and nonspecific clinical features, diagnosis is frequently delayed. We report a rare case of paratesticular leiomyosarcoma and highlight the diagnostic and therapeutic challenges associated with this uncommon malignancy.

Method: A 68-year-old male presenting with a progressively enlarging left-sided scrotal swelling was evaluated. Clinical findings, laboratory investigations, radiological imaging, operative findings, histopathological features, immunohistochemical staining patterns, and postoperative outcomes were reviewed.

Results: The patient presented with a nine-month history of progressively enlarging tender left hemiscrotum. Ultrasonography demonstrated a hypoechoic septated extratesticular mass, while the testis and epididymis were visualized separately. Serum tumour markers were within normal limits. Cross-sectional imaging showed no evidence of metastatic disease. A left high inguinal orchidectomy was performed. Histopathological examination revealed a malignant spindle cell neoplasm exhibiting marked nuclear atypia, frequent mitotic activity, and tumour necrosis. Immunohistochemistry demonstrated positivity for smooth muscle actin and desmin, confirming leiomyosarcoma. Surgical margins were negative, and no lymphovascular invasion was identified. The patient remains disease-free during follow-up.

Conclusions: Paratesticular leiomyosarcoma should be considered in the differential diagnosis of extratesticular scrotal masses. Histopathological and immunohistochemical evaluation are essential for definitive diagnosis. Early radical surgical excision remains the cornerstone of management and may achieve favourable oncological outcomes.

Keywords: Paratesticular leiomyosarcoma, hydrocele, scrotal mass, soft tissue sarcoma

Epididymal cystadenocarcinoma masked by a giant hydrocele: a diagnostic challenge

Sallay NS¹, Ariyaratne HLDS², Isthiyak ARM¹

¹*Colombo South Teaching Hospital, Kalubowila*

²*National Hospital of Sri Lanka, Colombo*

Introduction and Objectives: Epididymal cystadenocarcinoma is an extremely rare malignant neoplasm, with only a few cases reported in the literature. Its presentation is often nonspecific and may mimic benign scrotal conditions, resulting in delayed diagnosis. We report a rare case presenting as a giant hydrocele that obscured the underlying malignancy.

Method: A case of a 52-year-old male with progressive enlargement of the left hemiscrotum was evaluated. Clinical findings, radiological imaging, operative findings, histopathological characteristics, and follow-up outcomes were reviewed.

Results: The patient presented with a one-year history of increasing left scrotal swelling. Clinical examination suggested a large hydrocele, precluding palpation of the testis. Ultrasonography demonstrated a fluid-filled sac with an irregular mural lesion, while contrast-enhanced computed tomography revealed a localized enhancing mass without evidence of metastatic disease. Serum tumour markers were within normal limits except for elevated lactate dehydrogenase. Radical inguinal orchidectomy was performed. Histopathological examination demonstrated a tubulopapillary neoplasm arising from the epididymis with focal local invasion. Immunohistochemistry confirmed epithelial differentiation and hormone receptor positivity, establishing the diagnosis of epididymal cystadenocarcinoma. Surgical margins were clear, and no lymphovascular invasion was identified. The patient remained disease-free at one-year follow-up.

Conclusions: Epididymal cystadenocarcinoma may present deceptively as a hydrocele, masking an underlying malignancy. Persistent or atypical scrotal swellings warrant careful clinical assessment and appropriate imaging. Histopathology and immunohistochemistry remain essential for definitive diagnosis, while early surgical intervention is associated with favourable outcomes.

Health-Related Quality of Life and Self-Care Knowledge Among Patients with Diabetic Foot Ulcers in the Surgical Units of Colombo North Teaching Hospital

Hayesha WAH¹, Herath AHMLC¹, Herath HMCK¹, Herath HMHM¹, Herath HMJM¹

¹*Faculty of Medicine, University of Kelaniya, Sri Lanka*

Introduction and Objectives: Diabetic foot ulcers (DFUs) develop in 10–15% of patients with type 2 diabetes at some point in their lives, and they affect patients' physical, mental, and social well-being. Adequate knowledge of self-care management (SCM) is essential for effective DFU management. Understanding patients' knowledge and self-care practices is important for planning preventive diabetic foot care services. Our study aimed to describe the health-related quality of life (HRQOL) and assess self-care management (SCM) knowledge among patients with DFUs in the surgical units of Colombo North Teaching Hospital (CNTH).

Method: A descriptive cross-sectional study included all patients over 18 years with one or more DFU, attending surgical units of CNTH over one month. Interviewer-based questionnaires were used to collect data. The Cardiff Wound Impact Questionnaire (CWIQ) and modified SF-36 were used to assess HRQOL and SCM knowledge, respectively. The data was analysed using SPSS-version-29.

Results: The study included 77 patients (mean age 62 years), 50.6% (n=39) were males, and 67.5% had diabetes >10 years. Most participants (77%) had fasting blood glucose levels >126 mg/dL. Daily foot examinations and washing were done by 43% and 86%, respectively. 52 % walked barefoot. Slippers were the most common footwear (69 %). Only 16 % used customised footwear. Nearly half attended SCM sessions or read handouts but were unaware of protective footwear. The mean CWIQ score was 72.1 (SD 11.6), indicating a severe negative impact on quality of life.

Spearman's correlations showed positive links between physical (0.86), social (0.76), and mental (0.57) well-being and total Quality of Life (all $P < 0.001$).

Conclusion: Diabetic foot ulcers have a negative impact on HRQOL. Despite exposure to foot-care education, adherence to recommended self-care practices remains suboptimal. Therefore, interactive and practical educational sessions on SCM at primary care level may be beneficial.

Cytology -Histology correlation of the Bethesda category III thyroid nodules; A clinical audit from a tertiary care centre in Sri Lanka.

Abeygunawardhana D.K.¹, H.A.S. Perera¹, Rajapakse M.M*¹

¹*Department of Histopathology, National Hospital, Galle, Sri Lanka.*

Introduction – Bethesda System (BC) is the currently widely accepted classification system for reporting of thyroid fine-needle aspiration cytology (FNAC). Among the six Bethesda Categories (BC), BC III category includes atypia of undetermined significance (AUS)-nuclear atypia and AUS -other. It includes follicular, lymphoid or other cells with architectural and/or nuclear atypia that is insufficient to be escalated in to BC IV or BC V. BC III is a heterogeneous group and the risk for malignancy is difficult to determine as only a sub-set of patients undergoes surgery.

Methods: A retrospective review was performed in 62 total/hemithyroidectomy specimen which were received during from 01.01.2023-31.12.2025 to the department of histopathology. Nodules, which were offered a pre-operative, ultrasonography guided /non-guided cytological diagnosis of BC III were selected and correlated with the final histological diagnosis.

Results: Eight specimen (12.9%) revealed malignancies including follicular carcinomas and Oncocytic carcinomas. Follicular adenomas accounted for 9.6% (n=6). Oncocytic adenomas contributed for 3.2% (n=2). Hyperplastic nodules were comprised of 35.4 %(n=22). Colloid nodules or colloid nodules with focal hyperplastic areas were seen in 27.4% (n=17). Rest showed evidence of autoimmune or lymphocytic thyroiditis.

Discussion and conclusion: Results of this study shows, the majority of the cytologically BC III diagnosed nodules were histologically benign, while 12.9% of the BC III nodules were histologically malignant. However, papillary thyroid carcinoma, medullary carcinoma, anaplastic carcinoma or NIFTP were not detected in this study, probably due to small sample size. A multicentre, collaborative study with larger sample sizes would be more informative.

Medicolegal Assessment of a Sharp Force Cut to the Neck in a Survivor

Haroon AM¹

¹*Department of Forensic Medicine & Toxicology, Faculty of Medicine, University of Colombo*

Introduction and Objectives: Cuts to the neck account for approximately 3-5% of assaults carrying high risk due to the density of vital structures - where even superficial cuts may threaten life. This case examines the medicolegal assessment of a 50 year woman who sustained cut to the anterior neck, highlighting anatomical knowledge, clinical observation, forensic reasoning. Objective was to assess risk, document findings, determine the appropriate classification of hurt under Section 311 of the local Penal Code.

Method: Hospital medicolegal evaluation was performed post assault. Clinical records, operative notes, surgical findings, ENT input were reviewed. Examination focused on vascular compromise, airway risk, muscle cuts, with documentation of both positive and negative findings. Limitations arose from incomplete early transfer records, which lacked pulse, blood pressure, initial injury details, affecting assessment of early hemodynamic status.

Results: Partial cut of the sternocleidomastoid muscle and external jugular vein was observed. Patient had brisk bleeding but remained hemodynamically stable, no blood transfusion was required. Direct assessment of deeper structures was limited, which would require postmortem layer by layer dissection if the victim had not survived. Risk to carotid arteries, airway, and cervical nerves was considered. The cut was classified as grievous hurt under limb (h) of penal code because surgical intervention was required to control bleeding and repair structures.

Conclusions: This case highlights the importance of correlating anatomy, operative findings, clinical status in forensic evaluation of sharp trauma. Transparent reporting, acknowledgment of documentation limitations, and ethical practice ensure accurate medicolegal classification, guiding both clinical and forensic practice.

Life Threatening Anaphylaxis and Stress Cardiomyopathy Following Non Grievous Assault A Medicolegal Perspective

Haroon AM¹

¹*Department of Forensic Medicine & Toxicology, Faculty of Medicine, University of Colombo*

Introduction and Objectives: Minor assault injuries gain medicolegal significance when subsequent medical complications endanger life. We report a 61 year male with superficial abrasions from blunt assault who developed acute anaphylaxis and Takotsubo cardiomyopathy after prophylactic Augmentin, highlighting causation, documentation, and ethical challenges in forensic evaluation.

Method: Hospital records, clinical findings, laboratory, imaging results, and Medico Legal Examination Form(MLEF) documentation were reviewed. Temporal sequence, causal links, and adherence to standard care were analysed to determine legal classification and assess physiological impact.

Results: Initial assessment revealed multiple abrasions and contusions without fractures or internal trauma, categorised as non grievous under Section 311. Within thirty minutes of Augmentin, the patient developed hypotension, tachycardia, bronchospasm and generalised urticaria. Resuscitation included three intramuscular adrenaline doses, high flow oxygen, intravenous fluids, antihistamines and nebulised bronchodilators. Adrenaline, though the drug of choice for anaphylaxis, can precipitate cardiac function changes such as Takotsubo cardiomyopathy. ECG showed dynamic ST-T changes, troponin I rise and echocardiography revealed apical ballooning with preserved coronaries, confirming Takotsubo cardiomyopathy. Causal analysis confirmed a but for link: assault prompted hospitalisation and antibiotic exposure, triggering life threatening iatrogenic events. Clinical management adhered to standard care and the reaction was unpredictable. MLEF documented primary injuries, secondary complications, and chronological sequence, maintaining objectivity without attributing fault.

Conclusions: A minor assault transformed into a life threatening event due to an iatrogenic complication. Comprehensive documentation, rigorous causation analysis, ethical neutrality are critical in medicolegal evaluation. Indirect but temporally related events may elevate legal injury classification while upholding medical standards.

An assessment of caregivers' knowledge, attitudes, and practices regarding child abuse in Sri Lanka

Muthulingam T¹, Thivaharan Y², Wijayawardhana KWSM³, Kitulwatte IDG⁴

¹*Judicial Medical Officer's Office, Colombo South Teaching Hospital, Kalubowila.*

²*Department of Forensic Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

³*Department of Anatomy, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

⁴*Department of Forensic Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

Introduction & Objectives:

Child abuse continues to be a serious yet insufficiently recognized problem in Sri Lanka, where caregivers act as the primary point of identification and reporting. However, caregivers have limited awareness of abuse types, legal processes, and long-term consequences. This study evaluated the knowledge, attitudes, and practices of caregivers of abused children, focusing on the identification, management, and prevention of child abuse.

Methods:

A descriptive cross-sectional study was conducted among 384 caregivers attending two major teaching hospitals in Sri Lanka. An interviewer-administered questionnaire assessed caregivers' knowledge, attitudes, and practices regarding child abuse, its management, and prevention.

Results:

Although 57.6% of caregivers rated their knowledge of child abuse as adequate, actual understanding varied considerably. Recognition of abuse perpetrated by strangers was high (95.1%), whereas only 52.7% correctly identified intrafamilial sexual abuse. Awareness of the long-term psychological consequences of abuse was limited. While 45.3% reported they would notify authorities following the first incident of abuse, many preferred to warn the perpetrator first (50.8%) or report only when the offender was not a family member (45.6%). Higher educational attainment was significantly associated with better knowledge, attitudes, and practices ($p < 0.05$). Institutional caregivers and legal guardians demonstrated higher overall scores than biological parents.

Conclusions:

Caregivers readily recognized obvious forms of abuse but showed important deficiencies in identifying intrafamilial abuse, understanding its long-term consequences, and responding appropriately through reporting and medico-legal procedures. Community-based caregiver education, school-based awareness programmes, and practical training are needed to strengthen knowledge, improve attitudes, and promote appropriate reporting practices.

PP040

Fatalities from Illegal Electrification used for Animal Deterrence in Sri Lanka: A Case Series

Ekanayake EMKB^{1,2}, Vadysinghe AN¹, Izzath MHMA², Senasinghe DPP², Siddique S¹, Sanjaya B¹, Kumarasinghe WGGB¹, Wickramasinghe CU¹

¹*Department of Forensic Medicine, Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka*

²*National Hospital, Kandy, Sri Lanka*

Introduction: Illegal electrification using improvised systems to deter wild animals on farmlands, in jungles, and in household environments is a hazardous practice in Sri Lanka.

Case Presentations: A 61-year-old male was found dead in a brinjal plantation with electric burns on the lower limbs after contact with a solar-powered wire. A 75-year-old female died after tripping over an electrified wire in a paddy field, installed by a neighbour to trap animals, with electric burns on both ankles. Two partially decomposed male farmers aged 30 and 60 years with electrical injuries were recovered from a stream after allegedly attempting to lay an animal trap wire. A 42-year-old Buddhist monk was electrocuted by a live wire installed in a temple garden to deter monkeys, with a burn injury to the chest. An 11-year-old schoolgirl died after contact with an electrified wire placed on the upper storey of her house for the deterrence of monkeys, with electric burns on the upper limb. A 68-year-old farmer was found dead in a jungle with an electrical burn on the right thigh caused by an animal-deterrent wire. An 83-year-old female sustained burns to the neck and upper limbs after touching an antenna pole electrified to repel monkeys. Histopathological and investigative findings supported low-voltage electrocution in all cases.

Conclusion: Illegal electrification used for animal deterrence represents a preventable cause of death with major public health and medico-legal implications. Public awareness, legal enforcement, and safer alternatives are essential to minimize these fatalities.

Financial Toxicity Among Colorectal Cancer Patients in Sri Lanka: Challenges in a Lower-Middle-Income Country Despite Free Universal Healthcare

D Senanayake¹, J Mithushan¹, U jayarajah¹, G Wimalasena¹, Wijeratne DTW², Gunasekera S³, Booth C², Gyawali B², SA Seneviratne¹

¹*Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Queens University, Ontario, Canada*

³*Apeksha Hospital, Maharagama*

Introduction: Financial toxicity (FT), meaning the adverse financial burden imposed by a cancer diagnosis, affects patients, families, and societies across diverse economic and healthcare systems. Although FT has been extensively studied in high-income settings, its impact in lower-middle-income countries (LMICs) with predominantly free universal healthcare remains underexplored.

Methodology: We conducted a cross-sectional study of 200 patients with stages I-IV colorectal cancer in Sri Lanka, interviewed 6–24 months post-diagnosis. FT was measured using a 5-point scale, and data was collected on direct/indirect costs, coping mechanisms, and healthcare utilization. To examine associations between reported financial burden and various factors, we performed Mann-Whitney U tests.

Results: FT was highly prevalent, with 85% of participants reporting moderate-to-severe toxicity (score $\geq 4/5$). Major contributors included travel costs (77.5%), supportive medications (73.5%), out-of-hospital investigations (73%), and active treatment expenses (65%). Many patients reported compromising basic needs, with 47% reducing food expenditures and 26% cutting education costs. Income loss occurred in 27% of patients, and chemotherapy recipients experienced significantly higher FT ($p=0.03$). Despite free public healthcare, 28% sought private-sector care for part of their treatment. Family support was the primary financial buffer (86%).

Conclusion: Despite a robust public healthcare system, colorectal cancer patients in Sri Lanka face substantial FT, often sacrificing basic needs to afford care. The reliance on private services highlights systemic gaps in accessibility or quality of free care. Targeted policies such as subsidizing ancillary costs (i.e., transport, medications) and strengthening public oncology services are urgently needed to mitigate FT in LMICs.

Factors Associated with Quality of Life Among Female Breast Cancer Patients: A Cross-Sectional Study at a Tertiary Cancer Referral Centre in Sri Lanka

Ziya ZDZH¹, Chandraratne NH¹, Perera PRK¹, Marasinghe MTN¹, De Silva AIA¹, Vidanapathirana DM², Seneviwickrama KLMD^{3,4}

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

²*Department of Pathology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

³*Centre for Cancer Research, University of Sri Jayewardenepura, Sri Lanka*

⁴*Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

Introduction and Objectives: Breast cancer is the commonest cancer in Sri Lanka imposing significant burden on the healthcare system. Identification of issues related to Quality of life (QoL) in these patients remain important in building resilient, patient-centred health systems. This study aimed to determine the factors associated with QoL among female breast cancer patients receiving treatment at a tertiary cancer referral centre in Sri Lanka.

Methods: A descriptive cross-sectional study was conducted among 360 systematically sampled female breast cancer patients at the National Cancer Institute using validated, interviewer-administered EORTC QLQ-C30 and QLQ-BR23. QoL cut-offs were <33.33 ('Poor'), 33.33–66.66 ('Moderate') and >66.66 ('Good'). Data was analysed via SPSSv27 using independent sample t-test ($p < 0.05$)

Results: Participants were predominantly ≥ 50 years (67.22%), married (83.06%), unemployed/retired (81.67%) and lived in rural areas (66.94%). QoL was significantly associated with lower financial burden ($p < 0.001$), satisfactory support from family ($p = 0.007$) and friends ($p < 0.001$), high religious coping ($p < 0.001$), less social pressure regarding appearance ($p < 0.001$), surgery alone as treatment ($p < 0.045$), managed as an out-patient ($p < 0.001$), and diagnosis within the last 6 months ($p < 0.003$). Age ($p = 0.979$) and residential area ($p = 0.407$) failed to show an association.

Conclusions: Lower financial burden, stronger family and friend support, better religious coping, reduced appearance-related social pressure, and less invasive treatment were linked to better QoL, while age and residential area were not significant determinants. Strengthening financial support systems, psychosocial interventions, coping strategies, and promoting appropriate outpatient-based care may help improve overall patient outcomes.

Comparison of Lymph Node Harvest in Laparoscopic vs. Open Colorectal Cancer Resections

Dissanayake PG¹, Wickramasinghe DP¹, Perera MPM¹, Wannakuwatte RA¹, Wickramasinghe DG¹

¹ *Department of Surgery, Faculty of Medicine, University of Colombo*

Introduction and Objectives: Adequate lymph node (LN) harvest is a critical quality indicator for oncological staging and prognosis in colorectal cancer (CRC) surgery. This study aims to evaluate if the laparoscopic approach provides a nodal harvest comparable to traditional open surgery.

Methodology: A retrospective analysis was conducted on 84 patients who underwent CRC resections from 2024 to 2026 in a tertiary care hospital. Variables analysed included patient demographics, tumour location, surgical approach (laparoscopic vs. open), LN harvest and pathological nodal status. Statistical significance for nodal harvest between the types of surgical approach was assessed using Pearson Chi-Square test.

Results: The study included 50 males (59.5%) and 34 females (40.5%), with a mean age of 61.54 years (SD $\pm$ 11.72). There was a left-colon predominance with 35 (41.7%) cases, while tumours in rectum and right colon accounted for 25 (29.8%) and 24 (28.6%) respectively.

Forty-seven procedures (56.0%) were open and 37 (44.0%) were laparoscopic. The mean LN harvest was 11.82 (inter quartile range:6-16). Pathological N-stage distribution varied with 2 (2.4%) Nx cases, 41(48.8%) N0 cases, 22 (26.2%) N1 cases and 19 (22.6%) N2 cases.

Comparison of LN harvest showed that 51.1% of open cases achieved adequate LN harvest ($\geq$ 12) compared to, 48.6% of laparoscopic cases, however this difference was not statistically significant ($\chi^2=0.048$, $p=0.826$).

Conclusions: No statistically significant difference in adequate lymph node harvest was observed between laparoscopic and open surgery for CRC resection. These findings are consistent with laparoscopic surgery achieving comparable lymph node yield to open surgery, supporting its continued use as a safe alternative to open surgery.

Two Unusual Clinical Presentations of Metastatic Deposits of Follicular Thyroid Carcinoma

Abeygunawardhana D K¹, Rajapakse M M¹, Amaraweera P¹, Perera H A S¹

¹Department of Histopathology , National hospital-Galle, Sri Lanka

Introduction:

Thyroid carcinomas are the commonest endocrine malignancy in the world. Vast majority of thyroid malignancies are originated from follicular epithelial cells that form greater part of the gland. Incidence of metastasis in Follicular thyroid carcinoma has been reported to be 6–20%. Bones and lungs are the most frequent sites of distant metastasis. However soft tissue involvement in face is rare.

Case report:

Case1: A 61-year male previously diagnosed with follicular thyroid carcinoma 13 years back ,presented with a painless right side cheek lesion. USS revealed a highly vascular radiologically enhancing lesion. Histological evaluation of the cheek lesion revealed metastatic deposit of a follicular thyroid carcinoma. Immunohistochemical evaluation done with TTF1 and it confirmed diagnosis of metastatic deposit of a follicular thyroid carcinoma.

Case2: A 69 year old previously healthy lady presented with R/cheek lump with tinnitus. MRI showed a lobulated soft tissue mass involving right masticator and infratemporal region with right parotid gland. Imprint cytology from temporal lesion showed repetitive follicles formation and frozen section showed thyroid tissue. Immunohistochemistry performed on histology section revealed TTF1 positivity confirming metastatic deposit of follicular thyroid carcinoma.

Discussion: There are very few case reports in the literature of follicular thyroid carcinoma metastasizing to face. Tumour invasion occurs by extension into blood vessels, and early spread via the hematogenous route, numerous processes have been implicated in fostering metastasis. These include epithelial-mesenchymal transition, cancer stem cells, cytokines, and receptor tyrosine kinase (RTK) pathways. So, follicular carcinoma is a one of the main differential diagnosis for a vascular lesions in face with malignant behaviour.

Clinical Profile and Pattern of Aeroallergen Sensitization Among Children with Allergic-Rhinitis Attending a Tertiary Care Center in Sri Lanka

Suriapperuma TNP^{1,2}, Wadasinghe D³, Badanasinghe CN⁴

¹Colombo North Teaching Hospital, Ragama, Sri Lanka

²Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka

³Department of Physiology, Faculty of Medicine, University of Kelaniya, Sri Lanka

⁴Department of Medical Microbiology and Immunology, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction and Objectives: Identification of aeroallergen-sensitization in allergic-rhinitis is important for allergen avoidance and planning immunotherapy. This study describes the clinical-profile, aeroallergen sensitization patterns, and associated factors among children with allergic-rhinitis attending a tertiary-care center in Sri Lanka.

Methods: A cross-sectional descriptive study was conducted among children diagnosed with allergic-rhinitis. Demographic and clinical data were collected using questionnaires, and skin-prick testing was performed for 13 aeroallergens.

Results: A total of 160 children were included. The mean age was 9.0 ± 3.1 years and 60.6% were males. Moderate-to-severe allergic-rhinitis was present in 88.1%, while 49.4% had perennial allergic-rhinitis. Coexisting asthma was identified in 71.9% and allergic rhino-conjunctivitis in 55%, predominantly among children older than five years. Common symptoms included sneezing, rhinorrhea, nasal obstruction, and nasal itching. Sleep disturbance and impairment of school and daily activities were frequently reported.

House-dust-mite and storage-mite sensitization were the predominant aeroallergens, each identified in 93.8% of children, while cockroach sensitization was present in 61.9%. Sensitization to animal-dander was less common: dog 21.3%, cat 20.6%, and rat 20.6%. Bermuda grass and ragweed sensitization were observed in 13.8% and 10%, respectively, while fungal sensitization was relatively uncommon, with aspergillus and penicillium positivity observed in 8.1% and 7.5% respectively. House-dust-mite and storage-mite sensitization were significantly more common in children older than five years ($p=0.007$ and $p<0.001$). Polysensitization (≥ 3 allergens) was significantly associated with age >5 years ($p=0.038$).

Conclusions: Sri Lankan children with allergic-rhinitis demonstrate a high-burden of moderate-to-severe disease, with mite sensitization predominating, highlighting the importance of environmental-control and allergen-specific-immunotherapy.

Association of Indoor PM_{2.5} Exposure and Cooking Fuel Type with Quality of Life among Pregnant Women in Kandy and Colombo, Sri Lanka

Kariyawasam KHAY^{1,6}, Thilakarathna HMCRC^{2,6}, Jayasinghe JMDC^{1,3}, Karunarathne CB^{1,3}, Priyanga P¹, Manomi K.A.N¹, Madusschica R¹, Kumarasiri O.K.D.V.T², Rishadha M.R.F², Kumaranathunga P.N.D², Wijayasinghe W.A.D.H.M², Chandrasekara C.M.J.C², Kaththiriarachchi L.S¹, Dissanayake P², Bowatte G², Waidyasekera H¹, Goonewardena CSE¹, Amarasekara AATD¹, Lin C⁵, Schwarze J⁵, Madegedara D³, Yasaratne D², Wimalasekera SW¹

¹University of Sri Jayewardenepura, Sri Lanka

²University of Peradeniya, Sri Lanka

³Wayamba University of Sri Lanka

⁵University of Edinburgh, UK

⁶KIU, Sri Lanka

Introduction and Objective: Indoor air pollution, particularly Particulate Matter < 2.5 μm (PM_{2.5}) from household cooking, is a major health concern for pregnant women. This study examined the association between indoor PM_{2.5} exposure and cooking fuel type with quality of life among pregnant women.

Methods: A descriptive cross-sectional study was conducted among 86 pregnant women in Kandy and Colombo districts. Data was collected using an interviewer-administered questionnaire, and quality of life was assessed using Sinhala validated WHOQOL-BREF. PM_{2.5} concentrations were measured continuously over a 72-hour period using portable TSI BlueSky™ air quality monitors, while household air pollution related activities and exposure patterns were recorded using an activity diary.

Results: The mean age of participants was 29.37±5.49 years. Liquid Petroleum Gas (LPG) was the primary cooking fuel for 68.6% (n=59), while 31.4% (n=27) used biomass fuel. The mean hourly indoor PM_{2.5} concentration was 32.06±19.63 $\mu\text{g}/\text{m}^3$. Compared to LP gas, biomass fuel use was associated with an increase of 11.22 $\mu\text{g}/\text{m}^3$ in hourly PM_{2.5} levels (95%CI:2.56 to 19.88, p=0.013). Mean QOL was moderate across physical (69.19±14.75), psychological (71.46±14.10), social (70.06±17.42), and environmental (69.64±14.69) domains. Biomass users had significantly lower QOL scores than gas users: physical (p<0.001), psychological (p<0.001), social (p=0.013), and environmental (p=0.001). PM_{2.5} was a significant negative predictor of all four QoL domains: physical (B=-0.332, 95%CI: -0.477 to -0.187, p<0.001), psychological (B=-0.328, 95%CI: -0.465 to -0.191, p<0.001), social (B=-0.234, 95%CI: -0.416 to -0.052, p=0.014), and environmental (B=-0.357, 95%CI: -0.498 to -0.216, p<0.001).

Conclusion: Elevated indoor PM_{2.5}, particularly from biomass fuel use, is linked to reduced quality of life among pregnant women, underscoring the need for cleaner cooking energy and better indoor air quality in Sri Lanka.

Comparison of lung function assessed by spirometry in patients with type 2 diabetes mellitus and prediabetes, and healthy individuals stratified by body mass index - a preliminary Analysis

Samarasinghe SM¹, Katulanda P², Prathapan S³, Amarasiri WADL⁴

¹*Department of Physiology, Faculty of Medicine, University of Moratuwa, Katubedda, Sri Lanka.*

²*Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo 08, Sri Lanka.*

³*Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Gangodawila, Sri Lanka.*

⁴*Department of Physiology, Faculty of Medicine, University of Colombo, Colombo 08, Sri Lanka.*

Background and Objectives: Diabetes mellitus is a multisystem disorder that may impair pulmonary function through mechanisms including microangiopathy and collagen glycation. Although restrictive lung changes have been reported in diabetes, spirometric abnormalities in prediabetes across body mass index (BMI) categories remain insufficiently characterised. This study compared spirometric parameters stratified by BMI among individuals with type 2 diabetes mellitus, prediabetes, and healthy controls.

Methods: This cross-sectional study included 150 adults aged 18–80 years: 50 with type 2 diabetes mellitus, 50 with prediabetes, and 50 healthy controls. Participants were non-smokers without chronic respiratory disease. Glycaemic status was classified using American Diabetes Association criteria. Spirometry, performed according to ATS/ERS guidelines, assessed FVC, FEV₁, FEV₁/FVC ratio, PEFR, and MEF-25, MEF-50, and MEF-75. BMI was calculated from measured height and weight, and group comparisons were analysed using analysis of variance.

Results: The mean age of participants was 45.84 ± 18.70 years. Male: Female 2:1. Most participants with prediabetes and diabetes demonstrated normal spirometry patterns, while obstructive and restrictive patterns were observed in 3 and 8 individuals, respectively, in both groups. Mean FEV₁ was significantly higher in healthy controls (2.93 ± 0.82 L) than in participants with prediabetes (2.24 ± 0.53 L) and diabetes (2.00 ± 0.50 L; $p < 0.001$). Similar significant reductions were observed for FVC (3.48 ± 0.92 , 2.77 ± 0.69 , and 2.44 ± 0.61 L) and the trend is continued in PEFR, MEF-75, MEF-50 and MEF-25. While FEV₁/FVC in diabetics (81.47 ± 7.09) was marginally higher than prediabetics (81.45 ± 7.27) but lower than healthy subjects (83.88 ± 5.36), the difference was statistically insignificant ($p = 0.111$). Significant differences in FEV₁ and FVC were evident among overweight and obese participants but not among those with normal BMI.

Conclusion:

Spirometry parameters appear impaired in individuals with hyperglycaemia, particularly among those with increased adiposity. Further studies are required to describe this association.

Preliminary study: Estimation of stature from selected lower limb bones in a Sri Lankan cadaveric study

Rajapakshe DPWR¹, Perera HTON¹, Perera HVU¹, De Zoysa DTN¹, Dissanayake S¹

¹*Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura.*

Introduction and Objectives Estimation of stature from skeletal remains is an essential component of forensic identification. This study aimed to investigate the correlation between the lengths of selected lower-limb bones and the stature in Sri Lankan cadavers, and to derive population-specific regression equations for stature estimation.

Methods A preliminary cross-sectional study was conducted on 12 adult cadavers (6 males, 6 females) donated for research purposes. Cadaveric stature was measured in the supine position from the most superior point of the vertex to the most inferior point of the heel using a measuring tape. The left femur, tibia, fibula and first metatarsal were disarticulated, and soft tissues and cartilage were removed. Bone lengths were measured between standard anatomical landmarks using an osteometric board. Repeated measurements were obtained independently by multiple observers.

Results The mean stature was 156.74 ± 10.15 cm, while the mean femur, tibia and fibula lengths were 44.10 ± 3.87 cm, 37.08 ± 3.32 cm and 36.75 ± 2.89 cm, respectively. Femur demonstrated the strongest correlation with stature ($r = 0.922$, $R^2 = 0.849$, $p < 0.001$), followed by tibia ($R^2 = 0.808$, $p < 0.001$) and fibula ($R^2 = 0.748$, $p < 0.001$). The femur also produced the most accurate regression model for stature estimation: Stature (cm) = $50.11 + 2.42 \times$ Femur length (cm).

Conclusion Length of femur, tibia, and fibula, in order, are the most reliable lower-limb bones for estimating stature. The derived regression equations may serve as population-specific tools for forensic and anthropological applications, although validation using larger samples is recommended.

Preliminary study: Estimation of stature from selected upper limb bones in a Sri Lankan cadaveric study

De Zoysa DTN¹, Perera HVU¹, Perera HTON¹, Rajapakshe DPWR¹, Dissanayake S¹

¹*Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura.*

Introduction and Objectives Stature estimation from the skeleton is an essential component of forensic investigations. This preliminary study aimed to investigate the relationship between selected upper limb bone lengths and stature in Sri Lankan cadavers and to derive regression equations for stature estimation.

Methods A preliminary cross-sectional study was conducted on 12 adult cadavers (6 males and 6 females) donated for research purposes. Cadaveric stature was measured in the supine position using a measuring tape. Humerus, radius, ulna, 2nd and 3rd metacarpals, and 2nd and 3rd proximal phalanges of the left side were disarticulated, and soft tissues and cartilage were removed. Bone lengths were measured between standard anatomical landmarks using an osteometric board. Repeated measurements were obtained independently by multiple observers.

Results The mean stature was 156.74 ± 10.15 cm, while the mean humerus, ulna and radius lengths were 31.35 ± 2.21 cm, 25.87 ± 2.36 cm and 23.61 ± 2.04 cm, respectively. The ulna demonstrated the strongest correlation with stature ($r = 0.821$, $R^2 = 0.675$, $p = 0.001$), followed by the second metacarpal ($R^2 = 0.663$, $p = 0.001$) and humerus ($R^2 = 0.639$, $p = 0.002$). The ulna also produced the most accurate regression model for stature estimation: $\text{Stature (cm)} = 65.23 + 3.54 \times \text{Ulna length (cm)}$.

Conclusion Ulna, followed by the second metacarpal and humerus, provides the most reliable upper limb predictor of stature in this preliminary Sri Lankan cadaveric sample. The derived population-specific regression equations may assist forensic and anthropological investigations. However, validation using a larger representative sample is recommended.

Patterns and Characteristics of Sexual and Gender-Based Violence Among Perimenopausal Women in Sri Lanka: A Police Record Based Cross-Sectional Study (2013–2021)

Wickramasinghe SW¹, Liyanage KA¹, Perera KSK¹, Dilshara MMS¹, Paranavitana YKS¹, Fernando KRT¹, Balasooriya BMYM¹, Kitulwatte IDG¹, KTAA Kasturiratne², Edirisinghe PAS¹

¹*Department of Forensic Medicine, Faculty of Medicine, University of Kelaniya*

²*Department of Public Health, Faculty of Medicine, University of Kelaniya*

Background: Sexual and gender-based violence (SGBV) remains an important public health issue with medico-legal implications. Although widely studied among younger women, perimenopausal women aged 40–55 years remain underrepresented in SGBV literature. Biological, psychological, and social transitions during this life stage may influence vulnerability to violence. This study aimed to describe the patterns and types of SGBV among perimenopausal women in Sri Lanka.

Methodology: A descriptive cross-sectional study was conducted using police records from 2013–2021 through a Google Form. Descriptive analysis was performed, and frequencies and percentages were calculated to summarize the data. The associations were assessed using the chi-square test.

Results: Of the 593 perimenopausal female victims, most violence was allegedly perpetrated by individuals known to the victim including intimate partners (58.9%), neighbours (18.4%) while strangers accounted for 5.7%. Domestic violence represented more than half of the SGBV reports (53.4%). Psychological or verbal abuse was the most common form of SGBV (40.1%), followed by physical (30.4%) and sexual violence (22.1%). Most incidents occurred in the home or familiar settings. A statistically significant association was observed between the victim perpetrator relationship and the type of violence ($p < 0.001$).

Conclusions: SGBV among perimenopausal women in Sri Lanka predominantly occurs within established interpersonal relationships, and domestic environments. Psychological abuse was the most common form of violence. These findings highlight the need for targeted interventions and increased recognition of SGBV in midlife women, especially within domestic contexts.

Trends and age-specific patterns of childhood and adolescent cancer incidence in Sri Lanka: a national registry analysis (2005–2022)

Jayathilake JHABN¹, Liyanage VDP²

¹ *International Patient Care Unit, Asiri Hospital Kandy, Sri Lanka*

² *Department of Surgery, Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and Objectives: Childhood and adolescent cancer incidence has increased globally, yet long-term epidemiological data from low- and middle-income countries remain limited. This study aimed to describe national trends, age-specific patterns, sex distribution, and common cancer types among children and adolescents in Sri Lanka.

Methodology: A retrospective analysis was conducted using data from the National Cancer Registry of Sri Lanka for individuals aged 0–19 years between 2005 and 2022. Age-specific incidence rates were evaluated for four age groups (0–4, 5–9, 10–14, and 15–19 years). Trends were analysed by age group and sex, while cancer types and mortality patterns were assessed using recent national reports.

Results: Annual childhood and adolescent cancer cases increased from 523 in 2005 to 780 in 2019, peaking at 1,032 in 2021 before declining slightly to 940 in 2022. The sex distribution remained nearly equal, with a mild male predominance. Children aged 0–14 years accounted for approximately 70% of cases, while adolescents aged 15–19 years contributed around one-third. Incidence rates were highest among males aged 0–4 years and females aged 15–19 years, with the latter showing the steepest increase. In 2022, leukaemia was the commonest cancer type (30.9%) and the leading cause of cancer-related mortality.

Conclusions: Childhood and adolescent cancer incidence in Sri Lanka has increased substantially over two decades, with distinct age- and sex-specific patterns. The sustained burden of leukaemia and the rising incidence among adolescents underscore the need for strengthened cancer surveillance, earlier diagnosis, and appropriate oncology services in Sri Lanka.

The Effect of Sleep Quality on Academic Performance among Third-Year Engineering Undergraduates of Selected Universities in the Colombo District

Matharaarachchi VDR¹, Manage ND¹, Meegoda MKDCJ¹, Mahawattage MDPV¹, Kumarasiri APPP¹, Nimsara NHKS¹, Rathnayake AJIS¹, Gamage AU¹

¹*Faculty of Medicine, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka*

Introduction and Objectives: Sleep quality affects cognition, memory and academic performance. This study aimed to determine the association between sleep quality and academic performance among third-year engineering undergraduates in selected universities in Colombo District.

Methods: A descriptive cross-sectional study was conducted from February to October 2024 among 250 third-year engineering undergraduates from KDU, University of Moratuwa, University of Sri Jayewardenepura, NSBM and SLIIT, selected by simple random sampling. Data were collected using a self-administered online trilingual questionnaire including socio-demographic data, a Pittsburgh Sleep Quality Index and self-reported GPA. Descriptive statistics, chi-square tests and odds ratios were calculated using SPSS.

Results: Good sleep quality was reported by 51.6% and poor sleep by 48.4%. Students with good sleep had higher odds of good academic performance (Pass=GPA $\geq$ 2.0) (OR=2.094; 95% CI: 1.262-3.475; p=0.004). High stress was reported by 55.2%; high screen time before sleep by 45.2%; caffeine use before sleep by 48.0%; and heavy meals before sleep by 43.6%. Poor sleep was associated with high stress (OR=4.899), high screen time (OR=14.753), caffeine use (OR=11.443) and heavy meals (OR=1.716); all were statistically significant (p<0.001, except meals p=0.035).

Limitations: Academic performance and sleep quality were self-reported, the cross-sectional design limits causal interpretation, multivariable adjustment for confounders was not performed, and findings may not be generalizable beyond selected universities in Colombo District.

Conclusions: Good sleep quality was positively associated with better academic performance, while stress and modifiable lifestyle factors were associated with poorer sleep.

Anthropometric Study of Foot Morphology to Determine Sex and Stature among Medical Undergraduates of the University of Peradeniya, Sri Lanka

Yahthurshan S¹, Anuradha HAC¹, Ravindu BMT¹, Weerasekara WGVG¹, Yasith KGP¹, Zahra MRF¹, Ekanayake EMKB², Vadysinghe AN²

¹*Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka*

²*Department of Forensic Medicine, Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka*

Introduction and Objectives: Population-specific standards for sex and stature estimation using foot anthropometry are limited for the Sri Lankan population. This study aimed to evaluate the relationship between anthropometric foot measurements, sex, and stature in a Sri Lankan population.

Method: A descriptive cross-sectional study was conducted among 291 medical undergraduates of the University of Peradeniya, aged 17–25 years. Foot length (FL), foot breadth (FB), heel breadth (HB), and bimalleolar width (BMW) were measured and analyzed using IBM SPSS Statistics 26.

Results: The sample comprised 151 males (51.9%) and 140 females (48.1%), with a median age of 22.00 years. FL demonstrated the strongest correlation with stature ($r=0.880$, $p<0.001$). Multiple linear regression analysis showed that foot anthropometric indices explained 77.9% of the variance in stature. FL and BMW were identified as statistically significant predictors of stature. Multiple regression model derived was $S=42.127+4.202(FL)+0.257(BMW)$. Sex-specific regression equations were $S=56.893+3.889(FL)$, for males, and $S=49.611+4.352(FL)$, for females, indicating that FL is the most consistent predictor of stature, irrespective of sex ($p<0.001$). Significant sexual dimorphism was observed in all foot measurements, with males showing significantly greater values than females ($p<0.001$). Binary logistic regression analysis demonstrated strong predictive ability for sex determination, with the model explaining 83.2% of the variance and achieving an overall classification accuracy of 92.4% (92.1% males, 92.9% females).

Conclusion: Foot anthropometric measurements show significant sexual dimorphism and strong correlations with stature among Sri Lankan medical undergraduates. Further studies involving larger, diverse Sri Lankan populations are recommended to improve the applicability of these models.

Alcohol and Substance Use Among Perpetrators of Police-Reported Domestic Violence Cases in Sri Lanka: An Island wide Descriptive Study

Balasooriya BMYM¹, Parnavitana YKS¹, Liyanage KA¹, Perera KSK¹, Dilshara MMS¹, Wickramasinghe SW¹, Fernando KRT¹, Kitulwatte IDG¹, Kasturiratne KTAA¹, Edirisinghe PAS¹

¹*Department of Forensic Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka*

Introduction and Objectives Domestic violence (DV) is a major public health and medico-legal issue. Alcohol and substance use among perpetrators are frequently reported in DV cases, yet detailed island-wide police-based data remain limited. This study aimed to describe characteristics of police-reported domestic violence cases in Sri Lanka with special reference to alcohol and substance use among perpetrators.

Methods A retrospective descriptive study was conducted using randomly selected police records of DV cases reported island-wide from 2013-2021. Data were collected using a structured questionnaire. Variables included perpetrator alcohol/substance use, victim demographics, and medico-legal findings. Violence categories were recoded into major violence domains; Descriptive statistics and chi-square tests were used for analysis.

Results Among the 1,045 selected cases, alcohol/substance related data were available in 983, of which documented alcohol/substance-related history was identified among 818 (83.2%) perpetrators. Most cases involved intimate partner violence (86.9%). Among documented alcohol/substance related cases, verbal violence was the most common (95.4%), followed by psychological (77.9%) violence. Sexual violence was documented in 19.1% of cases. Most cases had progressed to Magistrate Court proceedings (96.6%). A significant association was observed between alcohol/substance related cases and repeated abuse ($p=0.00017$).

Conclusions Alcohol and substance use were frequently associated with police-reported DV, particularly intimate partner violence. Non-physical violence predominated. Strengthening preventive, public health, and medico-legal responses, alongside improved coordination between police and forensic medical services, is essential for addressing alcohol-related domestic violence and supporting justice administration.

Determinants of Conviction in Rape and Statutory Rape Cases: A High Court Convicted Case Analysis from Western Province, Sri Lanka

Perera KSK¹, Liyanage KA¹, Dilshara MMS¹, Paranavitana YKS¹, Wickramasinghe SW¹, Fernando KRT¹, Edirisinghe PAS¹, Kithulwatte IDG¹, Kasturiratne A¹, Patabandige NSMS²

¹ *Faculty of Medicine, University of Kelaniya, Sri Lanka*

² *Faculty of Humanities and Social Sciences, University of Kelaniya, Sri Lanka*

Introduction and Objectives Rape and statutory rape continue to be medico-legal challenges with variability in judicial outcomes. Understanding the factors behind convictions can help improve legal and forensic practice. The purpose of this study is to assess conviction rates and identify key determinants influencing judicial outcomes of statutory rape and rape cases adjudicated in the Western Province High Courts.

Methods A retrospective analytical study was conducted on 140 concluded High Court cases. Data was extracted on type of offense, relation between victim and accused, strength of evidence, and timing of reporting. Conviction was the main outcome variable. Associations were analyzed using statistical tests of significance.

Results Overall, 66.4% of cases resulted in convictions. The offence involved in 91.4% of cases was statutory rape. Reporting delay was significantly associated with conviction ($p=0.018$), with higher conviction rates in immediately reported cases (82.6%), compared to early (59.5%) and delayed reports (57.9%). There was also a marginally significant association in victim-assailant relationship ($p=0.065$), with higher conviction rates seen among neighbors (84.6%) and intimate partners (69.7%). Strong evidence was found in 85.0% of the cases; however, the strength of evidence ($p=0.845$) and type of offence ($p=0.535$) were not significant predictors

Conclusions Prompt reporting is a key determinant of conviction in rape. The lack of association between strong evidence and conviction highlights potential gaps in judicial interpretation or evidentiary utilization. Promoting early reporting, strengthening legal process may improve better case outcomes.

“We never thought about how to put a price on our pain and suffering”; Patients’ Perceptions and Challenges on Valuing Intangible Cost Associated with Cutaneous Leishmaniasis in Rural Sri Lanka: A Qualitative Study

Lalani JMG^{1,2}, Agampodi TC¹, Prasanna RPIR², Agampodi SB¹, Wickramasinghe ND¹

¹ *Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

² *Faculty of Social Sciences and Humanities, Rajarata University of Sri Lanka*

Introduction and objective: Cutaneous Leishmaniasis (CL) is an endemic neglected tropical disease in Sri Lanka with limited evidence on intangible cost (IC). This study explored CL patients’ perspectives and methodological challenges in monetizing IC in the rural Sri Lankan context.

Methods: In-depth interviews with CL patients attending three dermatology clinics in Anuradhapura were conducted using maximum-variability sampling. We used open-ended questions to explore major IC experiences and three methods of questioning for monetizing IC: 1) assigning a monetary value, 2) willingness to pay (WTP), and 3) comparison with daily costs. Responses were thematically analyzed.

Results: Thirty patients with CL aged 18–81 years participated. Major IC components included treatment-related: physical pain and psychological and emotional suffering, worry about lesions, shame due to bodily appearance, time consumed to cure, and inconvenience attending clinics. Participants found monetizing suffering difficult and unfamiliar, influenced by cultural and religious acceptance and practice of letting go of suffering. Some misunderstood IC by focusing on direct and indirect costs such as medication and productivity loss. Temporary or intermittent treatment pain was another reason for not assigning monetary value, while some considered injection pain too severe to be monetarily expressed. WTP amounts were viewed as subjective; some could express WTP amounts, whereas others believed pain could not be eliminated through payment. Participants struggled to monetize IC, finding it culturally unfamiliar, indicating the limited applicability of conventional valuation methods, particularly WTP approach.

Conclusions: Treatment-related suffering dominated IC in CL, questioning standard monetization approaches within rural Eastern settings and recommending context-sensitive IC assessment methods.

In Silico Repurposing of Antidiabetic Therapeutics for NAFLD: Targeting the IL-6 Inflammatory Axis

Wickramarathne DV¹, Hettihewa LM², Samarasinghe SM², and Faizan M³

¹ Department of Postgraduate Studies, Faculty of Health Sciences, CINEC Campus, Sri Lanka

² Faculty of Health Sciences, CINEC Campus, Sri Lanka

² Department of Postgraduate Studies, Faculty of Health Sciences, CINEC Campus, Sri Lanka

³ School of Science, Amrak Institute of Medical Sciences, Sri Lanka

Introduction: Non-Alcoholic Fatty Liver Disease (NAFLD) and Type 2 Diabetes Mellitus (T2DM) share an intertwined pathophysiology driven by systemic insulin resistance and chronic inflammation. The Interleukin-6 (IL-6) cytokine primarily drives this inflammatory cascade, yet current clinical management relies on isolated monotherapies that frequently fail to neutralize this critical pathway.

Objectives: To computationally repurpose multi-target antidiabetic drug candidates capable of neutralizing the IL-6 inflammatory pathway driving progressive NAFLD in diabetic profiles.

Method: High-throughput thermodynamic modeling (AutoDock Vina) evaluated a curated structural library. Three-dimensional blind docking against the IL-6 cytokine calculated precise binding free energies and identified allosteric modulation sites.

Results: The investigation identified a potent candidate, ChEMBL362588, a documented inhibitor of GSK-3 β , a kinase implicated in severe insulin resistance. This molecule exhibited extreme allosteric affinity for the IL-6 cytokine, achieving a binding free energy of -12.276 kcal/mol. In stark contrast, standard antidiabetic benchmarks (e.g., Acarbose) demonstrated weak anti-inflammatory potential, plateauing at -6.627 kcal/mol. Spatial mapping revealed that ChEMBL362588's bulky hydrophobic scaffold plasters across a biological cage on the IL-6 surface, establishing a formidable steric shield to block localized inflammatory receptor engagement. This thermodynamic stability computationally validates its superiority over monotherapies in halting hepatic inflammation.

Conclusions: This in silico framework reveals critical clinical synergy, demonstrating that multi-target synthetic molecules can simultaneously modulate the insulin-signaling axis and establish a potent IL-6 blockade. Crucially, these findings provide a novel computational blueprint for future in vitro and in vivo research, accelerating the scientific paradigm shift from isolated monotherapies toward multi-target drug discovery. Further studies in a clinical setting are needed to establish utility.

Humanising critical care: a quality improvement initiative for holistic palliative care integration in a resource-limited high dependency unit in Sri Lanka

De Silva AKTN¹, Nagasinghe SU¹, Siraj MI¹

¹*High Dependency Unit, Base Hospital Walasmulla, Sri Lanka*

Introduction and Objectives Palliative care can be delivered alongside curative treatment to improve quality of life. Of 448 admissions in 2025, 75 received concurrent palliative and active care; 55 of 61 deaths received structured support and 20 were de-escalated to ward-based care. No formal framework existed prior to this initiative, which aimed to integrate holistic care and pain management into routine HDU practice.

Method 30 patients and families (40% of palliative caseload) were formally evaluated. Four interventions were implemented: increased family visiting (four to five daily); structured family meetings with treating doctor and consultant; multi-religious spiritual care via clergy visits and supervised outdoor prayer (including patients on vasopressor support); and fulfilment of last wishes, including preferred food orally or via nasogastric tube. Guardian signatures confirmed plan discussion. Staff impact was assessed via anonymous questionnaires (n=12) comparing pre- and post-QI project practice.

Results All 30 families (100%) gave positive feedback. Of 12 staff surveyed, 100% agreed the initiative produced a calmer, more dignified environment; 83% reported improved quality of care; and 100% reported reduced bedside grief reactions compared to pre-QI project practice, with no domain worsened. Family meetings were rated most impactful (42%); visiting frequency was most operationally challenging (50%).

Conclusions Palliative care integration is feasible and well-received in a resource-limited HDU, with measurable improvements in family and staff-reported outcomes. With one in six admissions requiring palliative input, this low-cost, replicable model demonstrates that dignity-centred care is achievable within existing resources. Wider piloting in similar settings is recommended, pending further evaluation of feasibility and outcomes elsewhere.

Prevalence and factors associated with malnutrition among adult cancer patients admitted to Apeksha Hospital, Maharagama, in 2024/25

Mallawaarachchi MSS¹, Madarasinghe HP², Senarathna SATB², Pushpavimala IU¹, Gunasekera HDTS¹, Mallawaarachchi WPPK³, Kaluarachchi V⁴

¹*Apeksha Hospital, Maharagama*, ²*Post Graduate Institute of Medicine, University of Colombo*, ³*Lady Ridgeway Hospital for Children*, ⁴*DGH Moneragala*

Introduction and objectives Malnutrition significantly affects cancer patients' treatment outcomes, survival, and quality of life, yet it remains underdiagnosed in Sri Lanka. This study aimed to determine the prevalence of malnutrition and associated factors in adult cancer patients admitted to Apeksha Hospital, Maharagama.

Method This cross-sectional observational study recruited 380 adult patients with confirmed malignancy through stratified sampling in mid-2024. Patients aged ≥ 18 years with confirmed malignancy were surveyed using sociodemographic, food-related, and malignancy-related questionnaires administered by interviewers, along with anthropometric measurements (weight, height, mid-upper arm circumference), assessments of nutritional symptoms (nausea, anorexia), and clinical data from medical records. Nutritional status was evaluated using GLIM criteria.

Results: The prevalence of malnutrition was 43.4% (n=165), with moderate malnutrition at 35.3% (n=134) and severe at 8.2% (n=31). Highest prevalence was observed in haematological (51.4%), neurological (50%), gynaecological (47.1%), and gastrointestinal (43.3%) malignancies. Vomiting (71.6%), anorexia (77.4%), and regurgitation (65.8%) were the most common side effects reported. Premorbid low BMI and early nutritional referrals were significantly associated with malnutrition ($p < 0.05$). In contrast, sociodemographic factors (age, gender, education), food preferences, smoking, alcohol use, comorbidities, cancer type, or gastrointestinal symptoms (nausea, anorexia) did not show a significant association ($p > 0.05$).

Conclusion Malnutrition presents a significant burden among Sri Lankan oncology patients and underscores the need for effective nutritional interventions. Routine screening and early nutritional referral are vital for improving treatment tolerance, reducing morbidity and complications associated with malignancy, and ultimately enhancing outcomes, reducing healthcare burden, and improving quality of life.

Clinical audit on the implementation of post-operative medical nutrition therapy following ERAS protocol in the ICU, NHSL, Colombo

Madarasinghe HP¹, Mallawaarachchi MSS²

¹*Post Graduate Institute of Medicine, University of Colombo*, ²*Apeksha Hospital, Maharagama*

Introduction & Objectives: Enhanced recovery after surgery (ERAS) is an evidence-based pre- and post-operative care designed to improve surgical recovery, reduce postoperative complications, shorten hospital stay, and lower healthcare costs. Early introduction of nutrition promotes gastrointestinal integrity and facilitates early return of bowel function. This audit aimed to evaluate adherence to medical nutrition-related ERAS strategies in post-operative patients. Audit standards were expected 90% adherence.

Method A descriptive cross-sectional audit was conducted at the SICU NHSL, recruiting 30 participants. Data were retrospectively extracted from the BHT and clinical records.

Results The majority [80% (n=24)] aged between 35-69 years, and 63% (n=19) were males. The most common [43% (n=13)] surgical procedure was laparotomy. Preoperative nutritional status was poor, with 16.6% (n=5) and 36.6% (n=11) classified as underweight and with reduced food intake, respectively. Early nutrition initiation was observed in 72% (n=22), with oral feeding in 77%(n=23), 13%(n=4) enteral and 10%(n=3) parental nutrition, respectively. Gastric intolerance developed in 6% (n=2) participants. On discharge, 66.7% (n=20) achieved prescribed nutritional requirements, 12 through oral feeds, 5 enteral and 3 parenteral feeds. However, 33.3% (n=10) did not meet the targets and remained on clear liquids.

Conclusions This audit demonstrated that early initiation of nutrition was achieved in the majority of patients; however, 90% adherence was not met. While successfully initiated on oral or enteral feeding and achieving nutritional targets by discharge. It highlights the need to strengthen adherence to ERAS protocols through improved multidisciplinary collaboration, systematic nutritional monitoring and escalation.

PP061

The relationship between the body mass index, body image perception, and dietary habits among the students at the Faculty of Law, University of Colombo

Amaraweera VM¹, Weerasinghe S²

¹*Department of Allied Health Science, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Department of Sports Science, Faculty of Applied Sciences, University of Sri-Jayewardenepura, Sri Lanka*

University students often experience lifestyle changes that can impact their body perception and eating patterns, increasing the risk of non-communicable diseases. Law undergraduates, due to academic stress and limited time, may develop unhealthy dietary habits and body image concerns. This study aimed to evaluate the relationship between the BMI and body image perception while also describing the dietary habits of the students at the Faculty of Law, University of Colombo. A descriptive cross-sectional study that was conducted involving 257 undergraduates selected through stratified random sampling. Height and weight were measured using standard tools. Body image perception was assessed using the Body Image Questionnaire, while dietary habits were assessed using a pre-validated modified questionnaire tailored to local food types. The sample comprised 22.2% (n=57) males and 77.8% (n=200) females, with a mean age of 22.79 (± 1.55) years. Most participants were within the normal weight BMI category (61.4%, n=158), while the least were obese (1.2%, n=3). The mean rank scores of body image perception were highest among underweight participants (135.18). There was no relationship between BMI and body image perception ($p=0.802$). Dietary intake, categorized according to modified food groups based on Sri Lankan Food-Based Dietary Guidelines, revealed that vegetables (15.21%, n=162) and fish (14.37%, n=153) were the most consumed (1–3 times per day) categories. Nuts (13.48%, n=119) and whole-grain cereals (15.63%, n=138) were the least consumed. Therefore, body image interventions should focus on other related factors rather than BMI alone, and adhering to healthier dietary habits should be promoted.

Chronic Dietary Exposure to Foodborne Toxicants: Implications for the Pathogenesis of Type 2 Diabetes Mellitus

P.O.K. Panagoda¹, M.S.N. Alwis¹, H.M.A.M. Hennayaka¹, D.M.D.D. Dissanayake¹, T.D.D.T. Tennakoon².

¹*Department of Biomedical Sciences, Faculty of Medical Sciences, International Institute of Health Sciences, Welisara, Sri Lanka.*

²*Teaching Hospital Jaffna, Jaffna, Sri Lanka.*

Introduction and Objectives: Type 2 Diabetes Mellitus is a major global health concern characterized by insulin resistance and pancreatic β -cell dysfunction, with growing evidence highlighting the role of gut microbiota dysbiosis. Chronic dietary exposure to foodborne toxicants, including mycotoxins, heavy metals, pesticides, and food additives, has been increasingly linked to metabolic disturbances beyond conventional risk factors. This systematic review evaluates the role of these toxicants in gut microbiota alterations and their contribution to the pathogenesis of Type 2 Diabetes Mellitus.

Methods: A systematic literature search was conducted in PubMed, Scopus, and Google Scholar following PRISMA guidelines. Studies published between 2020 and 2026 were screened using predefined criteria. Peer-reviewed articles examining associations between dietary toxicants, gut microbiota changes, and metabolic outcomes in T2DM were included.

Results: Selected studies demonstrated that chronic exposure to foodborne toxicants alters gut microbiota composition. Across included studies, chronic foodborne toxicant exposure reduced beneficial microbial taxa (e.g., *Bifidobacterium*, *Faecalibacterium*) and enriched opportunistic pathogenic groups (e.g., Enterobacteriaceae), indicating dysbiotic gut profiles. These alterations were associated with decreased short-chain fatty acid production, increased intestinal permeability, systemic inflammation, and disrupted glucose metabolism. Multi-omics analyses revealed changes in microbial-derived metabolites linked to insulin resistance and impaired β -cell function, with consistent associations between microbial imbalance and metabolic dysfunction.

Conclusions: Chronic dietary exposure to foodborne toxicants contributes to gut microbiota dysbiosis, which plays a critical role in the development and progression of T2DM. These findings underscore the importance of food safety and targeted dietary interventions in mitigating metabolic risk and improving disease outcomes.

Knowledge, Attitudes, and Factors Influencing Nutritional Practices Among Chronic Obstructive Pulmonary Disease (COPD) Patients Attending a Selected Chest Clinic in Colombo

Author names: Vickneshwaran M¹, Varatharajah N¹, Kanagasabesan V¹, Sudusinghe VL¹, Seneviratne S²

¹*Faculty of Medicine, University of Colombo*

²*Department of Surgery, Faculty of Medicine, University of Colombo*

Background : Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of global mortality. Along with pulmonary impairment, patients with COPD often show varying degrees of malnutrition, which lead to a poorer prognosis. Global meta-analytical data indicates that up to 30.0% of COPD patients are malnourished, with 50% identified as being at risk. Despite that, it is usually overlooked during management. Nutritional practices among COPD patients remain poorly studied in the Sri Lankan context.

Methods : A descriptive cross-sectional study was conducted among 120 COPD patients visiting Central chest clinic, Colombo. The study population was recruited via consecutive sampling until the predetermined sample size was achieved. Data was collected via a self-developed, expert-validated, interviewer-administered questionnaire. Descriptive statistical analysis and Chi-square tests were performed using SPSS.

Results : Only 46.7% (n=56) of patients displayed good knowledge, while 67.5% (n=81) displayed good attitudes. Overall, 55.8% (n=67) demonstrated poor nutritional practices. Being informed about the importance of nutrition at the chest clinic (p=0.019) and being referred to a nutritional clinic (p=0.015) were found to be significant factors associated with better knowledge. Female gender and knowledge levels were positively associated with better nutritional practices (p<0.05).

Conclusion : Although positive attitudes exist, knowledge and nutritional practices remain suboptimal. Identified misconceptions regarding protein foods and dairy products underscore the need for targeted patient education. The findings highlight the importance of incorporating nutritional counseling and establishing a reliable referral system within routine COPD care, which will reinforce positive outcomes

Comparative Analysis of Basophil Activation Test versus IgE Levels in Predicting Clinical Reactivity Patterns in patients with Alpha-Gal Syndrome

Amaya T¹; Dissanayake C²; Chathurangika H²; Dissanayake M²; Jayamali J²; Danasekara S²; Amarasekara U¹; Ranasinghe T²; Aberathna IS²; Malavige N¹, Jeewandara C²

¹*University of Sri Jayewardenepura, Nugegoda, Sri Lanka;*

²*Institute of Allergology and Immunology, Nugegoda, Sri Lanka*

Introduction and Objectives Alpha-Gal Syndrome (AGS) is an emerging IgE-mediated hypersensitivity reaction to galactose- α -1,3-galactose, characterized by delayed allergic reactions to mammalian meat and derivatives. The Basophil Activation Test (BAT) is a valuable functional assay offering insight beyond discordance between serum IgE levels and clinical phenotypes. This study aimed to evaluate BAT as a functional marker of clinical reactivity in AGS.

Methods 31 individuals (14 female; mean age: 29 years) positive for alpha-gal specific IgE (>0.35 kU/L) were stratified into five clinical groups based on IgE levels and symptom severity: Group 1 (low IgE anaphylaxis, n=11), Group 2 (low IgE allergy, n=4), Group 3 (high IgE anaphylaxis, n=5), Group 4 (high IgE allergy, n=6), and Group 5 (asymptomatic controls, n=5). BAT was performed using whole blood with the Flow CAST® kit (BÜHLMANN Laboratories AG). Allergen stimulation was conducted using alpha-gal HSA, pork, beef, mutton, and cow's milk extracts.

Results Of the 31 individuals evaluated, Symptomatic groups showed significantly higher BAT responses than asymptomatic group across all tested allergens with median CD63+ percentages of 62.4% vs 1.77% for alpha-gal-HSA, 49.25% vs 1.2% for beef, 55.35% vs 0.87% for pork, 53% vs 0.85% for mutton, and 42.75% vs 0.86% for cow's milk, respectively. Anaphylaxis groups (1,3) exhibited the highest activation, independent of IgE levels.

Conclusion This study demonstrates that the Basophil Activation Test provides functionally relevant information distinguishing clinical phenotypes in alpha-gal syndrome more effectively than serum IgE alone.

Knowledge on preanalytical phase in clinical chemistry in a cohort of pre-intern medical graduates in Sri Lanka

Fernando SCJ¹, Fernando ISIP², Premadasa MGTW³, Seneviwickrama KLMD^{4,5}, Dilanthi HW⁶, Jayawardana RDP³, Vidanapathirana DM⁷

¹Regional Blood Centre, Base Hospital Mahaoya, Mahaoya

²Department of Paediatrics, Base Hospital Mahaoya, Mahaoya

³Department of Chemical Pathology, National Hospital Kandy, Kandy

⁴Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura

⁵Centre for Cancer Research, University of Sri Jayewardenepura

⁶Department of Biochemistry and Molecular Biology, University of Colombo

⁷Department of Pathology, Faculty of Medical Sciences, University of Sri Jayewardenepura

Introduction and Objectives

Errors in the preanalytical phase account for the most laboratory errors and compromise diagnostic accuracy and patient safety. Pre-intern medical graduates, about to begin internship with responsibility for requesting tests and ensuring specimen collection, represent a critical group to assess. This study aimed to evaluate their knowledge of the preanalytical phase in clinical chemistry in Sri Lanka.

Methods

A descriptive cross-sectional study was conducted among graduates from eight medical faculties recognised by the University Grants Commission. Knowledge was assessed using a pre-tested, self-administered online questionnaire comprising 15 questions (maximum score 75) and categorized as 'Poor' (<50%), 'Average' (50–75%), or 'Good' (>75%). The calculated sample size was 393. Data were analysed using SPSS. Chi-square used to identify associated factors ($p < 0.05$).

Results

Response rate was 24.8%. Of 286 participants, 58% were female. Most had received prior lectures (83.9%) and training in sample collection (83.6%). Representation was highest from Peradeniya (26.9%) and lowest from Eastern (3.8%). The mean score was 46.04 (SD = 13.81). Majority (60.8%) demonstrated 'Poor' knowledge. Only 0.7% had 'Good' knowledge. Highest mean item scores were for specimen transport on ice (4.58/5) and sample volume (3.97/5), while lowest were for fasting duration (0.52/5) and 24-hour urine collection (0.65/5). Undergraduate lectures on pre-analytical phase were significantly associated with higher scores ($p = 0.010$), while specimen collection training was not ($p = 0.118$).

Conclusion

Pre-intern medical graduates in Sri Lanka demonstrate suboptimal knowledge of the preanalytical procedures. Strengthening undergraduate training is essential to reduce laboratory errors and improve patient safety.

Incest in Sri Lanka is Characterized by Predominance Among Minors and Critical Delays in Reporting - A Police Data Analysis

Paranavitana YKS¹, Liyanage KA¹, Perera KSK¹, Dilshara MMS¹, Wickramasinghe SW¹, Fernando KRT¹, Balasooriya BMYM¹, Kitulwatte IDG¹, Kasturiratne KTAA¹, Edirisinghe PAS¹

¹*Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka*

Introduction Incest is a concealed but significant form of sexual abuse with notable clinical, forensic, social and psychological consequences. Despite its notable prevalence, local data describing characteristics and patterns of incest barely exist. Our objective was to characterize the epidemiology and reporting patterns of incest cases using national police data.

Methodology A retrospective descriptive study was conducted analysing 3741 reported sexual offence cases. Incest was defined based on recorded familial relationships between victim and perpetrator. Victim age distribution and time to reporting were analyzed with the use of Statistical Package for Social Sciences (SPSS) software.

Results From the total sample of 3741 sexual violence cases we analyzed, 140 (3.7%) were recognized to be incest. Victims were predominantly minors, with 49 (35%) aged 12-16 years and 43 (30.7%) aged 5-12 years. Only a minority were adults. When looking at relationships, fathers were the commonest offenders (60.7%), followed by siblings (14.3%).

Grandfathers (8.6%) were also among the perpetrators. Early reporting was low, with 30 (21.4%) cases reported within 24 hours. 26 (18.6%) cases were reported between 1-6 months, and 20 (14.3%) cases between 1-5 years. This indicates prolonged exposure, delayed reporting, and missed opportunities for intervention.

Conclusion Incest disproportionately affects minors and shows significant delays in reporting. These delays undermine forensic evidence collection, delay clinical care and legal outcomes. Introducing safe disclosure pathways, and integrating multidisciplinary responses are essential to address this issue.

SWOT Analysis of Gender-Based Violence Case Handling in Sri Lanka: Perspectives of High Court Judges

Dilshara MMS¹, Perera KSK¹, Liyanage KA¹, Paranavitana YKS¹, Wickramasinghe SW¹, Fernando KRT¹, Edirisinghe PAS¹, Kithulwatte IDG¹, Edirisinghe EADA¹, Kaushalya ITMSS²,

¹*Faculty of Medicine, University of Kelaniya, Sri Lanka*

²*Faculty of Social Sciences, University of Kelaniya, Sri Lanka*

Introduction and Objectives: Gender-based violence (GBV) continues to be a significant social and legal issue in Sri Lanka, where thousands of people are impacted every year, and is challenging the justice system. There has been a gradual shift in judicial practices by Sri Lanka's High Courts to demonstrate a more victim-sensitive approach and legal protection measures to enhance access to justice for victims. The overall objective of the study was to analyse the strengths, weaknesses, opportunities, and threats (SWOT) of GBV case handling from the perspective of High Court judges and to identify the areas for future improvement in judicial responses and institutional effectiveness.

Method: The research design used in this study was a qualitative study. In Sri Lanka, seven High Court judges with firsthand experience of adjudicating GBV cases were interviewed using a semi-structured, in-depth interview format. Thematic analysis was used for analysing interview transcripts, while SWOT analysis was used to categorize the findings. Four major themes and 16 subthemes emerged from the analysis.

Results: Accordingly, 85% of the seven judges interviewed highlighted judicial independence and good legal skills as areas where they felt that GBV case handling was good. Around 71% highlighted the positive influence of victim-sensitive procedures, such as in-camera hearings and the measures related to the protection of victims. However, 78% cited procedural delays and the growing backlogs of cases as significant weaknesses. Improved judicial training was identified as an opportunity (86%), the digitalization of court processes (72%), and a greater degree of inter-agency collaboration (68%). More than 80% of the participants attributed the major external threats to reporting and case resolution to persistent societal stigma, patriarchal attitudes, and victims' economic dependency.

Conclusions: The results show that the judiciary in Sri Lanka has good institutional capacity to enhance the handling of GBV cases. Further legal reform, specific capacity development activities, and enhanced support mechanisms can help to foster effective, victim-centered, and equitable justice delivery across Sri Lanka.

Clinicians' Perspectives on the Management of Survivors of Sexual and Gender-Based Violence in North Central, Southern and Western Provinces of Sri Lanka

Fernando KRT¹, Wickramasinghe SW¹, Liyanage KA¹, Perera KSK¹, Dilshara MMS¹, Parनावितана YKS¹, Balasooriya BMYM¹, Kitulwatte IDG¹, Kasturiratne KTAA¹, Edirisinghe PAS¹

¹*Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Sexual and Gender-Based Violence (SGBV) is associated with complex physical, psychological, and social consequences that require multidisciplinary medical management. The role of clinicians varies according to their specialty in prevention, identification, treatment, and long-term management of SGBV including assistance with medico-legal procedures. This study explored the attitudes, perceptions, and experiences of clinicians involved in the management of survivors of SGBV in Sri Lanka.

Methods: A qualitative study was conducted using key informant interviews guided by semi-structured interview guides with seven clinicians from psychiatry (3), child psychiatry (1), venereology (2), and pediatrics (1) across 4 selected hospitals located in these three provinces of Sri Lanka. Interviews were transcribed and manually analyzed using thematic analysis to identify recurring themes related to survivor care, service delivery, institutional challenges, and intersectoral collaboration.

Results: Several key themes were identified. Clinicians emphasized the importance of multidisciplinary and intersectoral collaboration involving Judicial Medical Officers, psychiatrists including child and adolescent psychiatrists, pediatricians, venereologists, police, probation services, schools, and community-based support systems. Their experiences highlighted the substantial psychological and social consequences of SGBV including psychological trauma, stigma, family disruption, and interruption to education. Confidentiality concerns and re-victimization were identified as major barriers to the proper follow up and recovery. Continuity of care is limited due to lack of structured case management, dependence on individual clinicians and weak follow-up mechanisms. Resource constraints, including lack of training among clinicians, confidential spaces, standardized protocols and centralized record-keeping, further affect the quality of the service delivery.

Conclusion: The management of SGBV survivors in Sri Lanka is evolving but remains fragmented. Strengthening intersectoral collaboration, confidential survivor-centered care, structured follow-up systems, and protocol-driven practices may improve the quality and sustainability of services.

Sex Determination by Evaluation of Occipital Condyles on Dry Human Skulls

Lanka Ranaweera¹, WNS Perera², Ajith Jayasena³, Eranda Cabral⁴, LLRB Cabral⁵

¹*Department of Anatomy, Faculty of Medicine, University of Kelaniya*

²*Department of Forensic Medicine, Faculty of Medicine, University of Kelaniya*

³*Medico-Legal Unit, Teaching Hospital, Kuliyaipitiya*

⁴*Postgraduate Institute of Medicine, Colombo*

⁵*Faculty of Science, University of Kelaniya.*

Introduction: Sex determination from human skeletal remains is an important yet challenging aspect of forensic investigations and occipital condyle morphometry may serve as valuable parameters for this purpose. The objective of this study was to determine sex by assessing the osteometric parameters of the occipital condyles in Sri Lankan dry skulls.

Methods: Fifty-eight dry skulls (38 males and 20 females) from the Medico-Legal Unit, Teaching Hospital, Kurunegala, Sri Lanka, were included in this study. Six parameters of the occipital condyle; Maximum length of the right occipital condyle (R_MLOC), maximum breadth of the right occipital condyle (R_MBOC), maximum length of the left occipital condyle (L_MLOC), maximum breadth of the left occipital condyle (L_MBOC), anterior intercondylar distance (AID), and posterior intercondylar distance (PID) were measured. Using R software, logistic regression analysis and multivariate analysis were applied to develop classification models with predictive accuracy.

Results: The results indicated that the mean values of most of the occipital condyle measurements were higher in males than in females. The discriminant function analysis revealed that R_MBOC was the variable that showed the highest degree of sexual dimorphism. The multivariate analysis of variance showed a statistically significant overall effect of sex when the occipital condyle measurements were considered altogether ($p = 0.0486$). The later mentioned model achieved a total classification accuracy of approximately 72%.

Conclusion: This study indicates that the combined six occipital condyle measurements (R_MLOC, R_MBOC, L_MLOC, L_MBOC, AID and PID) is useful for sex determination from skull remains in forensic contexts.

PP070

Knowledge and Attitudes About Preventive Practices of Dementia Care Among Science Undergraduates in Colombo District

MFF Sameeha¹, MHM Wickramasekara², CS Rathnayake², NT De Silva²

¹*Management and Science Institute, Colombo*

²*University of Kelaniya*

Introduction and Objective Dementia is a growing global health concern, significantly affecting individuals, caregivers, and healthcare systems. Despite its increasing prevalence, limited research has explored the knowledge, attitudes, and preventive practices related to dementia care among science undergraduates in Sri Lanka. This study aims to assess the knowledge and attitudes on preventive care among students in the Colombo District.

Methodology and Results A descriptive cross-sectional study was conducted from August 2022 to November 2023 using a validated online questionnaire. Ethical approval was obtained, and the collected data were analysed using Statistical Package for the Social Sciences (SPSS) version 26. The majority (88.5%) were aged 20–28 years, with a mean age of 23.95 years (SD = 3.13). Of the participants, 82.4% had heard of dementia, though misconceptions persisted—26% believed memory loss is a normal part of ageing. Overall, 41.2% demonstrated good knowledge, while 61.2% had inadequate knowledge ($p=0.045$). A positive attitude towards dementia care was observed in 74.1% of students, yet gaps in understanding remained, particularly regarding preventive practices.

Conclusions Findings highlight the need for targeted health education programs to improve dementia awareness among science undergraduates. Integrating dementia-related topics into academic curricula and implementing awareness campaigns could result in better knowledge, attitudes, and caregiving practices. Addressing these gaps is crucial for preparing future professionals to contribute effectively to dementia care. Further research is recommended to assess broader societal understanding and to develop interventions that enhance public and professional awareness.

Determinants of hepatitis and rise in ALT in multi-drug therapy for leprosy

Arudchelvam U¹, Thubellage DS², De Silva TSD³, Kahawita IP¹

¹*Dermatology Unit, National Hospital of Sri Lanka, Colombo*

²*Central Leprosy Clinic, National Hospital of Sri Lanka, Colombo*

³*University of Sri Jayewardenepura, Sri Lanka*

Introduction: Hepatotoxicity is a recognized complication of multidrug therapy (MDT) for leprosy, linked to multiple agents. Elevations in alanine aminotransferase (ALT) and hepatitis are clinically significant, yet comparative evidence between patients who develop hepatitis and those who don't remains limited.

This study aimed to describe ALT trends during MDT, determine the proportion developing hepatitis, identify associated factors, and compare baseline ALT and ALT rise between patients who developed hepatitis and those who did not.

Methodology: A retrospective analysis of MDT-treated patients from January 2016 to December 2023 was conducted using clinic records. Patients were considered to have hepatitis if they either showed any clinical features such as jaundice or showed an elevated liver profile above three times the upper limit. Non-parametric statistical tests were applied due to non-normal data distribution.

Results: A total of 493 patients were included (mean age 40.2 ± 16.8 years; 69.2% male). Median baseline ALT was 26U/L (IQR 17.25–42.45), and the median ALT rise during treatment was 6.9U/L (IQR –1.05 to 16.8). The maximum ALT rise occurred at a median of 4 weeks (IQR: 4–8 weeks). Hepatitis occurred in 5.5%. The distribution of ALT elevation of the cohort was as follows: normal ALT in 252 patients, mild elevation ($>UL$) in 219, moderate elevation ($>3xUL$) in 8, and severe elevation ($>5xUL$) in 14.

Hepatitis was significantly associated with receiving MDT-MB (6.9% vs. 2.5% receiving MDT-PB), higher baseline ALT (median 31U/L vs. 26U/L), and a larger ALT rise (median 114 U/L vs. 6 U/L). Age and sex were not associated with hepatitis. Baseline ALT correlated inversely, while time to maximum ALT correlated positively with the ALT rise ($p<0.05$). The time to maximum ALT rise was similar, regardless of hepatitis status.

Conclusions:

ALT elevations and hepatitis are important toxicities during Leprosy-MDT. Higher baseline ALT and MDT-MB regimens increase the risk of hepatitis, supporting targeted monitoring and early detection in higher-risk groups.

Non-Randomized Interventional Study on the 5A's Smoking Cessation Method in the Eastern Naval Area (ENA), 2021–2022: A Public Health Approach to Resilience during a Crisis Period

Samarawickrama DI¹, Samarawickrama MMM²

¹*Navy Hospital, Trincomalee*

²*Kothalawala Defense University*

Introduction: Non-communicable diseases (NCDs) remain the leading cause of morbidity and mortality worldwide, with tobacco use identified as a major modifiable risk factor, particularly for cardiovascular diseases. The anticipated rise in ncds in the post-COVID-19 era, including those associated with long COVID, highlights the need for effective and feasible smoking cessation strategies. The 5A's method (Ask, Advise, Assess, Assist, Arrange), recommended by the United States Public Health Service Clinical Practice Guidelines, is a brief behavioural intervention widely used to support smoking cessation.

Methodology: This non-randomized purposive intervention study was conducted among naval personnel with unhealthy smoking behaviours in the Eastern Naval Area (ENA), Sri Lanka, from March to October 2022.

Results: A total of 147 participants were enrolled, of whom 87% (n=128) had NCD or pre-NCD risk conditions such as impaired glucose tolerance or low-density lipoprotein cholesterol >116 mg/dL. The majority were aged 30–39 years (66.6%), followed by 20–29 years (19.8%) and 40–49 years (13.2%). Most participants were junior sailors (83%) with educational attainment below advanced level. Participants received behaviour change communication through brief counselling using the 5A's method for six months. Within three months of the intervention, 72.3% of participants either quit smoking or reduced cigarette consumption by 39.8%. Statistical analysis using a paired t-test demonstrated a significant reduction in smoking behaviour ($p < 0.05$).

Conclusion: The findings suggest that the 5A's method is a practical, low-cost, and effective smoking cessation strategy

Contribution of Primary Health Care in the Management and Referral of Psychiatric Patients in a Rural District of Sri Lanka

Jayathilake E.P.G.C.A¹, Jayasena R.R.T¹, Jayasinghe J.M.C.S¹, Jayathilaka J.M.N.J¹, Jayathilaka S.D.M.K¹, Jayawardhana W.P.S.N¹, Jayaweera W.N.S¹, Abeyrathna D.M.P.L.K¹

¹Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka.

Introduction: Mental health disorders contribute substantially to the global health burden, affecting around 1 in 7 people worldwide. In Sri Lanka, specialist psychiatric services are concentrated in urban areas, making primary healthcare (PHC) institutions important for early management in rural communities.

Methodology: A quantitative cross-sectional study was conducted among 116 psychiatric patients attending the specialized psychiatric clinic of Teaching Hospital Anuradhapura. Data were collected using a pre-tested interviewer-administered questionnaire and analysed using the Statistical Package for the Social Sciences software. Descriptive statistics summarized findings.

Results: Participants included 64.7% females and 35.3% males, with a median age of 43 years. All participants identified a PHC institution as their usual source of healthcare, with a mean duration of 27.5 years. (standard deviation = 20 years) 20.7% of patients sought primary care doctors as their initial health care provider. First diagnoses were made by consultant psychiatrists (73.24%), OPD doctors (18%), and general practitioners (7.7%). Among patients who initially sought PHC care, 54.3% received initial management, while 36.2% were referred to specialized psychiatric services without intervention.

Conclusion: Only ¼ of psychiatric conditions were diagnosed by primary care doctors, even though primary health care served as the usual source of healthcare for all participants. Strengthening mental health capacity within PHC services could improve patient outcomes.

Factors affecting the utilization of primary psychiatric services: Individual-level barriers among psychiatric patients in Teaching Hospital, Anuradhapura

Jayathilake EPGCA¹, Jayasena RRT¹, Jayasinghe JMCS¹, Jayathilaka JMNJ¹, Jayathilaka SDMK¹, Jayawardhana WPSN¹, Jayaweera WNS¹, Abeyrathna DMPLK²,

¹*Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

²*Department of Family Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

Introduction Access to psychiatric care is essential for effective management of mental health conditions in rural settings. However, barriers to primary psychiatric care delay the early diagnosis and treatment. Understanding the barriers is important for improving effective accessibility and utilization of mental health services in primary care settings. In this study, 'utilization of primary psychiatric services' refers to accessing mental health services provided at primary healthcare institutions (e.g., Primary Medical Care Units and Divisional Hospitals), and the financial costs assessed include indirect expenses such as transportation, loss of income, and other out-of-pocket costs incurred while accessing these services.

Methodology A descriptive cross-sectional study was conducted among 116 patients attending the psychiatric clinic at Teaching Hospital, Anuradhapura. Data were collected using a structured questionnaire to assess individual and community-level barriers to accessing primary psychiatric care.

Results Financial difficulties were the most commonly reported barrier (29.3%). Approximately one-fifth of participants identified poor awareness of mental illness as a personal barrier. The most frequently reported community-related barrier was the lack of nearby mental health facilities (27.6%). No statistically significant associations were found between perceived barriers and age, gender, or place of residence.

Conclusion Financial constraints, poor mental health awareness, and limited availability of mental health facilities were the major barriers to utilizing primary psychiatric services. Improving mental health literacy, reducing financial burdens, expanding rural mental health services, integrating mental healthcare into primary care, and conducting multicentre research are recommended to enhance equitable access and timely psychiatric care.

Social Support Among Postpartum Mothers in Urban and Rural MOH Areas of Colombo District, Sri Lanka

Mahanama, LPKSM¹, Nanayakkara IOKK², Nanayakkara ME³, Liyanage SN⁴, Rathnayake RMDD⁵ Weerasinghe DSK⁶, Mahesh PKB⁵

¹*University of Colombo, Sri Lanka.*

²*Health Promotional Bureau, Ministry of Health*

³*Colombo North Teaching Hospital, Ragama*

⁴*Postgraduate Institute of Medicine, University of Colombo*

⁵*Office of the Regional Director of Health, Colombo*

⁶*College of Community Physicians of Sri Lanka*

Introduction and Objectives: Social support is important for maternal well-being and adjustment during the postpartum period and may differ between urban and rural communities. This study aimed to describe the structural and functional social support received by mothers two-months postpartum attending Well-Baby Clinics in Battaramulla and Kahathuduwa MOH areas.

Methods: A descriptive cross-sectional study was conducted among 600 mothers (response-rate=83.3%). using an interviewer-administered questionnaire. Descriptive statistics, Chi-square tests, t-tests, and ANOVA were performed ($p < 0.05$).

Results: The mean maternal age was 30.9 ± 4.9 years. Most mothers had passed GCE O/L or above (79.2%), exclusively breastfed their infants (88.5%), and lived in extended families (54.1%). Overall, 70.8% reported receiving support for baby care. Among mothers with more than one child, 58.0% reported receiving support for older children, while 17.5% reported receiving no support. The mean total social support score was 17.4 ± 5.7 , and the five-item social support scale demonstrated acceptable reliability (Cronbach's $\alpha = 0.729$). Husband support showed the highest mean score (4.70 ± 0.80), while neighbors' support showed the lowest (2.39 ± 2.01). Significant associations were observed between availability of support for baby care and having other children ($p = 0.001$), and between family structure and having other children ($p < 0.001$). Mean total social support scores did not significantly differ between urban and rural mothers (17.7 ± 5.9 vs 17.1 ± 5.5 ; $p = 0.298$), although husband support was significantly higher among urban mothers ($p = 0.049$).

Conclusion: Postpartum mothers reported moderate levels of social support, with husbands and families being the main support. Overall, social support did not significantly differ between urban and rural mothers.

Evaluation of communication skills of medical students: identifying domain-specific gaps in undergraduate training

Krishnapradeep S¹, Abeykoon WDSE², De Silva HLSS¹, Wijethunga TV², Baddevithana BVDS², Abeyagunawardena S³, Pathirage LPMMK³

¹*Department of Paediatrics, Faculty of Medicine, University of Peradeniya*

²*Department of Family Medicine, Faculty of Medicine, University of Peradeniya*

³*Department of Medicine, Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Effective clinical communication underpins patient safety and quality care. Although communication skills training is integrated into undergraduate curricula, domain-specific competency gaps remain insufficiently characterised using objective assessments. This study aimed to evaluate communication competency and identify domain-level differences between two academic cohorts of medical students.

Method: A retrospective comparative cohort study was conducted using Objective Structured Practical Examination (OSPE) data from fourth-year medical students across two consecutive academic years. All eligible students were included (n = 475; 238 in 2019–2020 and 237 in 2020–2021). Communication performance across nine domains was analysed. Reliability and construct validity were assessed using Cronbach's alpha, item-total correlations, and exploratory factor analysis. Multivariate analysis of variance (MANOVA) with follow-up ANOVA was used.

Results: The 2020–2021 cohort demonstrated a lower overall mean score compared to the 2019–2020 cohort (64.81 vs 69.48). While foundational competencies, including rapport building and information gathering, remained stable, significant deficits emerged in higher-order domains. The most pronounced decline was observed in closure and synthesis ($p < 0.001$), with a smaller but significant reduction in rapport and empathy ($p = 0.0127$). Information gathering showed no significant difference ($p = 0.7354$). The assessment tool demonstrated strong internal consistency (Cronbach's alpha > 0.80) and a robust three-factor structure explaining 61.4% of total variance.

Conclusions: Communication competency is characterised by preserved foundational skills but a relative deficit in higher-order clinical synthesis. These findings highlight a critical gap in transitioning from information gathering to clinical reasoning and decision-making. Targeted curricular strategies focusing on advanced communication skills are required.

Is Eosinophilia Mandatory in DRESS? A Case Series Evaluating Peripheral and Tissue Eosinophilia

Viduranga HS¹, Arudchelvam U¹, Jayakody S¹, Ranmohottige USN¹, Kahawita IP¹

¹*Dermatology Unit, National Hospital of Sri Lanka, Colombo*

Introduction and Objectives Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) is a severe, potentially life-threatening hypersensitivity reaction. Although eosinophilia is traditionally regarded as a hallmark feature, it may not be consistently present. The objective of this study was to evaluate peripheral blood and tissue eosinophilia in patients with DRESS syndrome, including their correlation and diagnostic utility.

Methods A retrospective case series was conducted on 12 consecutive inpatients diagnosed with DRESS. Cases were classified using the RegiSCAR scoring system as possible, probable, or definite. Clinical and laboratory data were extracted from medical records. Peripheral blood eosinophilia was defined as an absolute eosinophil count >700 cells/ μ L or $\geq 10\%$ of total leukocytes.

Results Among the 12 patients, five possible, six probable, and one definite case of DRESS were identified. The most common culprit drug was sulfasalazine ($n = 5$). Other implicated drugs included leflunomide, carbamazepine, lamotrigine, allopurinol, vancomycin, piperacillin-tazobactam, and co-trimoxazole. The time taken from drug exposure to the onset of symptoms ranged from 16 to 69 days. Eight patients developed peripheral eosinophilia, while four did not. Histopathology was available in 11 patients, and 6 had eosinophils on histology. Among those with eosinophils in the tissue ($n=6$), two did not have peripheral eosinophilia. Of the five patients who did not have eosinophils in the tissue, four exhibited peripheral eosinophilia.

Conclusion Our findings demonstrate that eosinophilia is neither uniformly present in DRESS nor consistently correlated between peripheral blood and tissue specimens. Therefore, the absence of eosinophilia should not deter an early diagnosis of DRESS.

Eosinophilia & severity of liver injury in DRESS syndrome: Insights from a case series

Viduranga HS¹, Arudchelvam U¹, Jayakody S¹, Ranmohottige USN¹, Kahawita IP¹

¹*Dermatology Unit, National Hospital of Sri Lanka, Colombo*

Introduction and Objectives: Drug reaction with eosinophilia and systemic symptoms (DRESS) is a severe, potentially life-threatening hypersensitivity reaction, with the liver being the most commonly involved organ. This study aimed to assess whether peripheral blood eosinophilia correlates with the severity of transaminitis in patients with DRESS syndrome.

Methods: A retrospective case series was conducted involving twelve consecutive patients diagnosed with DRESS. Cases were classified using the RegiSCAR scoring system as possible, probable, or definite. Clinical data were extracted from medical records, and peripheral blood eosinophilia was categorized as none, mild, or severe based on established criteria. The severity of transaminitis was classified as mild, moderate, or severe according to a Delphi-based international consensus.

Results: Among the twelve patients, five were classified as possible, six as probable, and one as definite DRESS. Sulfasalazine was the most common culprit drug (n=5). The latency period ranged from 16 to 69 days. Eight patients developed peripheral eosinophilia. Elevated AST and ALT levels were observed in 10 and 8 patients, respectively. Among those with elevated AST, six had eosinophilia, while four of eight patients with elevated ALT had eosinophilia. Notably, all four patients without eosinophilia demonstrated at least mild elevations in both AST and ALT.

Conclusion: In this case series, peripheral blood eosinophilia did not consistently correlate with the severity of transaminitis. Significant hepatic involvement occurred even in the absence of eosinophilia, suggesting that eosinophil count alone may not be a reliable predictor of liver injury severity in DRESS syndrome.

Molecular Characterization and Phylogenetic Analysis of *Toxoplasma gondii* Isolates from Immunocompromised Patients in Sri Lanka

Weerasooriya GPC¹, Manamperi A², Banneheke BMHA^{1,3}

¹Department of Parasitology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

²Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka

³North Wales Medical School, Bangor University, United Kingdom

Introduction: Toxoplasmosis is an opportunistic infection among immunocompromised individuals. Despite its clinical importance, information is sparse regarding the genetic diversity of *Toxoplasma gondii* strains circulating in Sri Lanka. This study aimed to detect *T. gondii* DNA and evaluate the phylogenetic relationships of isolates obtained from immunocompromised patients.

Method: A total of 663 patients were included, comprising 321 cancer patients and 342 end-stage renal disease and renal transplant recipients. Parasitic DNA was detected through primary PCR amplification of the B1 gene with subsequent confirmation by nested PCR. Five B1 gene-positive samples from cancer patients and five from renal patients were sequenced. The sequences were submitted to GenBank and aligned with globally reported isolates for phylogenetic analysis.

Results: Among the 663, 30 out of 321 cancer patients and 28 out of 342 renal patients were both primary and nested PCR positive. Phylogenetic analysis demonstrated close genetic relatedness between Sri Lankan isolates and strains reported from neighbouring countries. Four renal isolates and one cancer isolate clustered with a strain from West Bengal, India. One renal isolate aligned with a goat-derived strain from Bangladesh. Among cancer isolates, two showed similarity to Iranian strains, while another clustered with a Chinese isolate. One isolate aligned with an Iraqi strain.

Conclusions: These findings indicate genetic relatedness between Sri Lankan isolates and regional strains, suggesting possible cross-border transmission and/or common evolutionary lineages. This is the first molecular characterization and the first GenBank submission of *T. gondii* sequences from Sri Lanka, contributing globally valuable data for molecular epidemiology.

Elderly Patients in Intensive Care Unit(ICU): Clinical Profiles and Mortality Trends at Ashraff Memorial Base Hospital (AMH) Kalmunai, Sri Lanka

Silmy MBM¹, Ashmah AFF¹, Karunananda DAOI²

¹Postgraduate institute of medicine, University of Colombo,² Ashraff Memorial Hospital Kalmunai

Introduction: As Sri Lanka undergoes a rapid demographic transition, the healthcare system faces the growing challenge of managing elderly population.

Objective: To identify clinical profiles and mortality trends and related factors of elderly patients in ICU of AMH Kalmunai in 2024

Methodology: A cross-sectional descriptive study analyzing a sample of 87 elderly patients. Data were extracted from ICU and ward records to evaluate demographics, comorbidities, primary diagnoses, and mortality factors.

Results: Elderly patients accounted for 35.8% of total ICU admissions. It was dominated by surgical/post-op needs (43.7%) and sepsis (34.5%), The cohort was characterized by a high prevalence of multi-morbidity (87.4%). The overall mortality rate was 31%, sepsis and the requirement for mechanical ventilation identified as significant predictors of poor outcomes ($p < 0.05$). The mean ICU stay was 2.94 days, and 44.4% of deaths occurred within the first 24 hours, suggesting a pattern of late-stage referrals or rapid physiological decline.

Conclusion: The high mortality and brief stays indicate that the ICU often serves as a late-stage intervention point in a resource constrained environment. Our findings highlight a critical need to bridge the gap between necessity and geriatric vulnerability. To improve survival and dignified care, the study recommends the expansion of High Dependency Units to alleviate ICU strain, the implementation of early sepsis bundles and specialized geriatric training for frontline staff.

Moderating Effect of Self-Efficacy on the Relationship Between Functional Mobility and Physical Quality of Life Among Residents of Selected Elderly Homes in the Kurunegala District

Amani MIF¹, Wettasinghe AH¹

¹*Department of Allied Health Sciences, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives: With rapid population ageing, understanding factors influencing health-related quality of life (HRQoL) is essential. While functional mobility and self-efficacy are important determinants, their combined effect on HRQoL remains unclear. This study examined whether self-efficacy moderates the relationship between functional mobility and the physical and mental components of HRQoL among institutionalized older adults in Kurunegala.

Methods: A cross-sectional study was conducted among 112 elderly residents aged ≥ 60 years, in selected elderly homes in the Kurunegala district. Self-efficacy and functional mobility were evaluated using General Self-efficacy (GSE) scale and Timed Up and Go (TUG) test, respectively. The HRQoL was assessed with the 36-item Short Form Health Survey (SF-36), and physical (PCS) and mental (MCS) subcomponent scores were analysed. Moderation analysis was performed using the PROCESS macro (Model 1).

Results: For PCS, functional mobility ($\beta = -0.380$, $p < 0.001$) and self-efficacy ($\beta = 0.808$, $p < 0.001$) were significant predictors. A significant interaction effect was observed ($\beta = -0.017$, $p = 0.017$), indicating that self-efficacy moderated the relationship between functional mobility and physical HRQoL. In contrast, for MCS, neither the overall model ($p = 0.429$) nor functional mobility ($p = 0.586$), self-efficacy ($p = 0.453$), and their interaction ($p = 0.496$) were statistically significant.

Conclusion: Self-efficacy significantly modifies the relationship between functional mobility and physical HRQoL, highlighting the importance of promoting both psychological resilience and physical function to enhance overall well-being in this population. However, mental HRQoL appears to be influenced by other factors beyond functional mobility and self-efficacy.

Population Ageing, Non-Communicable Disease Burden, and Financial Implications in Sri Lanka: A Secondary Data Analysis (2012–2024)

Ranasinghe J.M.S.Dineshan¹, Nandasena S², Ratnayake D.R.D³, Gunawardana U¹, Viraj Udayanga¹ De Soysa Naveen⁴

¹*Post Graduate Institute of Medicine Colombo*

²*Faculty of Medical Sciences, University of Sabaragamuwa*

³*Preliminary Care Unit Horana*

⁴*Regional Director, Health Services Office, Kalutara*

Introduction and Objective: Sri Lanka is undergoing a rapid demographic transition, with a substantial increase in the elderly population, leading to major implications for healthcare systems, non-communicable diseases (NCDs), and financial protection. This study was to assess population ageing trends, district-level disparities, the burden of non-communicable diseases among older adults, and the associated financial vulnerability in Sri Lanka.

Methods: This secondary data analysis assessed population ageing trends, the disease burden among the elderly, and associated financial implications in Sri Lanka between 2012 and 2024, using data from the Department of Census and Statistics, Indoor Morbidity and Mortality Reports, the Global Health Expenditure Database, and OECD datasets.

Results: From 2012 to 2024, the proportion of individuals aged ≥ 65 years increased from 7.9%(1.6 million) to 12.5%(2.7 million), while the total population increased by only 7.0%. In contrast, the elderly population increased by 70.8%. Concurrently, the old-age dependency ratio increased from 13.4 to 17.9. In Colombo, Jaffna, Kegalle, Matara, and Gampaha demonstrated high ageing growth ratios, while Mullaitivu, Mannar, Kilinochchi, Anuradhapura, and Moneragala showed the highest increases in elderly populations. In 2024, individuals aged >70 years accounted for a high proportion of admissions for COPD(44.3%), heart failure(42.7%), and cerebrovascular accidents(41.9%), while diabetes mellitus and hypertension also increased over the study period.

Out-of-pocket health expenditure declined until 2020, then increased sharply, reaching 54.8% in 2023.

Conclusion: Sri Lanka is experiencing rapid demographic ageing with increasing economic and healthcare pressures, a rising NCD burden, and growing financial vulnerability among older adults. These findings highlight the need for strengthened geriatric care, long-term chronic disease management, financial protection, and district-specific policy responses.

Impact of a multidisciplinary orthogeriatric pathway on hip fracture outcomes: A prospective clinical audit

Wijayabandara MDMS¹, Dissanayake DMTSK¹, Ihsana I¹, Ranasinghe RAKK¹, Jayasinghe YB¹, Jayarathne ASN¹, Wijesinghe WMNC¹, Kiriwattuduwa SNK¹, Peiris SRKK¹, Vithana DPAK¹

¹*National Hospital, Kandy*

Introduction: Hip fractures in elderly are associated with high morbidity and mortality. Prior to this project, Sri Lanka lacked a structured orthogeriatric care pathway, leading to delays in surgery, inconsistent perioperative care, and limited secondary fracture prevention. This audit evaluated the impact of implementing a multidisciplinary hip fracture care pathway for patients aged ≥ 60 years.

Methodology: A prospective clinical audit was conducted at the National Hospital-Kandy from December 2025 to March 2026, including 280 patients aged ≥ 60 years admitted with fragility hip fractures. Baseline data were collected during December 2025–January 2026. In February 2026, a multidisciplinary orthogeriatric pathway was introduced focusing on surgery within 48 hours, early geriatric assessment, delirium prevention, avoidance of delays due to clopidogrel, and osteoporosis management. Outcomes assessed included time to surgery, postoperative delirium, length of hospital stay, mortality, and osteoporosis treatment. Comparative analysis between pre- and post-intervention groups was performed using chi-square and Fisher's exact tests.

Results: Mean time to surgery improved from 66.4(December) and 62.5(January) hours at baseline to 51.1(February) and 42.2(March) hours following intervention. Surgery within 48 hours increased significantly from 48.3% to 62.8%($p=0.0183$). Postoperative delirium decreased from 21.7% to 10.7%($p=0.0170$), while zoledronate administration improved from 65.1% to 76.6%($p=0.0379$). Average hospital stay reduced from 5 to 4.2 days, with no change in low in-hospital mortality.

Conclusion: Implementation of a multidisciplinary orthogeriatric pathway significantly improved timely surgery, perioperative outcomes, and secondary fracture prevention. This demonstrates that effective hip fracture care can be successfully introduced in resource-limited settings and expanded to improve care nationally.

Assessment of public knowledge and attitudes toward visual impairment in a selected city in Colombo, Sri Lanka

Fernando AG¹, Wickramasekara H², FS Abbasbhoy³, Fairuz MN³

¹*General Sir John Kotelawala Defence University, Sri Lanka*

²*University of Kelaniya, Sri Lanka*

³*Management and Science University, Malaysia*

Introduction: Visual impairment is an increasing global public health concern, and public knowledge and attitudes influence the social inclusion and quality of life of affected individuals. This study aimed to assess public knowledge and attitudes toward visual impairment among residents of Ratmalana, Sri Lanka, and evaluate whether age, a known risk factor for visual impairment, and whether familiarity and proximity to the School for the Deaf and Blind, in Ratmalana, were associated with awareness and perceptions.

Methodology: A descriptive cross-sectional study was conducted among 270 non-visually impaired adults in Ratmalana. Data was collected using self-administered questionnaires assessing socio-demographic characteristics, knowledge, and attitudes and participants were categorized into different knowledge and attitude levels. Chi-square tests, one-way ANOVA, and Games–Howell post hoc analysis was performed with significance set at $p < 0.05$.

Results: Majority were female (60.7%), employed (63.7%), married (42.6%), and had completed secondary education (47.8%). Attitude scores were significantly associated with marital status ($p = 0.007$), responses regarding the School for the Blind ($p = 0.001$), and age ($p = 0.010$). Participants aged 40–49 years demonstrated higher attitude scores than those aged 20–29 years. Knowledge scores were significantly higher among participants living closer to the School for the Blind ($p = 0.001$). Higher knowledge and positive attitudes were significantly associated ($p = 0.014$).

Conclusion: Public attitudes towards visual impairment were mostly influenced by age, marital status, and familiarity with the School for the Blind. These findings highlight the need for awareness programmes to improve knowledge and promote inclusion of individuals with visual impairment.

Barriers and Determinants of Glaucoma Medication Adherence Among Patients Attending the University Hospital Kotelawala Defence University Ophthalmology Clinic

Shajahan M¹, Dissanayaka DAK¹, Aluthge SD¹, Bandara SMSR¹, Alakolanga AGNK¹, Paranaliyange PK¹, Seneviratne SRDA, Anand P.

¹Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka.

Introduction: Glaucoma is a chronic progressive optic neuropathy and a leading cause of irreversible blindness. Adherence to intraocular pressure-lowering medications is essential to prevent permanent vision loss. Medication non-adherence remains a major challenge, influenced by behavioral, socio-demographic, economic, and healthcare factors. In Sri Lanka, data on adherence and patient barriers are limited. Identifying these factors is crucial to guide interventions that improve adherence and prevent disease progression.

Objectives: To identify barriers and determinants influencing adherence to glaucoma medication among patients attending the University Hospital Kotelawala Defence University ophthalmology clinic.

Methods: A descriptive cross-sectional study was conducted from March to September 2025 at the UHKDU Ophthalmology Clinic among 119 glaucoma patients aged ≥ 18 years on treatment for at least six months. Participants were recruited via convenience sampling and interviewed using a pre-tested questionnaire in Sinhala, Tamil, or English. Medication adherence was assessed with the Morisky Medication Adherence Scale (MMAS-8). Socio-demographic, economic, and clinical data were analyzed using descriptive and inferential statistics, with chi-square tests for associations ($p < 0.05$).

Results: Among participants, 42.0% were non-adherent (MMAS-8 score < 6) and 58.0% adherent. Socio-demographic and economic factors showed no significant association with adherence, except regular clinic attendance, which was linked to better adherence. Forgetfulness (38.7%) and cost concerns (16.9%) were the main barriers. Most participants (76.5%) believed glaucoma causes temporary vision changes, while only 13.4% recognized the risk of permanent vision loss. Over half (56.3%) did not use structured reminder systems to support medication adherence.

Conclusions: Forgetfulness and the lack of reminder systems were the main barriers to medication adherence. Interventions focusing on patient education, simple reminder strategies,

and family support may improve adherence. Healthcare providers and policymakers should prioritize behavioral and supportive interventions to optimize long-term glaucoma management.

The Prevalence of Early Signs and Symptoms of Myopia and its Associated Factors in Grade 10 Adolescents from Selected Government Schools in Colombo District.

Vomal MGV¹, Wickramarathna SC¹, Anusarani UAA¹, Ranagala HTD¹, Pravienan S

¹*Faculty of medicine, University of Sri Jayawardenapura*

Introduction: Myopia is a common refractive error among school-aged children. Early detection of symptoms and associated risk factors is essential to prevent progression and visual impairment. Our objectives are to describe the prevalence of early signs and symptoms of myopia and associated factors in grade 10 adolescents from selected government schools in Colombo District.

Methodology: A cross-sectional study was conducted among 446 Grade 10 students selected using cluster sampling from three randomly chosen schools. Students with previously diagnosed eye conditions were excluded. Data were collected using a self-administered questionnaire, and visual acuity was assessed using a Snellen chart. Data analysis was performed using SPSS, with $p < 0.05$ considered statistically significant.

Results: Of the participants, 60.5% (n=446) were male, with a median age of 15 years (IQR = 1). The prevalence of early myopic symptoms was 39.9% (n=178), while 22.4% (n=100) had reduced visual acuity. Female sex was significantly associated with both symptoms ($p=0.020$) and poor visual acuity ($p=0.047$). Shorter sleep duration was significantly associated with symptoms ($p=0.006$) and reduced acuity ($p<0.001$). Lack of rest during study sessions was associated with symptoms ($p=0.041$). Adherence to the 20-20-20 rule showed a protective effect, being associated with fewer symptoms ($p=0.007$) and better visual acuity ($p=0.027$). Frequency of eye check-ups was also significantly associated with both outcomes ($p<0.001$).

Conclusion: There is a considerable burden of early myopia among adolescents. Modifiable behavioral factors play a key role, and adherence to preventive practices such as adequate rest and the 20-20-20 rule may reduce risk.

Sight-threatening diabetic retinopathy in Sri Lanka - a comprehensive analysis of behavioral predictors and barriers

Weerakoon KGSH¹, Gunasekara HMEH¹, Minsandee HWM¹, Gowryshanker Y¹, Sameera JF¹, Matthias AT², Prathapan S³

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

²*Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

³*Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

Introduction and Objectives: Diabetic Retinopathy (DR) is a major microvascular complication of Diabetes Mellitus (DM). Sight-threatening diabetic retinopathy (STDR) encompasses severe non-proliferative DR, proliferative DR, and clinically significant macular edema. This study aimed to describe the proportion of STDR and identify associated factors among patients with DR attending a selected teaching hospital eye clinic in Sri Lanka.

Methods: A descriptive cross-sectional study was conducted using a systematic random sampling method. Data were collected using structured, interviewer-administered questionnaires. Knowledge, attitude, practices were scored, graded, and associations were examined using the chi-squared test; $p < 0.05$ was considered statistically significant. The total sample size was 330.

Results: STDR was present in 35.8% of the participants, whereas 64.2% had non-STDR. Good DM knowledge ($p = 0.038$) and DR knowledge ($p = 0.003$) were associated with higher STDR proportions. Overall attitudes towards DM and DR were largely favorable, and neither was significantly associated with STDR. However, poor DR-related practices ($p = 0.022$) and barriers among 38.8% of patients who missed appointments ($p < 0.001$) were significantly associated with STDR.

Conclusions: STDR affects 35.8% of patients with DR who attended a tertiary eye clinic. Poor DR-related practices and barriers to eye care were the significant associated factors. To prevent vision loss, clinical barriers must be reduced, and patients must be educated from the time of diagnosis. These findings provide important evidence for developing clinical protocols and public health policies in the Sri Lankan context.

Comparative Analysis of Epidemiological Research Output: Metabolic Dysfunction-Associated Steatotic Liver Disease vs. Alcohol-Associated Liver Disease

Silva BK¹, Senadheera DP¹, Karunanayake RC¹, Niriella MA¹ (L/2703/3), de Silva J¹, de Silva T²

¹*Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka*

²*Faculty of Business, University of Moratuwa, Katubedda, Sri Lanka*

Introduction and Objectives : Metabolic dysfunction associated steatotic liver disease (MASLD) and alcohol-associated liver disease (ALD) are leading causes of chronic liver disease. This bibliometric analysis compares epidemiological research output between MASLD and ALD to highlight gaps and funding priorities.

Methods : Epidemiological studies on MASLD and ALD (2000-2025) were identified. Data included year, geography, income level, WHO region, citations, and funding. Analyses used the chi-square test, t-tests, and compound annual growth rate (CAGR).

Results: 324 studies (292-MASLD, 32-ALD, 9-both) were included. MASLD had higher volume (292 vs 32) and annual output (13.9 vs 1.5) ($p < 0.001$). CAGR was 14.5% for MASLD (2005-2025) vs 25.9% for ALD (2015-2025) ($p = 0.35$). MASLD studies were mostly single-region (2.1% multi-region), while ALD was more multi-regional (21.9% of ALD papers) ($p < 0.001$). High-income countries dominated (58.6% MASLD, 71.9% ALD), with no ALD studies from low-income countries (0.0% vs 1.03% MASLD; $p < 0.001$). Mean citations were higher for MASLD (30.42 vs 9.19; $p < 0.001$), but year-normalised citations were similar (3.97 vs 4.14; $p = 0.91$). ALD had higher funding rates (31% vs 16%; $p = 0.04$). MASLD relied more on primary data (68.8% vs 25.0%; $p < 0.001$), whereas ALD relied more on secondary sources. Sample sizes did not differ ($p > 0.47$). ALD papers trended toward Q1 journals (71.9% vs 52.7%; $p = 0.08$).

Conclusions: Despite higher volume, MASLD research reveals major gaps in low- and middle-income countries and a lack of multi-regional studies. ALD, though smaller in output, has a broader international scope and better funding. Both remain understudied in low-income settings, underscoring the need for focus in high-burden regions.

Liver failure and patterns of multiorgan involvement in fatal dengue: findings from national death analysis, Sri Lanka, 2024

Wimalasundera AR¹, Perera MHMTS², Perera HNT², Kothalawala KGD², Lokunarangoda NC¹, Wimalasuriya SAH³, Bandara TD³, Samaraweera P³, Amarasekara J³, Ganeshan S⁴, Dheerasinghe DSAF³, De Silva S, Wijewickrama A¹, Idampitiya D²

¹*Faculty of Medicine, University of Moratuwa, Sri Lanka*

²*Centre for Research and Training- National Institute of Infectious Disease, Gothatuwa, Sri Lanka*

³*National Dengue Control Unit, Ministry of Health, Sri Lanka*

⁴*Colombo South Teaching Hospital, Sri Lanka*

Background: Sri Lanka has successfully reduced the dengue case fatality rate from 4.2% in 1996 to 0.05% in 2024 by improving patient care. Fatal dengue is commonly seen in prolonged shock followed by multiorgan failure. It is important to identify the pattern and course of organ injury to guide the targeted organ support.

Methods: We reviewed all dengue deaths reported in Sri Lanka in 2024 using data from clinical records evaluated by an expert review panel. Variables included demographics, comorbidities, warning signs, evidence of cardiovascular and liver failure, coagulopathy, renal and respiratory involvement, neurological complications, and organ support.

Results: Among 24 dengue fatalities in 2024, clinically significant hepatic involvement was the predominant organ phenotype. Acute liver failure was present in 16 cases. Hepatic involvement was frequently early: among 16 liver-failure cases, 4 were present at admission, and 7 were recorded within the first 24 hours and the early admission period. An additional six patients had severe hepatic involvement with aspartate aminotransferase (AST) or alanine aminotransferase (ALT) levels ≥ 1000 IU/L, three of whom were already at admission. Among the 22 cases with liver involvement, circulatory compromise was documented in 21, renal involvement/support in 12, respiratory involvement/support in 9, strict neurological manifestations in 8, and haemostatic/bleeding-coagulopathy features in all. Deaths without established severe hepatic involvement were found in two patients; one cardiac/shock-dominant death and one neurological-haemorrhagic shock pathway.

Conclusion: These findings suggest that fatal dengue in this cohort was predominantly a hepatic-centred multiorgan syndrome with coagulopathy.

An Assessment of Knowledge, Attitudes, Practices and Barriers to Telemedicine Among Adult Patients with Diabetes Mellitus at the National Hospital of Sri Lanka.

Liyanage K.L.D.C.N¹, Suvendiran S¹, Kalupahana M.N¹, Choda T¹, Ranasinghe J.M.S.D²

¹*Faculty of Medicine, University of Colombo*

²*Postgraduate Institute of Medicine*

Introduction and Objectives: Telemedicine adoption in Sri Lanka remains limited despite increasing digitalization. Diabetes requires regular monitoring and follow-up, making telemedicine important for its management. However, patients' knowledge, attitudes, practices, barriers, and associated factors remain poorly understood. This study assessed these factors regarding telemedicine among adult diabetic patients attending clinics at National Hospital of Sri Lanka(NHSL).

Methods: A descriptive cross-sectional study was conducted among 120 adult diabetic patients attending diabetic and medical clinics over one week in August-2025, using consecutive sampling. A validated pre-tested interviewer-administered questionnaire assessed socio-demographic and telemedicine-related factors. Data were analyzed using SPSS with descriptive statistics and chi-square testing. Variables were dichotomised according to expert opinion.. Ethical approval obtained from the Ethics Review Committee, Faculty of Medicine,University of Colombo.

Results: The response rate was 100%. Good knowledge of telemedicine and its use in diabetes care was observed in 41.7% and 44.2% of participants respectively. Attitudes were evenly distributed. Majority(93.3%) demonstrated poor current/past telemedicine practice, although 50% expressed interest in future practice. Hybrid model was preferred by 57%,while 26% preferred telemedicine over in-person consultations. Educational level was associated with past/current($p=0.006$), and future practices($p=0.005$), with higher education($\geq A/L$) correlating with better practices(Spearman's $\rho=0.265$ and 0.256 , respectively. Past/current practice was significantly associated with being unmarried(Spearman's $\rho=0.245$, $p=0.033$).

Conclusions: Telemedicine uptake among diabetic patients at NHSL remains suboptimal despite moderate knowledge and favourable attitudes. Improving patient education, digital literacy, and routine integration may enhance adoption and support chronic disease management in Sri Lanka.

PP091

Discordant Imaging and Histopathology in Rapidly Progressive Cholestatic Liver Disease: A Diagnostic Challenge within the Small-Duct PSC–Vanishing Bile Duct Syndrome Spectrum

Theannilawu S¹, Rajendra JCP¹, Rathnayake A¹, Senanayake M¹

¹Colombo South Teaching Hospital, Kalubowila

Introduction and Objectives: Cholestatic liver disease with normal biliary imaging presents a diagnostic challenge. Small-duct primary sclerosing cholangitis (PSC) and vanishing bile duct syndrome (VBDS) represent overlapping intrahepatic cholangiopathies. We describe a rapidly progressive case highlighting diagnostic discordance and clinicopathological evolution.

Method: A single-patient clinical evaluation was conducted including biochemical analysis, cross-sectional imaging, autoimmune and infectious screening, and liver histopathology, with post-mortem correlation.

Results: A 53-year-old male with diabetes presented with severe pruritus and progressive jaundice. Investigations showed marked cholestasis with elevated alkaline phosphatase and bilirubin, with preserved early synthetic function. Ultrasound and contrast-enhanced CT demonstrated no biliary dilatation or obstruction. Autoimmune and viral markers were negative. Initial liver biopsy revealed cholestatic injury with portal inflammation and early fibrosis. Despite supportive management and transplant planning, the patient deteriorated and died. Post-mortem examination excluded malignancy and demonstrated advanced bile duct injury with periductal fibrosis, duct loss, and evolving sclerosing cholangiopathy.

Conclusions: This case highlights that normal imaging does not exclude significant intrahepatic cholangiopathy. Small-duct PSC may progress rapidly to a ductopenic state resembling VBDS. Early liver biopsy and timely transplant evaluation are critical in aggressive cholestatic disease.

Clinical Characteristics, Histopathological Profile and Treatment Outcomes of Autoimmune Hepatitis: A Prospective Single Centre Cohort Study

Niriella MA^{1,2}, Karunanayake RC¹, Marasinghe SH², Chathurika AA², Dassanayake UB^{1,2}, Dassanayake AS¹, Thilakaratne SB^{1,2}, Siriwardana RC^{1,2}, Hewavisenthi JDS¹

¹*Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka*

²*Colombo North Centre for Liver Diseases, Ragama, Sri Lanka*

Introduction: Epidemiological and histopathological data on autoimmune hepatitis (AIH) from South Asian populations remain limited.

Methodology: This prospective, single-centre observational cohort study at Colombo North Centre for Liver Diseases, Ragama, enrolled adults (≥ 18 years) with biopsy-proven AIH. Patients with other known causes of liver disease or incomplete datasets were excluded. Demographic, serological, histological, treatment, and adverse event data were prospectively recorded and summarised using descriptive statistics.

Results : One hundred AIH patients were included in the analysis. Mean age at diagnosis was 49.3 years (median 51); Female: Male = 52:48. Mean follow-up was 30.6 months. Cirrhosis was

present in 21% at diagnosis, rising to 57% at follow-up. 68% presented symptomatically; 32% were incidental diagnoses. Autoimmune comorbidities included rheumatoid arthritis (12%) and thyroiditis (5%); MASLD co-existed in 13%. ANA positivity was 70%; elevated IgG (>1600 mg/dL) in 65%. Severe hepatocellular injury ($ALT > 5 \times ULN$) occurred in 33% (males 25%, females 40%).

Predominant histological features were plasma cell infiltration and interface hepatitis (both 86%), ballooning degeneration (42%), and lobular hepatitis (30%).

During induction, prednisolone was used in 59% and azathioprine in 67%. Azathioprine remained the maintenance backbone (75%), with MMF used in 18%. Key adverse events: cushingoid features (32%), new-onset diabetes (15%), leucopenia (15%), and MMF-related nausea/vomiting (50%).

Conclusion: This South Asian AIH cohort shows a balanced sex distribution, in contrast to Western female predominance. Near-universal interface hepatitis and plasma cell infiltration, significant cirrhosis progression, and high treatment-related toxicity underline the need for region-specific AIH profiling to guide patient-centred management.

Prevalence, Patterns, and Clinical Predictors of Oesophageal Motility Disorders: A Retrospective Study from a Tertiary Centre in Sri Lanka

Niruban S¹, Aryasingha S², Wickramasinghe N³

¹ *National Hospital of Galle, Galle, Sri Lanka*

² *National Hospital of Sri Lanka, Colombo, Sri Lanka*

³ *Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objective: Oesophageal motility disorders (OMDs) are an important cause of dysphagia and refractory reflux symptoms, yet data from South Asia remain limited. This study aimed to determine the prevalence, distribution, and clinical predictors of OMDs using high-resolution manometry (HRM) based on the Chicago Classification version 4.0 in a tertiary care setting in Sri Lanka.

Methods: We conducted a retrospective study of consecutively included adult patients who underwent HRM at the National Hospital of Sri Lanka between January 2020 and October 2025. Eligible patients aged ≥ 18 years with complete HRM studies were identified from the hospital database, while technically inadequate or incomplete studies were excluded. Demographic data, presenting symptoms, and HRM findings were extracted from clinical records. HRM studies were performed using water perfusion system with an HRM catheter (CE4-0061 Solar GI HRM by Laborie) and analysed using Laborie Medical Measurement Systems Software according to the Chicago Classification version 4.0. Descriptive statistics summarised prevalence and distribution, while associations between clinical variables and major motility disorders were assessed using multivariable logistic regression.

Results: A total of 107 patients were included (mean age 49.8 ± 18.6 years; 54.2% female). Dysphagia (56.1%) and reflux symptoms (42.1%) were the most common indications. Normal HRM, defined according to the Chicago Classification version 4.0 as normal oesophago-gastric junction relaxation and intact oesophageal peristalsis without evidence of a major motility disorder, was observed in 41.1% of patients. Among abnormal studies, ineffective oesophageal motility (19.6%) and absent contractility (18.7%) were most frequent, followed by type II achalasia (12.1%) and oesophago-gastric junction outflow obstruction (6.5%). Integrated relaxation pressure (IRP) was significantly higher in major motility disorders ($p < 0.001$). On multivariable analysis, dysphagia was an independent predictor of major motility disorders.

Conclusions: In this Sri Lankan cohort, most HRM studies were either normal or demonstrated minor motility disorders. Dysphagia is a key clinical predictor of major OMDs and should guide referral for HRM. These findings provide locally relevant data to improve patient selection in resource-limited settings.

Validation of FIB-4 among South Asians with MASLD and identification of the optimal cutoff to screen for advanced fibrosis

Mettananda KCD¹, Madhubhashini A², Ranaweera L, Fernando JSU¹, Pathmeswaran A³, Dassanayake AS¹, Ranawaka C²

¹*Department of Pharmacology, Faculty of Medicine, University of Kelaniya, Sri Lanka*

²*Gastroenterology and Hepatology clinic, Colombo North Teaching Hospital, Sri Lanka*

³*Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka*

Introduction and Objectives: Metabolic-dysfunction-associated steatotic liver disease (MASLD) screening protocols recommend FIB-4 cutoffs of 1.3 and 2.0 in individuals < 65 and >65 years based on data of Western populations. However, these cutoffs seem to underestimate the risk of significant fibrosis (SF) in South Asians. We aimed to validate the FIB-4 in South Asians and identify optimal cutoffs for predicting SF.

Methods: We studied 966 consecutive patients with MASLD who underwent Vibration-Controlled Transient Elastography (VCTE) at a tertiary care hospital in Sri Lanka from November 2024-2025. We validated VCTE-diagnosed SF with FIB-4 predictions. SF was defined as liver stiffness measure (LSM) ≥ 8 kPa, measured by VCTE. We identified optimal FIB-4 cutoffs for predicting SF in individuals ≤ 65 and >65 years old using receiver-operating characteristic (ROC) curves. We validated the new cutoffs in an external sample (n=160) of South Asians.

Results: In the validation sample, FIB-4 had an area under the ROC of 0.73 (95% CI 0.70–0.76). The new FIB-4 cutoff for ruling out SF in ≤ 65 -year-olds did not change, but that in >65 year olds was 1.7 (sensitivity 80%, specificity 60%, PPV 76%, NPV 66%).

In the external validation sample, the new cutoff predicted 20% more patients with SF among 65+ year olds.

Conclusions: FIB-4 was acceptable in predicting SF in this South Asian sample with MASLD. The optimal FIB-4 cutoffs for ruling out SF for South Asians ≤ 65 and >65 years were 1.3 and 1.7, respectively.

Mild Crohn's disease in Sri Lanka: A nationwide study

Niriella M¹, Jayasena H², Gunarathna WPV³, Abeynayake DR⁴, Aryasingha S⁵, Kumarasena S⁶, Senanayake M⁷, Fernandopulle N⁸, Upanishad RGI⁵, Dinamithra NP⁹, Wijewantha HS⁹, Keppetiyagama C⁹, Balendran K¹⁰, Kajendran A¹⁰, Liyanaarachchi T¹¹, Subasinghe D⁸, Peiris R⁵, Subasinghe CE¹², Piyarathna C¹³, Kumara RAC¹⁴, Herath PR¹⁵, Kesavan T¹⁶, Thalagala E¹⁷, Perera KRPP¹⁸, Aponso T¹⁹, Vijitharan V²⁰, Rishikesavan V²¹, Wanniarachchi N³, Nirasha S³

¹Faculty of Medicine, University of Kelaniya, Sri Lanka,

²Faculty of Medicine, General Sir John Kotelawala Defence University, Rathmalana, Sri Lanka,

³Sri Lanka Society of Gastroenterology, Colombo, Sri Lanka,

⁴District General Hospital Embilipitiya, Sri Lanka,

⁵National Hospital Sri Lanka, Colombo, Sri Lanka,

⁶National Hospital Galle, Sri Lanka,

⁷Colombo South Teaching Hospital, Kalubowila, Sri Lanka,

⁸Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka,

⁹National Hospital Kandy, Sri Lanka,

¹⁰Jaffna Teaching Hospital, Jaffna, Sri Lanka,

¹¹District General Hospital, Gampaha, Sri Lanka, ¹²District General Hospital Matara, Sri Lanka,

¹³Teaching Hospital Kurunegala, Sri Lanka,

¹⁴Colombo North Teaching Hospital, Ragama, Sri Lanka,

¹⁵District General Hospital Pollonaruwa, Sri Lanka,

¹⁶District General Hospital Kegalle Sri Lanka,

¹⁷District General Hospital Chilaw, Sri Lanka,

¹⁸District General Hospital Negambo, Sri Lanka,

¹⁹Army Hospital Colombo, Sri Lanka,

²⁰Teaching Hospital Batticaloa, Sri Lanka,

²¹Teaching Hospital Kaluthara, Sri Lanka.

Introduction : Crohn's disease (CD) demonstrates marked geographic variation in phenotype. This nationwide study aimed to characterise the clinical features, treatment patterns, and outcomes of mild CD in Sri Lanka.

Method: A prospective, multi-centre observational study was conducted from January to October 2025 across 18 tertiary centres in Sri Lanka. Patients with mild CD were followed for at least 12 months and compared with those with moderate-to-severe disease. Data included demographics, laboratory parameters, endoscopic findings, treatment patterns, and outcomes.

Results: Mild CD was observed in 15 out of 215 patients (7.0%). It was predominantly seen in females (67.7%), with a mean age of onset of 40.5 ± 11.2 years. Only 13.3% reported a family history of CD. The main clinical presentations were subjective weight loss (100%) and diarrhoea (100%), followed by abdominal pain (73.1%) and anaemia (20%). Most cases involved the colon (86.6%). Extra-intestinal manifestations were absent in all mild CD patients. 13.3% achieved clinical remission with steroid therapy alone, 60.0% required early escalation to immunomodulators, and 26.7% were treated with biologics. Disease progression to moderate-severe CD occurred in 26.7% of patients over the 12-month follow-up period.

Conclusion: Mild CD in Sri Lanka is uncommon, predominantly affects females, and shows a colonic predilection with absent extraintestinal manifestations. While most patients respond to conventional therapy, a substantial proportion progress within one year, highlighting the need for close monitoring and suggesting potential genetic, environmental, or dietary modifiers influencing disease course in this population.

Long-Term Outcomes of Inflammatory Bowel Disease in a Sri Lankan Cohort: ≥ 8 Years of Follow-Up Data from the SLSG Sri Lanka IBD National Registry (SLSG-SLIBDNR)

Niriella M¹, Jayasena H², Gunarathna WPV³, Abeynayake DR⁴, Aryasingha S⁵, Kumarasena S⁶, Senanayake M⁷, Fernandopulle N⁸, Upanishad RGI⁵, Dinamithra NP⁹, Wijewantha HS⁹, Keppetiyagama C⁹, Balendran K¹⁰, Kajendran A¹⁰, Liyanaarachchi T¹¹, Subasinghe D⁸, Peiris R⁵, Subasinghe CE¹², Piyarathna C¹³, Kumara RAC¹⁴, Herath PR¹⁵, Kesavan T¹⁶, Thalagala E¹⁷, Perera KRPP¹⁸, Aponso T¹⁹, Vijitharan V²⁰, Rishikesavan V²¹, Wanniarachchi N³, Kusumpokuna A³, Senanayake H³

¹Faculty of Medicine, University of Kelaniya, Sri Lanka,

² Faculty of Medicine, General Sir John Kotelawala Defence University, Rathmalana, Sri Lanka,

³Sri Lanka Society of Gastroenterology, Colombo, Sri Lanka,

⁴District General Hospital Embilipitiya, Sri Lanka,

⁵National Hospital Sri Lanka, Colombo, Sri Lanka,

⁶National Hospital Galle, Sri Lanka,

⁷Colombo South Teaching Hospital, Kalubowila, Sri Lanka,

⁸Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka,

⁹National Hospital Kandy, Sri Lanka,

¹⁰Jaffna Teaching Hospital, Jaffna, Sri Lanka,

¹¹District General Hospital, Gampaha, Sri Lanka, ¹²District General Hospital Matara, Sri Lanka,

¹³Teaching Hospital Kurunegala, Sri Lanka,

¹⁴Colombo North Teaching Hospital, Ragama, Sri Lanka,

¹⁵District General Hospital Pollonaruwa, Sri Lanka,

¹⁶District General Hospital Kegalle Sri Lanka,

¹⁷District General Hospital Chilaw, Sri Lanka,

¹⁸District General Hospital Negambo, Sri Lanka,

¹⁹Army Hospital Colombo, Sri Lanka,

²⁰Teaching Hospital Batticaloa, Sri Lanka,

²¹Teaching Hospital Kaluthara, Sri Lanka.

Introduction: We characterised long-term disease progression in a Sri Lankan cohort of inflammatory bowel disease (IBD) patients.

Method: Confirmed ulcerative colitis (UC), Crohn's disease (CD), or IBD-unclassified (IBD-U) with ≥ 8 years of follow-up in the national registry were included. Baseline demographics, Montreal classification, treatment history, surgical outcomes, extra-intestinal manifestations (EIMs) and colorectal malignancy were recorded.

Results: 222 patients (UC-73.9%, CD-24.8%, IBD-U-1.4%, 55.9%-female) were followed for a median of 13 years. The median age at diagnosis was 37 years (UC: 40 years; CD: 29 years). Diagnostic reclassification occurred in 3.6%, more frequently in CD (10.9% vs. 1.2%; $p < 0.01$). Appendectomy was significantly more common in CD (9.1% vs. 1.8%; $p = 0.02$).

Within UC, proctitis (E1) was the most common (25.6%), and most patients had mild disease (54.3%). In CD, ileocolonic involvement (L3) predominated (23.6%), with 7.3% having perianal

disease. EIMs were present in 53% (arthritis/arthralgia-41.9%, ocular-20.8%, dermatological-20.8%).

Prolonged remission was achieved in 86.5% of patients. UC management relied predominantly on 5-aminosalicylates (sulfasalazine: 80.5%; mesalazine: 16.6%). CD patients frequently required azathioprine (80% vs 42.1% in UC; $p<0.01$) and biologics (infliximab: 20% vs 4.3%; $p<0.01$; adalimumab: 9.1% vs 0%; $p<0.01$). IBD-related surgery was required in 15.3% of all patients, more in CD (40% vs 7.3%, $p<0.001$). CD-specific procedures included ileal resection (14.5%), subtotal or total colectomy (18.2%), and perianal surgery (7.3%). Colorectal cancer occurred in only 0.1%.

Conclusions: This IBD cohort from Sri Lanka demonstrates substantial rates of disease progression, therapeutic escalation, and surgical intervention over ≥ 8 years of follow-up.

Association of polygenic risk score (PRS) with Advanced Liver Disease in patients with Metabolic-dysfunction associated Steatohepatitis (MASH): evidence from a Sri Lankan cohort.

Samarasinghe SASM¹, Hewage AS¹, Siriwardana RC², Tennekoon KH¹, Niriella MA², Silva SD¹, Abeysuriya V¹

¹ *Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo.*

² *Colombo North Center for Liver Diseases, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka.*

Background: Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) is gradually evolving and Metabolic Dysfunction-Associated Steatohepatitis (MASH) is identified as it's progressive stage. MASH can get advanced to cirrhosis and hepatocellular carcinoma (HCC). MASLD progression is influenced by both genetic and non-genetic factors. Unhealthy and sedentary lifestyle practices in the current Sri Lankan population may have influenced a growing population at risk of MASLD.

Methodology: This study was comprised of cases (n=73) with MASH-related advanced liver diseases compared with age, BMI and sex-matched early-stage liver disease cases (n=50). Genetic variants in three common genes which were previously reported to be associated with MASLD as *PNPLA3*, *TM6SF2*, and *MBOAT7* genes were evaluated, and a polygenic risk score (PRS) was developed to assess the overall genetic influence on advanced liver diseases in a MASH background.

Results: *PNPLA3* rs738409 (OR: 3.294, 95%CI 1.516-7.156) and *PNPLA3* rs2281135 (OR: 2.446, 95%CI 1.148-5.213) were reported to be significantly associated with MASH-related advanced liver disease. The PRS was independently associated with advanced disease severity, age and diabetes status in a multivariable analysis.

Conclusions: These findings evident the collective genetic influence on the susceptibility to MASH-related advanced liver diseases in the Sri Lankan context, supported by the PRS for the first time in a Sri Lankan study.

Use of Intravenous Infliximab in The Management of Paediatric Inflammatory Bowel Disease: A Single-Center Experience

Samaranayake M¹, Hathagoda W^{1,2}, Rajindrajith S^{1,2}

¹Department of Paediatrics, Faculty of Medicine, University of Colombo, Sri Lanka

²Lady Ridgeway Hospital for Children, Colombo 08, Sri Lanka

Introduction and Objectives: Infliximab is an anti-TNF agent utilized for various indications in the management of paediatric inflammatory bowel disease (PIBD). This study aims at describing the utility of infliximab in a cohort of PIBD patients followed up in a tertiary care facility in Sri Lanka.

Methods: A retrospective descriptive study with an analytical component was carried out using clinic records of the gastroenterology clinic of Lady Ridgeway Hospital for Children. Data was analyzed using SPSS version 25.

Results: Out of 141 patients 47.5% (67/141) have received infliximab. 50.7% of them were females. Mean age at the diagnosis was 8.48 ± 4.47 years. Mean time duration between the diagnosis and starting infliximab was 1.2 ± 2.14 years. Late onset disease was common (50.7%, 34/67). Prevalences of Crohn's disease (CD), ulcerative colitis (UC), and IBD-unclassified (IBD-u) were 68.7% (46/67), 26.9% (18/67), 4.5% (3/67) respectively.

Peri-anal disease was present in 19.4 (13/67). Growth failure was present in 67.2% (45/67). 55.2% (37/67) still receive infliximab. 20.9% (14/67) have achieved clinical remission without requiring steroids for maintenance after completing the course of infliximab. 9.0% (6/67) showed poor response. 6.0% (4/67) developed hypersensitivity reactions. 9.92% (14/141) received more than one biologic.

Late onset disease ($p=0.013$), absence of severe flare-ups in UC ($p=0.035$), and higher age at the diagnosis ($p=0.034$) were associated with better response.

Conclusions: Infliximab is continued in a majority as the maintenance therapy. Minority showed a poor response and required complete cessation or multiple biologics. Extensive and severe disease and early onset predicted poorer response.

Assessing the Prevalence and Disease-Modifying Role of *HSD17B13* rs72613567(A-ins) Polymorphism in Metabolic Dysfunction-Associated Steatotic Liver Disease in a Sri Lankan Cohort

Jayasinghe WV¹, Padaniya AGPM², Premawardhena AP³, Nawagamuwa IK¹, Nandasena CK¹, Senadeera SPNN¹, Karunanayake RC³, Silva BM³, Senadheera HMDP³, Wijesingha IP³, Dharmarathne HASG⁴, Niriella MA³, Perera IC¹

¹ Department of Zoology and Environment Sciences, Faculty of Science, University of Colombo, Sri Lanka.

² Department of Anatomy, Faculty of Medicine, University of Kelaniya, Sri Lanka.

³ Department of Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka.

⁴ Department of Statistics, Faculty of Science, University of Colombo, Sri Lanka.

Introduction and objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is an emerging global health crisis. Several genetic factors have been identified as modulators of MASLD susceptibility and progression. Among them, *HSD17B13* rs72613567(A-ins) variant has been identified as a potential protective mutation. This study investigated the association of this protective genetic variant with MASLD in a Sri Lankan cohort of patients and its clinical implications.

Methods: A case-control study was conducted at the Gastroenterology Unit, Colombo North Teaching Hospital, Ragama, involving MASLD patients (n=207) and healthy controls (n=210). Genotyping was performed using Tetra-Primer Amplification Refractory Mutation System PCR and validated by Sanger sequencing. Statistical analysis between the MASLD cohort and controls was performed using Chi-square and two-proportion Z-tests. Furthermore, patients were stratified by the FIB-4 index and analyses were performed for each fibrosis groups.

Results: There was a significant association between the *HSD17B13* rs72613567(A-ins) variant and MASLD ($\chi^2 = 5.714$, $p = 0.017$) with a higher minor allele frequency in controls ($Z = 2.40$, $p = 0.008$, $OR = 0.59$). Analysis across disease stages showed significant differences between mild and advanced fibrosis groups ($\chi^2 = 6.500$, $p = 0.011$, $OR = 0.29$) and moderate and advanced fibrosis groups ($\chi^2 = 4.267$, $p = 0.039$, $OR = 0.07$), indicating reduced variant frequency with increasing disease severity.

Conclusion: Findings suggest, *HSD17B13* rs72613567(A-ins) variant confers protection against MASLD, particularly against progression to advanced fibrosis. Drawing from these findings, a specialized clinical management framework could be developed. This strategy emphasizes vigilant monitoring and proactive intervention for patients lacking the protective variant, facilitating a precision-based approach to mitigate MASLD-related complications.

Investigating the Association Between the GCKR rs1260326 (P446L) Variant with Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) in the Sri Lankan Population

Nawagamuwa IK¹, Padeniya AGPM², Premawardhena AP³, Jayasinghe WV¹, Nandasena CK¹, Senadeera SPNN¹, Karunanayake RC³, Silva BM³, Senadheera HMDP³, Wijesingha IP³, Dharmarathne HASG⁴, Niriella MA³, Perera IC¹

¹ Department of Zoology and Environment Sciences, Faculty of Science, University of Colombo, Sri Lanka.

² Department of Anatomy, Faculty of Medicine, University of Kelaniya, Sri Lanka.

³ Department of Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka.

⁴ Department of Statistics, Faculty of Science, University of Colombo, Sri Lanka.

Introduction and objectives: Metabolic Dysfunction Associated Steatotic Liver Disease (MASLD) is highly prevalent worldwide, with a high burden among South Asian populations. The *glucokinase regulatory protein* (GCKR) rs1260326 variant is a functional polymorphism causes Pro446Leu substitution, reducing the ability of GCKR to bind glucokinase and increasing disease risk. However, its role in disease progression in Sri Lankans remains unclear. This study investigated the association between the GCKR rs1260326 variant and MASLD in a Sri Lankan cohort.

Methods: A case-control study was conducted at the Gastroenterology Unit, Colombo North Teaching Hospital, Ragama. The study included healthy controls (n=207) and MASLD patients (n=207). Genotyping was performed using Tetra-Primer Amplification Refractory Mutation System PCR and validated by Sanger sequencing. Statistical analysis between the MASLD cohort and healthy controls was performed using Chi-square and two-proportion Z-tests. Furthermore, patients were categorised into three categories: mild, moderate and advanced fibrosis according to the FIB-4 index.

Results: The calculated mutant allele frequency (T>C) was 0.713 in our general population. There was a significant association of the GCKR rs1260326 genotype in the MASLD group (P=0.043, Odds Ratio (OR) 1.44, (χ^2) = 4.101) compared to the control sample. The two-proportion test suggests that the mutant allele is significantly associated with the moderate fibrosis group compared to the mild fibrosis group. (P 0.007, Z -2.44).

Conclusion: The GCKR rs1260326 variant was more prevalent in individuals with MASLD than in healthy controls and was significantly associated with moderate fibrosis, suggesting a role in MASLD susceptibility and disease progression.

Coordination vs. Force: Evaluating Biomarkers of Biofeedback success in Dyssynergic Defecation

Dissanayake PG¹, Wickramasinghe NA², Wickramasinghe DP¹, Perera MPM¹, Wannakuwatte RA¹

¹*Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction: Biofeedback (BF) therapy treats dyssynergic defecation (DSD) by correcting pelvic floor dyscoordination. This study evaluates whether BF success relies primarily on restoring neuromuscular coordination (pattern normalization) or improving mechanical propulsive forces (pressure gradients).

Methodology: A prospective cohort of 37 DSD patients underwent baseline and follow-up high definition three-dimensional anorectal manometry alongside standard BF training. Categorical pattern normalization was evaluated using McNemar's Test, while continuous pressure gradient changes across three sequential visits were analysed using Wilcoxon signed-rank tests.

Results: The cohort (n=37; 62.2% female; mean age 48.6) initially presented with specific DSD subtypes: type 1 (48.6%, n=18), type 2 (8.1%, n=3), type 3 (40.5%, n=15), and type 4 (2.7%, n=1). By the second visit post-therapy, 16.2% (n=6) normalized, consisting specifically of two Type 1 patients (11.1%) and four Type 3 patients (26.7%). Of seven patients attending a third visit, one additional Type 1 patient normalized. Overall, 18.9% (n=7) achieved a statistically significant normalization of their defecation pattern (McNemar exact test, p=0.016). Conversely, quantitative recto-anal pressure gradients showed no significant changes from baseline to visit two (Wilcoxon Z=-0.656, p=0.512) or between visits two and three (Z=-1.521, p=0.128).

Conclusions: Biofeedback therapy was effective in normalizing dyssynergic defecation patterns, with a statistically significant improvement in visual manometric pattern from baseline to follow-up. This improvement occurred despite no significant change in quantitative recto-anal pressure gradients (p=0.512 and p=0.128 at visits two and three, respectively), indicating that BF therapy achieves its therapeutic effect by restoring qualitative neuromuscular coordination rather than by increasing raw propulsive force.

Beyond Portal Hypertension: The Unusual Tale of Chylous Ascites

Yatapana N.A¹, Subasinghe S.A.S.P.¹

¹*General Hospital Sri Jayewardenepura, Kotte, Sri Lanka*

Introduction: Chylous ascites is a rare complication of advanced chronic liver disease (ACLD), occurring in 0.5–1% of patients with cirrhosis. It results from lymphatic leakage secondary to severe portal hypertension and requires exclusion of secondary causes, particularly malignancy. We report a rare case of chylous ascites complicating ACLD secondary to seronegative autoimmune hepatitis.

Case Presentation: A 69-year-old female with type 2 diabetes mellitus and hypothyroidism was diagnosed with ACLD during evaluation for anemia and thrombocytopenia. She developed clinically significant portal hypertension with esophageal varices, portal hypertensive gastropathy, recurrent upper gastrointestinal bleeding, and gastroparesis. Viral hepatitis, tuberculosis, HIV, autoimmune serology, and tumour markers were negative. Liver biopsy demonstrated chronic active hepatitis with early fibrosis, consistent with seronegative autoimmune hepatitis. She was initially treated with corticosteroids followed by azathioprine as the maintenance therapy. Two months later, she developed dyspnea, progressive abdominal distension, bilateral lower-limb oedema. Ascitic fluid was characteristic milky appearance, a serum–ascites albumin gradient (SAAG) of 1.85 g/dL, protein of 0.9 g/dL, and markedly elevated triglyceride levels (300mg/dL), confirming chylous ascites. Cytology, bacterial cultures, and mycobacterial studies were negative. Contrast-enhanced CT demonstrated ACLD with severe portal hypertension and ascites without portal vein thrombosis, lymphatic obstruction, or intra-abdominal malignancy. Upper gastrointestinal endoscopy confirmed esophageal varices and portal hypertensive gastropathy.

Conclusion: Chylous ascites is a rare manifestation of portal hypertension in ACLD and should need exclusion of secondary causes. Early recognition and multidisciplinary management, including dietary modification, medium-chain triglycerides, therapeutic paracentesis with albumin, diuretics, and treatment of the underlying cause for ACLD, can achieve symptomatic improvement despite advanced portal hypertension.

High-resolution oesophageal manometry in adults with persistent dysphagia following upper gastrointestinal endoscopy: Preliminary findings from a prospective Sri Lankan tertiary-care study.

Galhena TD², Wickramasinghe NA², Ariyasinghe VJS¹, Devanarayane NM³

¹ *Department of Gastroenterology & Hepatology, National Hospital of Sri Lanka*

² *Faculty of Medicine, University of Colombo*

³ *Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Adult-onset dysphagia is associated with substantial morbidity, nutritional compromise, and impaired quality of life. Major oesophageal motility disorders, including achalasia, are frequently underdiagnosed as conventional investigations may fail to detect functional abnormalities. High-resolution oesophageal manometry (HRM), interpreted using the Chicago Classification v4.0, is the diagnostic gold standard; however, published Sri Lankan data remain limited. This study aimed to characterize HRM findings and clinical features among adults presenting with persistent dysphagia.

Method: An ongoing prospective observational study was conducted at the National Hospital of Sri Lanka. Consecutive adults aged 18–70 years with dysphagia were recruited following informed consent. Demographic characteristics, symptom profile, and quality-of-life measures were assessed using interviewer-administered questionnaires. HRM findings were interpreted according to the Chicago Classification v4.0, and upper gastrointestinal endoscopy findings were recorded.

Results: Ninety patients completed baseline assessment. Mean age was 52.9 years and 58.9% were female. Dysphagia was the predominant symptom (86.0%), with a mean duration of 4.2 years. Despite prior endoscopic evaluation in 95.6% of patients, HRM identified abnormal oesophageal motility in 68.9%. Absent contractility (27.8%) and Type II achalasia (20.0%) were the most frequent abnormalities. Patients with major motility disorders had greater symptom severity, dietary limitation, and poorer perceived health status.

Conclusions: Preliminary findings demonstrate a high burden of oesophageal motility disorders among adults with persistent dysphagia. HRM provided substantial diagnostic yield beyond conventional investigations, supporting its integration into dysphagia evaluation pathways in Sri Lankan and other South Asian healthcare settings.

“Awareness About The Protection of Children From Sexual Offences Act Among Health Care Professionals And Their Role In The Care Of Child Sexual Abuse Victims”

John J

Introduction: Child sexual abuse is prevalent worldwide. Many medical professionals feel uncomfortable or lack the skills required to manage cases of sexual abuse. To assess the extent of knowledge, attitude and practice (KAP) regarding the Protection of Children from Sexual Offences Act 2012 amongst healthcare professionals.

Methods: This cross-sectional study was conducted in a tertiary care teaching hospital in Eastern India. After pre-testing, medical professionals were administered a questionnaire containing sections on knowledge, attitude and practice, including health care workers' role in managing CSA victims. Statistical analysis was done using STATA software.

Results: Out of a total of 403 medical professionals who participated - in the knowledge category, >60% did not know the age for obtaining consent from the child, the organization interested in monitoring and implementing the act, the conditions when compensation should be awarded to the child, and the punishment if the medical professional fails to report the case under the act. In the practice category, >90% did not do the following - provide first aid to the child before asking questions related to CSA, estimate the age of the child, hand over the evidence collected after examination to the parents or caregivers, follow up the child, nor provide a medical certificate to the parents or caregivers, when coming across a child with CSA. The attitude parameters were satisfactory.

Conclusions: The present study showed that the knowledge & practice of the POCSO Act amongst medical professionals were highly unsatisfactory.

Nutritional Interventions, Improvement in Nutritional Status, and Factors Associated with Recovery Among Children Under Five Years with Acute Malnutrition in Galle District, Sri Lanka

Chathurangika KGGK¹, Chandrasiri A²

¹*Post Graduate Institute of Medicine, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Regional Director of Health Services Office, Galle, Sri Lanka*

Introduction: Acute malnutrition remains a major public health challenge in Sri Lanka, with child nutrition indicators remaining stagnant despite ongoing interventions. Evidence on the effectiveness of these interventions and factors influencing recovery is limited. This study describes the nutritional interventions and factors associated with the recovery among affected children.

Methodology: A descriptive cross-sectional study was conducted among 430 children aged under five years diagnosed with acute malnutrition during National Nutrition Month 2022. Participants were selected from five randomly selected Medical Officer of Health areas in Galle. A pretested self-administered questionnaire and previous anthropometric records were used. Nutritional status at baseline, six months, and approximately twelve months was assessed using standard weight-for-height/length growth charts. Associations between selected factors and improvement in nutritional status were analyzed using the Chi-square test.

Results: Nutrition specific interventions included growth monitoring, nutrition education, supplementary food provision, and treatment referrals, Nutrition-sensitive activities included home gardening and financial management education. After six months, 38.0% of children improved in nutritional status. After twelve months, improvement increased slightly to 42.8%. No significant associations were observed between improvement in nutritional status and child or caregiver characteristics. However, two family-related factors having at least one sibling ($p = 0.036$) and having at least one younger sibling ($p = 0.012$) were significantly associated with improved nutritional outcomes.

Conclusion: Although multiple interventions were implemented, more than half of the children failed to improve after one year. Strengthening child-specific feeding interventions and improving monitoring systems may enhance nutritional outcomes.

A Novel Multi-Stage Comparison of Young Adults' Perceptions of Current, Transitional and Emerging Medical Biotechnologies in Colombo, Sri Lanka

Gunawardane HH¹, Sathsara WAS¹

¹*School of Life Sciences, Asian Institute of Business and Science, Sri Lanka*

Introduction: Socio-cultural determinants of medical biotechnology (MB) trust remain understudied outside Western contexts. In Sri Lanka, traditional, religious and nationalist ideologies shape scientific acceptance, yet youth MB trust remains unexamined. This study mapped perceptions of IVF (established), stem cell therapy (SCT, transitional), and 3D bioprinting (3DBP, emerging) among Colombo youth establishing a baseline for culturally sensitive health policy.

Methods: A cross-sectional, mixed-methods, trilingual online questionnaire was administered to 220 conveniently sampled young adults aged 18–30 in Colombo, across universities and professional networks. Measures included MB awareness and understanding, behavioral trust in IVF and SCT, and a Socio-Cultural Readiness Index for 3DBP summing binary-coded responses across four domains. Analyses (JASP: 0.95.4) included Wilcoxon signed rank and Chi-square tests, Spearman correlations, hierarchical logistic regression, and thematic analysis.

Results: Most participants trusted IVF (60.5%, $n = 133$; $p = .001$) but not SCT (61.7% distrust, $n = 136$; $p < .001$), with trust differing significantly between technologies ($p < .001$). 3DBP readiness clustered at mid-range, exceeding the threshold ($p < .001$), with socio-cultural barriers least prominent. Traditionalist and religious orientations were significant negative correlates of trust in both technologies, independent of awareness and understanding. Nationalist orientation was non-significant. Gender, religious involvement and affiliation predicted IVF trust; none predicted 3DBP readiness.

Conclusions: Socio-cultural barriers intensify as MB transitions from emerging to established, shifting public evaluation from pragmatic acceptance toward normative negotiation. Traditionalist and religious orientations persist as latent barriers. Culturally sensitive communication and ethically informed policy are essential for equitable MB integration in Sri Lanka and comparable Global South contexts.

Scrolling Time, Academic Performance and Mental Well-being of Medical Students in the Faculty of Medicine, University of Ruhuna

Eranda NLK¹, Muflique FS¹, Fasni MFSH¹, Fernando SVH¹, Gajanayaka GMAUL¹, Gamlath GMSW¹, Jayawardene AJPM²

¹*Faculty of Medicine, University of Ruhuna*

²*Medical Education Unit, Faculty of Medicine, University of Ruhuna*

Introduction and Objectives: Scrolling time, defined as repetitive non-productive browsing of digital content excluding academic activities, has become common among university students. Excessive scrolling may negatively influence academic performance and mental well-being, yet evidence among Sri Lankan medical undergraduates remains limited. This study aimed to assess scrolling time and its association with academic performance and mental well-being among medical undergraduates of the Faculty of Medicine, University of Ruhuna.

Method: A descriptive cross-sectional study with an analytical component was conducted among 470 medical undergraduates who had completed 2nd MBBS, 3rd MBBS Part I, and 3rd MBBS Part II examinations. Stratified sampling ensured proportional representation across academic years. Data were collected using a self-administered pre-tested online questionnaire. Mental well-being was assessed using the WHO-5 Well-Being Index. Associations were analysed using the chi-square test, with $p < 0.05$ considered statistically significant.

Results: Among participants, 79.4% reported scrolling for more than two hours daily. Higher scrolling time was significantly associated with poorer mental well-being ($\chi^2=378.764$, $p < 0.001$) and poorer academic performance ($\chi^2=424.878$, $p < 0.001$). Instagram and TikTok use showed stronger associations with lower mental well-being score ($\chi^2=353.040$, $p < 0.001$). Students practising strategies such as setting time limits, disabling notifications, and using separate devices for studying reported lower scrolling time.

Conclusion: Excessive scrolling time is strongly associated with poorer academic performance and lower mental well-being among medical undergraduates. Promoting healthier digital habits may support academic success and student well-being. Further institutional awareness programs may encourage digital behaviour among undergraduates.

The Prevalence of Stress and its Associated Factors Among University Undergraduates at the University of Kelaniya, Sri Lanka

Ilukwaththa IBD¹, Jagathsinghe HAU¹, Jayakody IU¹, Jayakody TAT¹, Jayalath LL¹, Pannala TC¹.

¹*Faculty of Medicine, University of Kelaniya.*

Introduction: Undergraduate students are constantly exposed to various psychosocial, academic, and environmental stressors that can compromise their mental health, academic performance and quality of life.

Objectives: To determine the prevalence of stress and its associated factors among students at the University of Kelaniya.

Methods: A descriptive cross-sectional study was conducted among 420 undergraduates of University of Kelaniya, randomly selected from all faculties in 2024 to assess stress levels using DASS 21 scale and associated factors using a structured questionnaire. Data analysed using descriptive statistics and the Chi-squared test.

Results: A total of 67.74% of participants responded to the survey, with the highest proportion of responses coming from the Faculty of Medicine (n = 97, 23.1%). Majority of participants were females (n=255,60.71%). The prevalence of stress among Kelaniya undergraduates were 13.6% (n=57), and females were more susceptible (n=37, 64.9%). Students of the Faculty of Computing and Technology had the highest prevalence of stress (n=16, 28.07%). Final year students (p < 0.001), students on scholarships(p < 0.001), students residing in hostels(p < 0.001), poor time management(p=0.001), poor financial stability(p < 0.001), peer and family related factors(p < 0.001), frequent interpersonal conflicts(p < 0.001), academic pressure(p < 0.001) and the influence of social media(p < 0.001) were significantly associated with stress.

Conclusion: Stress is an important consideration among university undergraduates with significant contribution from numerous internal (females, final year, type of faculty, academic year) and external factors (financial problems, family and peers, social media).

Exposure to cannabis promotion, the factors associated and the association with attitudes towards cannabis among GCE A/L students in the Western Province, Sri Lanka.

De Silva UTC¹, De Silva WTC¹, Deepaka KHGT¹, Dehara KAC¹, Deshapriya HGAK¹, Perera KMN²

¹*Faculty of Medicine, University of Kelaniya*

²*Department of Public Health, Faculty of Medicine, University of Kelaniya*

Introduction: Cannabis is a most commonly used illicit substance among Sri Lankan youth, with a lifetime prevalence of 3.1% among school going adolescents aged 13 to 17 years. Cannabis promotion through content that normalizing, portraying and encouraging cannabis use including influencer posts, news coverage, entertainment media and user generated content increasingly targets Sri Lankan adolescents, yet minimal research is available on its impact within this vulnerable group.

Objective: To describe the level of exposure to cannabis promotion, to determine the factors associated with exposure to promotion and the association with attitudes on cannabis among the GCE A/L students in the Western Province, Sri Lanka.

Methods: An analytical cross-sectional study was conducted among A/L students in large grouped tuition classes in Western Province, Sri Lanka. A multistage sampling method incorporating simple random sampling was used. Data collection was by a structured self-administered questionnaire. Exposure levels were categorized into low, moderate, and high based on tertile split method and described using descriptive statistics. Associations were analysed using chi-square tests.

Results: The study included 549 students, with a response rate of 100%. Exposure to Cannabis promotion was mainly via social media (99.1% n=544) and mass media (58.9% n=515). Sex ($\chi^2=90.891$, df=1, $p < 0.001$), study stream ($X^2= 48.018$, df=3, $p<0.001$) and district ($X^2=10.433$, df=2, $p=0.005$) were significantly associated with cannabis promotion exposure via friends whereas age was significantly associated with mass media exposure ($X^2=21.009$, df=2, $p < 0.001$). Overall, 44.4% (n=244) held negative attitudes, 40.2% (n=221) positive, and 10.5% (n=58) mixed. Social media exposure was significantly associated ($\chi^2=7.804$, df=2, $p=0.020$) with non-positive attitudes.

Conclusion: Exposure to cannabis promotion was high, especially via social media and mass media. This high exposure significantly linked to more non-positive attitudes. Interventions should focus on digital media regulation and awareness among high-risk groups.

Knowledge Regarding Abortion Among Adults Attending a Tertiary Care Hospital amid Ongoing Legal Discourse in Sri Lanka: A Cross-Sectional Study

Mendis WGG¹, Felician PMDSA¹, Hansanee PDA¹, Sateha HAMSS¹, Tissera HGTN¹, Ubeysekara NH², Seneviwickrama KLMD³

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

²*Youth, Elderly and Disabled Unit, Ministry of Health, Sri Lanka*

³*Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

Introduction and Objectives: In Sri Lanka, abortion is legally permitted only to save the mother's life, though recent discussions have explored limited additional exceptions. Legal restriction has been linked to unsafe abortion, and public awareness contributes to informed policy dialogue. This study described knowledge on legal permissibility and health risks of abortion, and identified associated factors among adults attending a tertiary care hospital outpatient department (OPD) in Sri Lanka.

Methods: A descriptive cross-sectional study was conducted among 371 adults (≥ 18 years) attending the OPD of Colombo South Teaching Hospital, selected via systematic sampling using a pre-tested, validated, interviewer-administered questionnaire. Knowledge was assessed using seven items on legal grounds for and risks of unsafe abortion; scores (0–9) were converted to percentages and dichotomised as 'Good' ($\geq 50\%$) or 'Poor' ($< 50\%$). Associated factors were tested using Chi-square test ($p < 0.05$).

Results: Most were female (62.8%), married (60.9%), Sinhalese (90.3%), Buddhist (75.7%), and educated to A/L or above (63.6%). Overall, 56.5% had 'Good' knowledge, which was significantly associated with A/L or higher education ($\chi^2 = 18.198$, $p < 0.001$) and prior reproductive health education exposure ($\chi^2 = 15.107$, $p < 0.001$); age, gender, marital status, ethnicity and religion showed no significant association.

Conclusion: Knowledge regarding abortion was suboptimal in nearly half of this hospital-based sample, particularly those with lower education and less reproductive health education exposure. Although these findings may not fully represent the general population, strengthening reproductive health education may improve understanding and contribute to policy dialogue on abortion in Sri Lanka.

National assessment of menstrual health, hygiene and period poverty in Sri Lanka: Knowledge, practices, lived experiences and equity gaps

Fernando WMPA¹, Batuwanthudawe BKR¹, Tennakoon GMJ¹, Wijesinghe KGSD¹, Wijesinghe MSD¹

¹*Health Promotion Bureau, Ministry of Health*

Introduction and Objectives: Menstrual health and hygiene affect health, dignity, education, work, and gender equity. Sri Lankan evidence remains limited. This study assessed knowledge, practices, access, and deprivation using a period poverty index (PPI).

Method: A national mixed-method study was conducted from June to September 2025. The survey included 3,010 women and girls aged 16 to 50 years, selected through stratified multistage cluster sampling. Qualitative data came from eight focus group discussions and 20 key informant interviews in urban, rural, and estate settings. The index covered product access, privacy, WASH, disposal, information, stigma, restrictions, and participation impacts.

Results: Pre-menarche awareness was absent among 50.0%, although 97.0% recognized menstruation as normal. Misconceptions persisted, with 42.0% viewing menstruating women as unclean. Disposable sanitary pads were used by 80.2%, and 94.0% reported handwashing after changing materials. Household WASH access exceeded 94.0%, but school gaps remained for soap, 79.0%, and disposal facilities, 76.0%. Menstrual discomfort affected 64.0%; among them, 51.0% took no action. Qualitative findings highlighted delayed information, stigma, restrictions, support, inadequate privacy, limited disposal, and normalized pain. The national PPI was 0.45, indicating moderate deprivation. Deprivation was highest for stigma and restrictions, 0.65. Inequities were greater in the estate sector (PPI=0.51), and among adolescents aged 16 to 19 years (PPI=0.53).

Conclusions: Sri Lanka shows positive patterns in product use and household WASH access. Period poverty is driven more by stigma, information gaps, privacy, sanitation, disposal, pain management, and restrictions than product access. Responses should prioritize adolescents, estate communities, schools, education, and support systems.

Qualitative study to explore the underlying causes of hesitancy to vaccines against epidemic-prone diseases among adults in Sri Lanka

Dharmasoma UWNK¹, Agampodi SB², Agampodi TC², Malith Eranda³, Bimali Sanjula³, Wickramasinghe WAND⁴

¹*Post graduate Institute of Medicine, University of Colombo,*

²*International Vaccine Institute, South Korea*

³*South Asian Clinical Toxicology Research Collaboration, Faculty of Medicine, University of Peradeniya, Sri Lanka*

⁴*Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

Introduction-Vaccine hesitancy toward epidemic-prone diseases among adults is influenced by complex social, cognitive, and experiential factors that require in-depth exploration. This study aims to explore the attitudes and underlying causes of vaccine hesitancy among adults regarding vaccines against epidemic-prone diseases in Anuradhapura district, Sri Lanka.

Methods-A qualitative study using 20 in-depth interviews was conducted in Anuradhapura District from August to September 2025. Participants were purposively selected to ensure maximum variation in age, sex, education, occupation, ethnicity, and levels of vaccine hesitancy following assessment by validated adult vaccine hesitancy scale for Sri Lanka (AVHS-SL). Data underwent inductive thematic analysis to identify patterns and underlying meanings.

Results-

Response rate was 100.0%. A total of 133 codes and 35 sub-themes generated nine major themes. Key themes included decision-making regarding adult vaccination, knowledge gaps, low self-efficacy, and differing attitudes towards booster vaccines. Trust and mistrust in vaccines emerged as central influences shaped by personal experiences and social networks. Vaccine misinformation and disinformation contributed substantially to hesitancy. Service-related factors, including accessibility and quality of care and participants' concerns regarding future disease threats and vaccine acceptance were highlighted. Suggested strategies included improving awareness, strengthening communication, and enhancing trust in healthcare services.

Conclusion-Adult vaccine hesitancy driven by multifaceted factors, including cognitive, social, and service-related influences. Addressing misinformation, improving health literacy, and strengthening trust in healthcare services are critical to reducing hesitancy toward vaccines against epidemic-prone diseases. The findings may reflect broader patterns of adult vaccine hesitancy in Sri Lanka and provide insights relevant for national immunization strategies.

PP114

Spatiotemporal Distribution of Chikungunya in Sri Lanka, 2025

Gunatilake AWPI¹, Hathamuna AI¹, Chandrasena H¹, Karunapema P¹, Tissera H¹

¹*Epidemiology Unit, Ministry of Health*

Introduction and Objectives: Chikungunya re-emerged in Sri Lanka in 2025 after a 16-year interval following the major 2006–2008 outbreak, highlighting ongoing vulnerability to arboviral transmission. Although not routinely notifiable, the 2025 resurgence demonstrated the need for enhanced surveillance and real-time spatial analysis to guide outbreak response. Here we describe the epidemiological characteristics of chikungunya cases reported using a digital surveillance system in Sri Lanka.

Method: An online notification platform integrating event-based surveillance was established. After a brief training sentinel reporting system was initiated in Colombo, and Gampaha, in late 2024 and expanded islandwide by early 2025. A three-tier digital architecture (Google Apps Script, MySQL database, and Google Data Studio dashboard) enabled real-time data capture, storage, and visualization. Backend data analysis was performed to generate trends by district, time period, and reporting source.

Results: The system captured clinical Chikungunya cases reported across the country. The highest average incidence of 36.15 cases per 100,000 population was reported from Jaffna district, followed by Kandy (8.31), Colombo (8.20), and Matara (6.39). It demonstrates a clear geographic spread from initial hotspots. Seasonal variation showed increased transmission during monsoon rainy periods, with clustering of cases following rainfall patterns.

Conclusions: A simple digital surveillance platform facilitated real-time spatiotemporal analysis, enabling early outbreak detection and more responsive public health interventions. Chikungunya transmission in Sri Lanka during 2025 demonstrated marked spatial clustering and seasonal variation, with rapid spread across multiple districts.

Beyond Individual Behaviour: A Qualitative Exploration of Sleep Hygiene Determinants among Medical Students in Sri Lanka

Gunatilake AWPI¹, Vithana PVSC²

¹*Epidemiology Unit, Ministry of Health, 2Family Health Bureau*

Background and Objectives: Sleep hygiene is influenced not only by individual behaviours but also by broader contextual and institutional factors. Medical students are particularly susceptible to sleep disturbances due to academic demands, psychosocial stress, and environmental constraints. This study aimed to explore the determinants of sleep hygiene among medical students in state universities in the Western Province of Sri Lanka, with a focus on both individual and structural influences.

Methods: A qualitative exploratory study using grounded theory principles was conducted. Six focus group discussions (FGDs) were conducted with 59 purposively selected medical students aged 21–26 years, ensuring diversity in gender and academic year. Data collection continued until thematic saturation was achieved, with no new concepts emerging from subsequent discussions. Data were collected using a semi-structured interview guide, audio-recorded, transcribed verbatim, and analyzed through iterative thematic analysis. Coding and theme development were conducted collaboratively by the principal investigator and expert researchers.

Results: Analysis generated five interconnected themes reflecting multi-level determinants of sleep hygiene. Students demonstrated awareness of sleep hygiene as a key determinant of academic performance, cognitive functioning, and emotional well-being. Individual-level facilitators included regular physical activity, meditation, and adherence to structured sleep routines. However, these were often constrained by academic workload, examination pressure, and excessive screen exposure. Environmental and institutional determinants, particularly inadequate hostel conditions and unsupportive academic schedules, were consistently highlighted as major barriers. Participants emphasized the interaction between personal habits and structural constraints in shaping sleep behaviours.

Conclusions: Sleep hygiene among medical students is shaped by a complex interplay of individual behaviours and broader institutional and environmental determinants. Effective interventions should move beyond individual-level advice and incorporate structural changes within university systems to improve sleep quality and overall student well-being.

Silent Thirst: Prevalence of Chronic Dehydration and Its Association with Health and Academic Performance among Sri Lankan Schoolchildren

Perera PUM¹, Sirithunga GDR¹, Jayaneththi DLMTS¹, Adhikari AAMH¹, Wangdi SL¹, Senadheera SPCM¹, Rodrigo GDI¹

¹*Faculty of Medicine, General Sir John Kotelawala Defence University*

Introduction And Objectives: Chronic dehydration, a sustained deficit in total body water, is an under-recognised condition associated with impaired physical, urinary, and cognitive health in children. Although its reported prevalence ranges from 33–66% internationally, data from Sri Lankan schoolchildren are scarce. This study aimed to determine the prevalence of chronic dehydration among Grade 10 students in the Ratmalana MOH area and examine its associations with academic performance, suspected urinary tract infection, and school-related factors, including access to drinking water and washroom facilities.

Methods: A cross-sectional analytical study was conducted among 128 Grade 10 students (14–15 years) selected using cluster and random sampling, following ethics approval and parental consent. Chronic dehydration was defined as urine specific gravity ≥ 1.020 in two consecutive samples. Suspected UTI was defined by pyuria (≥ 12 WBC/HPF) with organisms on urinalysis. Academic performance was assessed using Science and Mathematics GPA, and school-related and behavioural factors using a structured Knowledge, Attitude and Practice questionnaire. Associations were analysed using Chi-square tests and odds ratios.

Results: The prevalence of chronic dehydration was 72.7%. Chronic dehydration was significantly associated with poor academic performance (OR 3.47, 95% CI 1.45–8.30; $p=0.008$) and suspected UTI (OR 2.78, 95% CI 1.19–6.50; $p=0.030$). Inadequate washroom facilities (OR 15.33, 95% CI 1.72–136.49; $p=0.007$) and reduced water intake to avoid washroom use (OR 5.10, 95% CI 2.17–11.97; $p<0.001$) were also significantly associated with chronic dehydration.

Conclusions: Chronic dehydration is a common but overlooked health problem among Sri Lankan schoolchildren, with significant associations with poorer academic performance and suspected UTI. Ensuring adequate drinking water, child-friendly sanitation facilities, and promoting healthy hydration practices may improve both health and educational outcomes.

Nutritional status and the methods of nutritional rehabilitation in children with chronic liver diseases, attending the paediatric liver unit of Colombo North Centre for Liver Diseases.

Senevirathne S.M.D.S¹, Senevirathna K.A.T.S¹, Senevirathne H.M.N.M¹, Sewmini.P.N.I¹, Shakir A.S.M¹, Sovis W.P.A¹, Fernando M.P²

¹Faculty of medicine, University of Kelaniya

²*Department of Paediatrics, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Children with chronic liver disease (CLD) are highly susceptible to malnutrition and require proper nutritional assessment and optimization. This study aims to assess the nutritional status and nutritional rehabilitation methods in children with CLD including liver transplant candidates(LTC).

Methods: A descriptive cross-sectional study was conducted involving 116 children (3 months to 16 years) diagnosed with CLD. Nutritional status was assessed using body mass index (BMI) and mid-upper arm circumference (MUAC), and interpreted according to WHO standards. Other determinants of nutritional status and nutritional rehabilitation methods were assessed via an interviewer-administered questionnaire.

Results: Among the 116 children enrolled for the study, 37.9% were classified as malnourished based on BMI, whereas 43.1% were identified as malnourished using MUAC. Malnutrition had significant associations with poor appetite($p=0.034$), longer duration of the disease($p<0.001$), and poor quality of life($p <0.001$), while socioeconomic factors had no significant association. Only 24.1% of children received nutritional interventions including high protein/high calorie diets, formula feeding and tube feeding. Among the sub-cohort of liver transplant candidates (LTC;n=12), 66.7% were malnourished based on MUAC and nutritional interventions were more frequent in them compared to non-LTC patients (83.3% vs 17.3%, $p<0.001$)

Conclusion: Malnutrition is highly prevalent among children with CLD, particularly among LTCs. In assessing the nutritional status, MUAC may serve as a useful complementary tool in this population. Despite the high burden of malnutrition, nutritional rehabilitation remains limited, although LTCs are more likely to receive such interventions for pre-transplant optimization.

Sociodemographic characteristics and clinical spectrum of children with laboratory confirmed influenza infection in a tertiary care hospital in Sri Lanka

Ranasinghe MM¹, Modaragama AS¹, De Silva HHDNM³, Mettananda S^{1,2}

¹*Colombo North Teaching Hospital, Ragama, Sri Lanka*

²*Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka*

³*Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

Introduction and objectives: Influenza is a common viral infection in children, leading to significant morbidity. This study aims to describe the sociodemographic characteristics, clinical spectrum, and complications of children with influenza infection admitted to Colombo North Teaching Hospital, Ragama, Sri Lanka.

Method: This retrospective study was conducted at Colombo North Teaching Hospital, Ragama, Sri Lanka. All patients with serologically confirmed influenza infection admitted to paediatric wards between 01 January and 31 December 2025 were recruited. Data were collected by reviewing patient records and conducting telephone interviews with mothers.

Results: 94 children (male-55.3%, mean age-5.1±28 years) were recruited, of which 82(87.2%) had influenza A, 11(11.7%) had influenza B, and 1(1.1%) had coinfection with influenza A and B. A majority (63.8%) were admitted on the third day of illness, and 28(29.8%) reported comorbidities (asthma-17.0%, febrile seizures-5.3%). 36(38.3%) were from single-child families and 46(48.9%) and 12(12.8%) respectively were from families with two and three children. The monthly income was >LKR 100,000 in 41(43.6%) households. The most common clinical features were fever (98.9%), cough (85.1%), vomiting (36.2%), diarrhea (22.3%), abdominal pain (8.5%) and headache (4.3%). The disease course was complicated by exacerbation of asthma, pneumonia and sinusitis in 19.1%, 2.1% and 1.1% respectively. The majority (97.9%) was treated with Oseltamivir, and all patients recovered.

Conclusion: Among hospitalized patients with influenza, nearly 90% had influenza A infection. Fever, cough, vomiting, and diarrhea were the most frequent symptoms, and asthma exacerbation was the most frequent complication associated with the disease.

Cross-cultural Adaptation and Psychometric Validation of the Sinhala Brief Autism Mealtime Behaviour Inventory (BAMBI).

Bandara SH¹, Hettiarachchi S¹

¹*Department of Disability Studies, Faculty of Medicine, University of Kelaniya, Sri Lanka*

Introduction & Objectives: Mealtime behavioural difficulties are common among children with Autism Spectrum Disorder and may negatively affect nutrition, participation, and family routines. Early identification is important for timely intervention; however, Sri Lanka lacks a culturally appropriate Sinhala screening tool to assess mealtime behavioural problems in children with Autism Spectrum Disorder (ASD). Therefore, this study aimed to translate, cross-culturally adapt, and validate the Sinhala version of the Brief Autism Mealtime Behaviour Inventory (BAMBI) for detecting mealtime behavioural problems among children with ASD in the Sri Lankan context.

Methodology: This study was conducted with 30 parents of children with ASD aged 3–11 years. The translation and cultural adaptation process followed the guidelines provided by Beaton and colleagues (2000). Content validity was assessed with an eight-member multidisciplinary expert panel. Face validity was evaluated with three participants. Internal consistency was assessed using Cronbach's alpha. Concurrent validity was evaluated against therapists' clinical judgement by calculating sensitivity, specificity, and predictive values of the Sinhala BAMBI.

Results: The Sinhala BAMBI demonstrated excellent content validity, with I-CVI values above 0.87 and an S-CVI/Ave of 0.985. Internal consistency was acceptable (Cronbach's $\alpha = 0.773$). The tool showed high sensitivity (93%) and negative predictive value (91%), while specificity (68%) and positive predictive value (77%) were moderate. Subscale analyses demonstrated satisfactory psychometric performance, with sensitivity, specificity, and predictive values ranging from 72% to 100%.

Conclusion: The Sinhala version of the BAMBI demonstrates acceptable reliability, validity, and clinical usefulness as a parent-reported screening tool for identifying mealtime behavioural difficulties in children with ASD in Sri Lankan clinical settings.

Measurement of the body composition of infants aged 6-12 months old, using Deuterium dilution technique

Thushari Bandara^{1*}, Fernando GHS², Ubeysekara LB³, Thrimavitharana AM⁴, Manjula Hettiarachchi⁵, Sujeewa Amarasena⁵

¹*Faculty of Allied Health Sciences, University of Ruhuna, Sri Lanka*

²*District General Hospital, Matale, Sri Lanka*

³*Medical Officer of Health, Bope-Poddala, Galle, Sri Lanka*

⁴*Ministry of Health, Sri Lanka*

⁵*Faculty of Medicine, University of Ruhuna, Sri Lanka*

Introduction: Body composition (BC) is the percentage of fat, bone, water, and muscle in human body which provides a more accurate picture of health than weight or BMI alone. Early life BC critically programs diverse long-term health outcomes. This study was designed to measure the BC 6-12 months old Sri Lankan infants.

Methods: Healthy, infants (n=31, aged 6-12 months) were randomly recruited for study at well-baby clinics in Galle district. BC was measured using deuterium dilution technique. Weights and lengths of infants were measured using standard scales and an infantometer and 2 mL of pre-dose saliva samples were collected. Weight of 1mL of deuterium (99.8 atom%) was recorded with an accuracy of 0.0001g and administered orally to each infant. Post-dose saliva samples were collected after 3 hours. Saliva samples were analyzed by IRMS. BC was calculated using standard equations.

Results: Mean ($\pm$ SD) age of infants was 8.7 (2.0) months. Mean body weight and length of infants were 8.5 kg (1.0) and 71.3 cm (3.9), respectively. Mean total body water % (TBW), fat free mass (FFM), fat mass and % fat mass were 64.17% (5.27), 6.87 kg (0.89), 1.55 kg (0.56) and 18.3% (6.52). TBW, FFM and FM showed no significant differences between sexes.

Conclusions: This study demonstrates that BC in Sri Lankan infants is comparable to current international standards, while the %FM of infants are slightly lower than some high-income countries. These findings underscore the critical need for longitudinal BC data from developing countries to establish broader global standards.

Association between Iron deficiency Anemia and Febrile Seizures in Children: A Systematic Review and Meta-Analysis

Dissanayaka DMSM¹, Bopitiya SR¹, Hassan MHSM¹, Jayasundara RJMKA¹, Jayasooriya KAHS²

¹*Department of Paediatrics and Neonatology, Faculty of Medicine, University of Moratuwa*

²*Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Moratuwa*

Introduction and objectives: Iron deficiency anemia (IDA) may increase the risk of febrile seizures (FS) in children, although published evidence remains inconsistent. This systematic review and meta-analysis aimed to evaluate the association between IDA and FS.

Method: A systematic search of PubMed, Scopus, ScienceDirect, Web of Science and Google Scholar was conducted until December 2025. Pooled odds ratios (OR) with 95% confidence intervals (CI) were calculated, and subgroup analyses were performed. Heterogeneity was assessed using the I^2 statistic.

Results: A total of 17 studies enrolling 1632 children with FS and 1681 controls were included in the meta-analysis. The pooled OR using a random-effects model was 2.79 (95% CI: 1.85–4.21; $P < 0.001$), with a high heterogeneity of $I^2 = 83.2\%$. Subgroup analysis demonstrated that studies using ferritin-confirmed diagnostic criteria for iron deficiency anemia showed a OR 2.73 (95% CI: 1.52–4.90, $I^2 = 87\%$). Studies using MCV without ferritin showed a pooled OR of 2.24 (95% CI: 1.64–3.06, $I^2 = 0\%$). Studies using Hb with other iron indices showed 4.52 (95% CI: 1.62–12.66, $I^2 = 66.1\%$). In the subgroup analysis of the studies conducted in India, Bangladesh and Pakistan, OR was determined at 4.20 (95% CI: 2.54–6.97), 4.12 (95% CI: 2.08–8.18), and 2.60 (95% CI: 1.70–3.98), respectively, which revealed significant differences in this regard.

Conclusion: IDA is significantly associated with an increased risk of febrile seizures in children. Screening and appropriate management of IDA may be important in children presenting with febrile seizures.

Little hands, Safe lines - Reducing accidental peripheral IV cannula removal in young children: a quality improvement project

Dassanayake NSS¹, Gamage UIA¹, Dilakshika BGD¹, Jayasundara RJMKA¹, Hassan MHSM¹

¹*Faculty of Medicine, University of Moratuwa*

Introduction: Peripheral intravenous (IV) cannulation is one of the most common procedures in paediatric wards and is often associated with anxiety, discomfort, and distress in young children. Repeated accidental cannula removal may require multiple reinsertions, increasing procedural trauma and contributing to fear during future hospital visits.

This Quality Improvement (QI) project aimed to introduce a sustainable intervention to reduce accidental cannula removal and increase cannula dwell time in children aged 1 month to 5 years admitted to the Professorial Paediatric Unit of Maternity and Children's Hospital, Kalutara.

Method: Baseline data on accidental cannula removal and contributing factors were collected over two weeks. Interventions included a soft glove-like cannula covering made from children's socks and caregiver education on cannula care. Post-intervention data collection of two weeks assessed cannula removal rates and dwell time.

Results: Prior to intervention, 12 out of 54 IV cannulations were accidentally removed, giving a cannula removal rate of 22.2%. Among the removed cannulas, 4 were dislodged within 24 hours, while 66.6% remained in situ for more than 24 hours. Following intervention, accidental removals decreased to 6 out of 48 cannulations, reducing the cannula removal rate to 12.5%, demonstrating a 43.7% improvement. In addition, all accidentally removed cannulas after intervention had a dwell time greater than 24 hours, increasing the proportion of removed cannulas surviving beyond 24 hours from 66.6% to 100%.

Conclusion: Low-cost protective coverings and caregiver education reduced accidental cannula removal, improved dwell time, and may help minimise repeated painful procedures in young children.

Parental Knowledge and Practices regarding Urinary Tract Infection in Children in a Selected Population in Sri Lanka

Athapathu AS^{1,2}, Seneviratne PI¹, Weerasinghe WHASS¹, Fonseka TR¹, Thalgahagoda RS³, Mettananda S^{1,2}.

¹*Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka*

²*Colombo North Teaching Hospital, Ragama, Sri Lanka*

³*Department of Paediatrics, Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and Objectives: Urinary tract infections (UTI) are common in children. This study aims to describe the knowledge and practices regarding UTI among parents of children under 5 years in Gampaha district.

Method: A descriptive study was conducted in three MOH areas in Gampaha district, using stratified random sampling. Children <5years attending well-baby clinics during April 2026 were recruited. Data were collected using an interviewer-administered questionnaire to mothers and analysed using SPSS.

Results: Four hundred children (male-48.5%, Sinhalese-94.3%, mean age-34.6±19.6 months) were recruited, of which 28 had prior UTI. Mean maternal age was 32.2±5.3 years, and 70.5% were housewives. Only 35.5% mothers could name >2 UTI symptoms, and 12.8% knew >1 UTI complication. 49.3% could not name >1 UTI risk factors. On direct questioning, most identified inadequate fluid intake (98.8%) and withholding behaviour (87.8%) as risk factors for UTI. Only 45.8% knew constipation is a risk factor. A significantly higher proportion of mothers educated beyond AL and from higher social class had better knowledge of symptoms ($p<0.05$), complications ($p<0.05$) and risk factors ($p<0.05$) of UTI. Mothers whose children had previous UTI had better knowledge of symptoms ($p<0.05$) and complications ($p<0.01$), but not of risk factors ($p=0.76$). 68.8% claimed lack of awareness as reason for not practising UTI prevention measures.

Conclusion: Most mothers had poor knowledge on symptoms, complications and risk factors of UTI. Having a child with previous UTIs increased the knowledge regarding symptoms and complications of UTI, but not of risk factors.

Food Security and Malnutrition Among Children Between 6 Months to 17 Years in Rathmalana MOH Area: A Descriptive Study

Balalla VD¹, Lhamo N¹, Seneviratne MWNS¹, Dissanayake DMPS¹, Srikanth P¹, Rajawardana RWMDT¹, Dalpatadu SAC¹

¹*General Sir John Kotelawala Defence University, Sri Lanka*

Introduction and Objectives: Food insecurity and malnutrition continue to persist as a significant burden on Sri Lankan communities with children from low-income households being the most vulnerable.

Method: A descriptive cross-sectional study was conducted among 81 children aged 6 months to 17 years. Data was collected during a selected period. Children aged below 5 years was taken from the Maternal and Child Health clinics. Whilst the over 5-year-olds were taken randomly from selected households in each PHM area of the Ratmalana Medical Officer of Health area. An interviewer-based questionnaire including household income, Household Food Security Survey Module and Body Mass Index (BMI) was collected.

Results: Mean age of the children was 8.8 years and 7.4% of families had an income below the Sri Lankan poverty line. 13% of the below 5-year-old children were SAM and 6.66% were MAM.

Food security analysis revealed that 40.7% of the households had high food security whereas 59.2% had marginal to very low degrees of food security. Children's diets were found lacking in protein, with a high dependence on rice and vegetables and low intake of animal source proteins: fish (26.7%), meat (33.3%). A significant linear association was noted between household income and food security ($p=0.001$) but no significant association between household income and BMI ($p=0.414$).

Conclusion: The findings demonstrate that household food insecurity and inadequate diet diversity were prevalent with risk of malnutrition. The findings reflect how economic stress influences dietary choices before becoming evident in anthropometric outcomes.

Promotion of Tobacco and Alcohol at Inter-School Cricket and Rugby events to Male students attending schools in Colombo District.

Dhanushika GAN¹, Dharmathilaka NJ¹, Dharmawardhana YCP¹, Dilshani WATP¹, Dissanayaka DMRT¹, Dissanayake DKHMWDB¹, Athauda LK²

¹*Faculty of Medicine, University of Kelaniya*

²*Department of Public Health, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Cricket and Rugby are popular school sporting events well attended by underage school students, past students and well-wishers. Tobacco and alcohol are available at these events attended by school students under the legal purchase age of 21 years. This study aimed to describe the promotion of tobacco and alcohol at inter-school cricket and rugby events to male students attending schools in Colombo district.

Methods: A two-component mixed methods study was conducted. A desk review used a checklist to observe tobacco and alcohol promotion by active searching the first 10 social media posts of 10 relevant hashtags. Semi structured interviews were conducted among relevant stakeholders involved. Quantitative content analysis and Inductive content analysis were conducted respectively.

Results: Tobacco and/or alcohol products and branding were found on social-media posts (n=35) and videos (n=7). School boys in uniform were observed in three and adolescents were observed in 20 contents where tobacco/alcohol was used or advertised. Interviews were conducted among school students (n=7), past-pupils (n=4), and staff members (n=2) representing nine schools in the Colombo district. All stakeholders agreed that school students are directly or indirectly exposed to tobacco and alcohol use and promotions at these events. Although school authorities attempt to limit this exposure by segregating students by school uniform, teachers' supervision, they agree that these events create an environment conducive towards substance use for school students.

Conclusion: School students are exposed to tobacco and alcohol promotion at school sporting events. This study emphasizes the need for effective implementation of the existing regulations to limit such promotion towards school students.

Predictors of Quality of Life of adults with physical disabilities residing in care homes in Colombo district

Ananda R¹, Gunarathne N.K², Costa G.R.N³, De Silva D.L.A⁴, P.K.B.Mahesh⁵

¹*Postgraduate Institute of Medicine, Colombo*

²*Asiri Medical Hospital, Colombo, Sri Lanka*

³*National Institute of Infectious Diseases, Colombo*

⁴*Sri Lanka Army, Colombo, Sri Lanka*

⁵*Regional Directorate of Health Services, Colombo*

Introduction & objective: Demographic changes such as ageing and advancement of medical interventions have led to increased number of survivors with physical disabilities. They are physically, mentally, socially and financially vulnerable. This study aims to determine the key predictors of quality of life (QoL) among physically disabled persons residing in care-homes.

Methodology: A cross-sectional study with an analytical component among physically disabled persons aged 18-65 years, residing in registered care homes, in Colombo district. A total-population approach was used: all the eligible residents in registered care homes with residential facilities in Colombo were invited to participate. An interviewer-administered questionnaire with socio-demographic data, Barthel Index (BI) and Short form-36 (SF-36) was used. Descriptive statistics and multivariable linear regression were used in analysis at a significant 5% level.

Results: A total of 292, physically disabled adults with a 100% response rate participated in this study with a 1:1 male: female ratio. Among participants 38.7% were aged 46-55 years (n=113). The majority (69.9%, n=204) reported moderate disability level with a median score of 75 (IQR 65-85). In multivariable regression, disability level was the strongest predictor, being associated with lower QoL across seven out of eight domains (p<0.05). Employment status was associated with 4 domains (p<0.05). Female sex (vs male, reference) was associated with 3 domains (p<0.05). Age with 2 domains (p<0.05), and marital status with 1 domain (p<0.05).

Conclusion & recommendations: Disability level, employment status, sex and age were the most influential predictors for QoL among physically disabled residing in care-homes in Colombo district. Given the cross-sectional design, these associations warrant confirmation but suggest rehabilitation and occupational support as practical priorities.

Prevalence of energy drink consumption among A/L Students in selected schools in Colombo district and its association with sleep quality and academic performance

Siriwardena PPGAG¹, Samarasinghe DN¹, Chandrasiri MGYA¹, Luksagini R¹, Rupasinghe RADHS¹, Wijesinghe S²

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka;* ²*Health Promotion Bureau, Ministry of Health, Sri Lanka*

Introduction and Objectives: The consumption of energy drinks has surged among adolescents globally, often utilized to combat fatigue and ostensibly enhance academic performance. In Sri Lanka, Advanced Level (A/L) students face immense academic pressure, making them a vulnerable demographic for stimulant use. However, local epidemiological data regarding their consumption behaviors remains scarce, hindering targeted educational interventions.

This study aimed to determine the prevalence of energy drink consumption among A/L students in selected schools in the Colombo district and to evaluate its association with sleep quality and academic performance.

Methods: A descriptive cross-sectional study was conducted among 384 A/L students via a self-administered questionnaire. To minimize selection bias across the non-probability convenience sample, schools were selected from diverse socio-demographic zones within the district. A cluster design effect was not integrated into the sample size calculation due to the convenience approach. The tool assessed sociodemographic characteristics, academic performance, perceived academic stress, and energy drink consumption patterns. Sleep quality was quantitatively evaluated using the globally validated Pittsburgh Sleep Quality Index (PSQI). Data were analyzed using descriptive statistics, and the Chi-square test was employed to determine statistical associations ($p < 0.05$).

Results: A total of 384 participants were included in the study. The prevalence of high energy drink consumption among the sample was relatively low at 14.6%, with the vast majority (85.4%) categorized as low consumers.

Statistically significant associations with high consumption were found for male gender (17.15% vs. females at 7.70%, $p=0.020$) and high socioeconomic status (18.59% vs.

low/medium at 8.86%, $p=0.008$). Conversely, no statistically significant associations were found between energy drink consumption and academic performance ($p=0.176$), nor with several

physical sleep parameters, including sleep duration ($p=0.452$). However, highly significant associations were identified with poorer qualitative sleep experiences, specifically worse subjective sleep quality ($p=0.003$) and increased daytime dysfunction ($p=0.011$)

Conclusion: High energy drink consumption is not widespread among the surveyed A/L students and is associated with male gender and higher socioeconomic status rather than academic demands.

High consumption correlates with poorer qualitative sleep and daytime dysfunction rather than improved academic performance, challenging prevailing marketing narratives. Given the convenience sampling method, these findings are limited to the selected schools and cannot be widely generalized to the entire Colombo district. However, they emphasize the need for targeted school-based health literacy programs to promote sustainable sleep hygiene and stress management.

Knowledge, perception, accessibility and usage of contraceptives among women aged 18–49 years in estate community, Thalawakele, Nuwara Eliya District

Alahendra MP¹, Ahamed NAZ¹, Ahamed SAM¹, Akila A¹

¹*Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives: Women in Sri Lanka's estate communities face significant barriers to contraceptive use, including limited knowledge, cultural norms and restricted access to services, amid limited evidence on modern contraceptives and sexual and reproductive health practices. This study aimed to assess knowledge, perception, accessibility and usage of contraceptives among women aged 18–49 years in tea estate community of Thalawakele(Lindula) MOH area.

Methods: A descriptive cross-sectional study was conducted among 128 participants from four selected tea estates (Galkanda-Bearwell, Mattekelle, Waltrim and Lindula) in Thalawakele using multistage sampling. Data were collected via a structured interviewer-administered questionnaire. Knowledge was assessed across awareness, hormonal and factual domains using scored responses based on Bloom's cut-offs. Perceptions were evaluated using Contraceptive Acceptance Score, with reliability evaluated using Cronbach's alpha. Predictors of knowledge were identified using multiple linear regression and qualitative data were analyzed thematically. Contraceptive Prevalence Rate (CPR) and modern Contraceptive Prevalence Rate (mCPR) estimated with 95% CI.

Results: Participants were predominantly Indian Tamil (56.3%) and Hindu (68%), with most marrying early and having 1–2 children. Knowledge was low (mean score 39.5/100), with 85.9% demonstrating poor knowledge. Education was the strongest predictor ($p=0.045$), while younger, educated women had higher knowledge ($p=0.006$). Health workers were the primary information source (39.6%). Attitudes were neutral to positive and varied by religion and ethnicity ($p<0.05$). Services were widely available (93%) with high utilization; CPR-81.3% (95%CI: 74.5%–88.1%) and mCPR-68.8% (95%CI: 60.8%–76.9%). Implants (27.1%) and DMPA (23.1%) were most commonly used, though side effects (41%) contributed to discontinuation.

Conclusions: Culturally sensitive, community-based interventions are needed to improve knowledge, address misconceptions, engage men and strengthen access to contraceptive services.

Development of an Evidence-Based Framework for NCD Prevention Health Communication through Facebook in Sri Lanka

Wanasinghe T¹, Athauda LK², Abeykoon A³, Chandratilake MN⁴, Kasturiratne A²

¹*Global Health Research Unit, University of Kelaniya, Dalugama, Kelaniya, Sri Lanka*

²*Department of Public Health, Faculty of Medicine, University of Kelaniya, Thalagolla, Ragama, Sri Lanka*

³*Department of Mass Communication, Faculty of Social Sciences, University of Kelaniya, Dalugama, Kelaniya, Sri Lanka*

⁴*Department of Medical Education, Faculty of Medicine, University of Kelaniya, Thalagolla, Ragama, Sri Lanka*

Introduction and Objectives: Facebook is a prominent channel for NCD prevention health communication. Limited evidence on effective content creation guidance led this study to evaluate NCD prevention Facebook content through the perspectives of researchers, developers, service providers, and clients aiming to propose a framework.

Method: In the four step, qualitative study, the ‘researcher perspective’ was explored through a scoping review mapping health communication theories and strategies used for NCD prevention on social media. For the ‘developer perspective’ content analysis of fifteen Facebook posts published by the Ministry of Health were scored using a validated evaluation framework identified in the scoping review. Further analysis was conducted using Critical Discourse Analysis. ‘Service provider perspectives’ on content development, were sought through eight key informant interviews with relevant stakeholders. Finally, ‘client perspectives’ on the same Facebook content were described through eight diverse community focus group discussions.

Results: Researcher perspective identified the Health Belief Model, Lasswell’s 5W and Social Marketing Mix as the most applicable frameworks for NCD communication on Facebook but found that existing content lacked theoretical integration. Developer perspective found a socio-cultural misalignment in the Facebook content. Service providers reported resource constraints, limited use of behavioural theory, and reliance on organic reach. Clients valued culturally resonant, action-oriented content with family and community themes. Synthesis of four perspectives produced a conceptual framework specifying the need for theory grounding, technology integration, policy alignment and cultural expectations.

Conclusions: This multi-perspective framework developed for Facebook-based NCD prevention provides actionable guidance integrating behavioural science, cultural relevance, and strategic evaluation for all health communication stakeholders.

Patient level factors associated with acute exacerbation of asthma among adult metered-dose inhaler (MDI) users seeking treatment at the respiratory medicine unit of teaching hospital Kurunegala: A case-control study in Kurunegala District

Galappaththi SN¹, Chandraratne N²

¹*Base Hospital Dambadeniya, Kurunegala*

²*Department of Community Medicine, Faculty of Medicine, University of Colombo*

Introduction: Acute exacerbation of asthma contribute to significant social and economic burden. Study aimed to determine the patient level factors associated with acute exacerbation of asthma among adult MDI users.

Methodology: An institution-based unmatched case-control study was conducted in 2025, with 88 cases enrolled from the respiratory ward of TH Kurunegala and 176 controls recruited through systematic sampling from Chest Clinic Kurunegala involving diagnosed adult asthma patients aged between 20 to 70 years on regular MDI for more than six months duration. Data were collected using validated, pretested interviewer-administered questionnaire and an inhaler technique observation checklist. Data were analyzed using SPSS software version 23. The associations were presented with odds ratios and 95% confidence intervals at statistical significance of $p < 0.05$.

Results: Households with 10% or more monthly expenditure for treatment (OR=2.65, 95% CI=1.39-5.02, $p=0.002$), long term comorbidities (OR=1.80, 95% CI=1.02-3.18, $p=0.042$), long term medications (OR=4.00, 95% CI=2.20-7.24, $p<0.001$), exposure to cooking smoke (OR=4.70, 95% CI=2.15-10.28, $p<0.001$), strong odor (OR=2.55, 95% CI=1.48-4.38, $p=0.001$), common cold (OR=2.05, 95% CI=1.11-3.80, $p=0.021$), unavailability of written management plan (OR=22.88, 95% CI=10.64-49.21, $p<0.001$), non-adherence to controller MDI (OR=61.92, 95% CI=8.20-467.85, $p<0.001$), not receiving MDI training (OR=10.54, 95% CI=1.21-91.67, $p=0.009$) and poor inhaler technique (OR=77.05, 95% CI=33.11-179.28, $p<0.001$) were identified as key factors.

Conclusions: Most of the associated factors are modifiable if addressed through robust clinical and public health interventions. Providing a written or printed card with individual MDI regime for controller MDI and patient-centered health education programme should be implemented for standardization of patient care.

Healthcare provider level factors associated with acute exacerbation of asthma among adult metered-dose inhaler (MDI) users seeking treatment at the respiratory medicine unit of teaching hospital Kurunegala: A case-control study in Kurunegala District

Galappaththi SN¹, Chandraratne N²

¹*Base Hospital Dambadeniya, Kurunegala*

²*Department of Community Medicine, Faculty of Medicine, University of Colombo*

Introduction: Acute exacerbation of asthma contribute to significant social and economic burden. Study aimed to determine the healthcare provider level factors associated with acute exacerbation of asthma among adult MDI users.

Methods: An institution-based unmatched case-control study was conducted in 2025, with 88 cases enrolled from the respiratory ward of TH Kurunegala and 176 controls recruited through systematic sampling from Chest Clinic Kurunegala involving diagnosed adult asthma patients aged between 20 to 70 years on regular MDI for more than six months duration. Data were collected using validated, pretested data extraction form. Data were analyzed using SPSS software version 23. The associations were presented with odds ratios and 95% confidence intervals at statistical significance of $p < 0.05$.

Results: Not providing adequate health education on asthma (OR=52.24, 95% CI=24.25-112.51, $p < 0.001$) & on inhaler technique (OR=22.44, 95% CI=2.82-178.31, $p < 0.001$), not identifying triggering factors (OR=4.62, 95% CI=2.68-7.99, $p < 0.001$) and the incompatibility between patient practiced and healthcare provider prescribed treatment (OR=131.74, 95% CI=30.66-566.01, $p < 0.001$) were identified as key factors.

Conclusion: Most of the associated factors were modifiable if addressed through robust clinical and public health interventions. Providing a written or printed card with individual MDI regime, a Standard Operating Procedure on inhaler technique training for healthcare providers, a comprehensive health education programme about asthma for patients should be implemented for standardization of patient care.

Barriers to Physical Activity and Their Association with Physical Activity Level among Elders Attending Outpatient Department at District General Hospital – Horana

Palihawadana R¹, Jayakody HG²

¹*Youth, Elderly & Disabled persons' Unit, Ministry of Health,*

²*National Institute of Health Sciences, Kalutara*

Introduction and Objectives: Data on barriers to physical activity (PA) among elders in Sri Lanka are limited. This study determined the perceived barriers to PA and their association with PA level among elders attending the Outpatient Department (OPD) of District General Hospital (DGH)–Horana.

Methods: A cross-sectional study was conducted among 325 elders aged ≥ 60 years attending the OPD of DGH–Horana. Participants were recruited using systematic random sampling, whereby every fourth eligible participant was selected after a random start. An interviewer-administered questionnaire in Sinhala, Tamil or English was used for data collection. It included intrinsic barriers, extrinsic barriers and validated version of Global Physical Activity Questionnaire (GPAQ) to assess the PA level. Associations between perceived barriers and PA level were analyzed using the chi-square test, with statistical significance set at $p < 0.05$.

Results: Most participants were sufficiently physically active ($n=280$, 86.2%). The most common intrinsic barriers were the perception of doing enough work ($n=191$, 58.8%), tiredness ($n=123$, 37.8%) and aches and pains ($n=121$, 37.2%). The commonest extrinsic barriers were lack of nearby facilities ($n=139$, 42.8%), lack of transport ($n=51$, 15.7%) and bad weather ($n=45$, 13.8%). Lack of interest in PA was significantly associated with insufficient PA ($\chi^2=12.09$, $df=1$, $p=0.001$). Conversely, perceiving routine work as sufficient exercise was significantly more common among sufficiently physically active participants ($\chi^2=16.49$, $df=1$, $p<0.001$), possibly reflecting the contribution of routine activities captured by GPAQ.

Conclusions: Public health interventions should focus on behavioural motivation, awareness on structured exercise in addition to routine daily activities and improving local facilities to increase PA among elders.

“Charting with Care”: Improving Completeness of Paediatric Admission Clerking Through a Ward-Based Quality Improvement Initiative

Dissanayaka DMSM¹, Bopitiya SR¹, Hassan MHSM¹, Jayasundara RJMKA¹, Jayasooriya KAHS²

¹*Department of Paediatrics and Neonatology, Faculty of Medicine, University of Moratuwa*

²*Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Moratuwa*

Introduction and objectives: Complete and structured paediatric admission clerking is essential for accurate diagnosis, patient safety, continuity of care, and medico-legal protection. Informal observations at Maternity and Children’s Hospital, Kalutara revealed variability and incomplete documentation in admission records, particularly regarding growth parameters, blood pressure documentation, and differential diagnosis and problem list documentation. Aim to improve the completeness of paediatric admission clerking from baseline to $\geq 90\%$ compliance within three months.

Methods: A clinical audit was conducted over three months from November 2025 to January 2026. A 21-item clerking checklist was developed, including history, examination (with ENT examination), growth parameters and centiles, blood pressure and centiles, diagnosis, management plan, and clinician identification details. Baseline data were collected from 30 consecutive admissions. Interventions included introduction of a standardized clerking proforma, awareness sessions for House Officers, display of ward checklists, and periodic feedback during ward rounds. Re-audits were conducted monthly to assess improvement.

Results: Pre-intervention overall clerking completeness was 75.25%. Post-intervention, overall compliance increased to 91.6%, achieving the $\geq 90\%$ target. Marked improvements were observed in growth centiles (33.3% to 80%), blood pressure centiles (5% to 78%), differential diagnosis (0% to 75%), and problem list documentation (0% to 79%). The improvement was statistically significant ($p < 0.001$).

Conclusion: Introduction of a standardized clerking checklist with regular feedback significantly improved the completeness of paediatric admission documentation. Sustained monitoring and integration into staff orientation are recommended to maintain compliance and enhance patient safety.

“Cooling the Fear”: Improving Caregivers’ Knowledge on Childhood Fever Management Through a Clinic-based Quality Improvement Initiative

Dissanayaka DMSM¹, Bopitiya SR¹, Hassan MHSM¹, Jayasundara RJMKA¹, Jayasooriya KAHS²

¹*Department of Paediatrics and Neonatology, Faculty of Medicine, University of Moratuwa*

²*Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Moratuwa*

Introduction and objectives: Childhood fever is a common reason for paediatric consultations, and misconceptions regarding its management contribute to anxiety and inappropriate treatment practices. This Quality Improvement (QI) project was conducted at Maternity and Children’s Hospital, Kalutara to improve caregivers’ knowledge on home-based childhood fever management. Aim to assess baseline knowledge of caregivers and evaluate the effectiveness of a brief educational intervention.

Methods: A pre-post interventional QI study was conducted over six months from August 2025 to January 2026 among caregivers attending the paediatric clinic. Baseline knowledge was assessed during the first three months using a 10-item Adapted Parental Fever Management Knowledge Questionnaire. A score $\geq 75\%$ ($\geq 8/10$) indicated satisfactory knowledge. Immediately after the assessment, caregivers received a structured educational session and an information leaflet, and a childhood fever management poster was displayed at the paediatric clinic to reinforce key messages. Post-intervention knowledge was reassessed over the next three months using the same questionnaire among caregivers who returned for follow-up. Proportions were compared using the Chi-square test, with $p < 0.05$ considered significant.

Results: A total of 711 caregivers completed the baseline assessment, of whom 505 (71.0%) were reassessed post-intervention. The proportion of caregivers with satisfactory knowledge increased significantly from 57% at baseline to 88% following the intervention ($p < 0.001$).

Conclusion: A simple educational intervention significantly improved caregivers’ knowledge on childhood fever management. Incorporating structured education into routine clinic practice is a feasible and effective strategy to reduce fever-related misconceptions.

International childhood screen use guidelines: a review of domains assessed across global recommendations

¹Padeniya A, ¹Gunaratne BRRN, ²Nandasena S, ³Ranasinghe JMDS

¹*Paediatric Neurology Unit, Lady Ridgeway Hospital for Children, Colombo, Sri Lanka*

²*Sabaragamuwa University of Sri Lanka*

³*Postgraduate Institute of Medicine, Colombo*

Introduction: Screen use in children is linked to adverse physical, psychosocial, developmental, cognitive, educational, and sleep-related outcomes. Sri Lankan studies report television viewing among 97% of adolescents and electronic screen use among 96% of preschool children (exceeding the recommended limits by over 60%). This review compares recommendations and identifies key domains assessed in childhood screen-use guidelines from different organisations.

Methods: Screen-use guidelines for children and adolescents aged 0–18 years were identified with an extensive literature search. A checklist was developed based on 14 predefined domains (e.g., screen-time limits, age-specific recommendations, reduction of sedentary behaviour). Recommendations and key domains assessed in each guideline were independently evaluated by the investigators. Findings were quantified and presented as percentages.

Results: Eleven international guidelines were included, mostly originating from high-income countries (91%) and one (9%) from a low- or middle-income setting. Core domains, age-specific recommendations, developmental appropriateness, screen-time limits, parental supervision, educational versus recreational content, and family-based screen use practices were universally addressed (i.e., 100%). Sedentary behaviour reduction, sleep-related practices, physical activity integration, developmental impacts, and co-viewing were included in 91%, while bedroom restrictions and mental or behavioural health outcomes appeared in 82%. Digital literacy was least represented (64%).

Conclusions: International childhood screen-use guidelines show strong concordance but are mostly driven by high-income countries. Further research is needed for their cultural applicability in low- and middle-income settings.

Clinical, Biochemical and Histological Spectrum of Autoimmune Hepatitis In A Single Centre In Sri Lanka: A Retrospective Cohort Study

Thanthiriwattha CD¹, Athauda YN², Siriwardana RC¹, Gunetilleke B¹, Bopagoda M³, Fernando M^{1,2}

¹Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya

²University Paediatric Unit, Colombo North Teaching Hospital, Ragama

³Department of Pathology, Faculty of Medicine, University of Kelaniya

Introduction: Autoimmune hepatitis (AIH) is a chronic immune-mediated liver disease characterised by elevated transaminases, hypergammaglobulinaemia, autoantibody positivity, and interface hepatitis. Early diagnosis is essential to prevent progression to end-stage liver disease. Paediatric data from South Asia remain limited. This study describes the clinical, biochemical, and histological spectrum of paediatric AIH in a tertiary centre in Sri Lanka.

Methodology: A retrospective review was conducted of children diagnosed with AIH at the Colombo North Centre for Liver Diseases between 2020 and 2025. Diagnosis was based on clinical, biochemical, serological, and histological criteria using international AIH scoring systems.

Results: A total of 37 children (male:female = 16:21; age range 1 month–14 years) with AIH were included. Common presenting features included jaundice, hepatomegaly, fatigue, abdominal distension, and features of chronic liver disease. Overall, 10/37 (27%) presented with acute liver failure (ALF). Elevated transaminases and hypergammaglobulinaemia were frequently observed. ANA/ASMA positivity consistent with type 1 AIH was seen in 27 patients (73%), while 10 (27%) were anti-LKM positive (type 2 AIH). Histology predominantly showed interface hepatitis, portal lymphoplasmacytic infiltration, rosette formation, and variable fibrosis; cirrhosis at presentation was present in 34%. Among ALF patients, 2 required liver transplantation and 8 recovered with immunosuppression. Overall, liver transplantation was required in 4/37 patients (11%).

Conclusion: Paediatric AIH in Sri Lanka shows a heterogeneous spectrum, with many presenting late with cirrhosis or ALF. A subset required LT, emphasising the need for early recognition, timely immunosuppression, and prompt transplant referral.

Prevalence of Adverse Childhood Experiences among school-going adolescents: Preliminary Results of a Study from Northern Sri Lanka

Arunath V¹, Purushothaman U¹, Mettananda S²

¹*District General Hospital, Mullaitivu, Sri Lanka*

²*Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka*

Introduction and Objectives: Adverse Childhood Experiences (ACEs) are traumatic events, including abuse and household dysfunction, experienced by children and adolescents. ACEs trigger stress, alter brain development and lead to long-term health problems among adolescents. Data on the prevalence of ACEs in post-conflict regions like Vavuniya remains limited. Objective of the study was to determine the prevalence of ACEs among 16-17-year-old school-going adolescents in Vavuniya district, Sri Lanka.

Method: A cross-sectional study was conducted among 16-17-year-old school-going adolescents in Vavuniya district, Sri Lanka, using a pre-tested self-administered questionnaire via cluster sampling. ACE questions were adapted from validated 17-item Paediatric ACEs Screening and Related Life-events Screener. Ethical approval was obtained. For bivariate analysis using the Chi-square test, the total cumulative ACE score was dichotomized into two distinct categories: no ACEs and any ACE exposure.

Results: A total of 461 adolescents were recruited. The majority were Tamil (73.1%), and 79.6% reported having both parents as caregivers. Over half (57%) had experienced at least one ACE. The most prevalent ACEs were emotional neglect (27.5%), witnessing community violence (26.9%), and witnessing domestic violence (26.7%). Other significant ACEs included emotional abuse (18.4%), physical abuse (17.6%), caregiver substance use (13.7%), and separation from caregivers (11.7%). Sexual abuse was reported by 5.2% of the participants. ACEs were significantly higher among children without both parents ($X^2=24.6$, $p=0.000$) and from lower-income households ($X^2=26.5$, $p=0.000$).

Conclusions: ACEs are highly prevalent among adolescents in the Vavuniya District and are significantly associated with lower socioeconomic status and family structure. These findings underscore the urgent need for targeted social and school-based interventions.

Impact of Adverse Childhood Experiences and Health Risk Behaviours on Adolescent Suicidality and Self-Harm: Preliminary Results of a Study from Northern Sri Lanka

Arunath V¹, Purushothaman U¹, Mettananda S²

¹*District General Hospital, Mullaitivu, Sri Lanka*

²*Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka*

Introduction & Objectives: Adolescent self-injury and suicidality represent significant public health challenges, often rooted to life stressors. Although Adverse Childhood Experiences (ACEs) are known precursors for self-injury and suicidality, data among Sri Lankan adolescents are limited. Objective of the study was to determine the incidence of self-harm and suicidality (suicidal ideation and suicidal attempt) and to describe their associations with ACEs, risk behaviours and mental health issues among 16-17-year-old school-going adolescents in Vavuniya district, Sri Lanka.

Methods: A cross-sectional study was conducted among 16-17-year-old school-going adolescents in Vavuniya district, Sri Lanka, using a pre-tested self-administered questionnaire via cluster sampling. ACEs questions were adapted from validated 17-item Paediatric ACEs Screening and Related Life-events Screener. Ethical approval was obtained, and the data were analysed using SPSS.

Results: A total of 461 adolescents were recruited, of whom 57% had experienced at least one ACE. The incidence of self-harm and suicidality during the past year was reported as 14.1% for self-injury, 11.1% for suicidal ideation, and 5.9% for suicidal attempts. ACEs were significantly associated with increased risks for self-injury and suicidality ($p < 0.05$). Self-injury and suicidality were significantly more prevalent among adolescents reporting cognitive difficulties, depressed mood, and anxiety symptoms ($p < 0.05$). Lower incidence rates were reported among the adolescents with absence of bullying ($p < 0.05$), lack of involvement in physical violence ($p < 0.05$), and abstinence from tobacco, alcohol, and illicit substances ($p < 0.05$).

Conclusions: Incidence of self-injury and suicidal attempts were 14% and 6%, respectively, among adolescents in Vavuniya, Sri Lanka. Suicidality was significantly associated with ACEs, risky behaviours and mental health issues, highlighting the need for targeted mental health interventions.

Effect of simulation-based paediatric airway skills training on knowledge, practical competence and emotional safety among medical undergraduates in Sri Lanka

SAC Dalpatadu¹, TCMGDP Cooray², D Navarathne², KCS Dalpatadu³

¹*Faculty of Medicine, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka*

²*Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

³*Colombo North Teaching Hospital, Ragama, Sri Lanka*

Introduction and Objectives: Paediatric airway management requires theoretical knowledge, technical skill, and learner confidence. This study evaluated the effect of simulation-based paediatric airway management training on knowledge gain, practical competence, training perception, and emotional safety among medical undergraduates in Sri Lanka.

Methods: A prospective pre-post educational evaluation was conducted among medical undergraduates undergoing routine simulation-based paediatric airway management training at General Sir John Kotelawala Defence University. Airway knowledge was assessed using pre- and post-training questionnaires. Practical competence was evaluated using a 15-item examiner-rated checklist scored from 0–4. Post-training perception, positive emotional safety, and negative emotional concern were assessed using 5-point Likert-scale items. Matched pre-post and exploratory correlation analyses were performed.

Results: Eighty students were included. Mean airway knowledge increased from $7.05 \pm 2.40/12$ to $8.38 \pm 2.04/12$. Mean paired gain was 1.33 points/12 (95% CI: 0.60–2.08), with significant improvement on Wilcoxon signed-rank testing ($W=653.0$; $p=0.001$) and moderate effect size (rank-biserial correlation=0.44). The proportion achieving $\geq 75\%$ knowledge increased from 31.3% to 41.3%. Mean practical checklist score was $46.24 \pm 11.56/60$; 63.8% achieved practical competence $\geq 75\%$, and 33.8% achieved high proficiency $\geq 90\%$. Checklist performance was strongest for bag-valve-mask ventilation and weakest for airway assessment. Training perception was favourable ($3.83 \pm 1.30/5$), positive emotional safety was high ($4.13 \pm 1.17/5$), and negative emotional concern uncommon at 5.0%. Knowledge and practical competence were non-significantly correlated.

Conclusion: Simulation-based paediatric airway management training improved short-term knowledge and supported acceptable practical performance, favourable learner perceptions, and emotional safety. Refresher training should prioritise airway assessment, airway clearance, and selected technical knowledge gaps.

Clinical and Genetic Spectrum of Paediatric Alagille Syndrome: Experience In A Single Sri Lankan Centre

Thanthiriwattha CD¹, Athauda YN², Tillakaratne MSB¹, Appuhamy C¹, Padeniya P³, Fernando M^{1,2}

¹Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya

²University Paediatric Unit, Colombo North Teaching Hospital, Ragama

³Department of Anatomy, Faculty of Medicine, University of Kelaniya

Introduction : Alagille syndrome (ALGS) is a multisystem autosomal dominant disorder caused mainly by pathogenic variants in the *JAG1* or *NOTCH2* genes. It is characterized by chronic cholestasis with mutisystem involvement. Regional paediatric data are limited. This study describes the clinical and genetic spectrum of children with ALGS managed at a tertiary paediatric hepatology centre in Sri Lanka.

Methodology : A retrospective review was performed of children with genetically confirmed ALGS at the Colombo North Centre for Liver Diseases, from 2020–2025. Whole-exome sequencing was performed, and variants were classified using ACMG–AMP criteria with supporting population databases and in silico prediction tools.

Results : A total of 10 children with genetically confirmed ALGS were identified (male:female ; 6:4; age range 1 month–8 years). Cholestasis was present in 5/10 (50%), characteristic facies in 5/10 (50%), congenital cardiac anomalies in 5/10 (50%), butterfly vertebrae in 6/10 (60%), and posterior embryotoxon in 4/10 (40%). Renal involvement was observed in 2/10 (20%). *JAG1* variants were identified in 5/10 (50%) children, including 3 pathogenic variants and 2 variants of uncertain significance (VUS). *NOTCH2* variants were detected in 5/10 (50%), including one rare disease variant and four VUS. During follow-up, two children underwent liver transplantation and one mortality was recorded.

Conclusion: This study demonstrates marked clinical and genetic heterogeneity among Sri Lankan children with ALGS. Early recognition of syndromic cholestasis with integration of genetic testing facilitates accurate diagnosis, multidisciplinary management, family counselling, and timely transplantation referral when indicated.

Factors Affecting Medication Adherence Among Children with Epilepsy at a Tertiary Care Hospital, Sri Lanka: A Qualitative Study

Modaragama AS¹, Jayasinghe JAAJ¹, Dalpatadu KCS¹, Dalpatadu SAC²

¹ *North Colombo Teaching Hospital, Ragama, Sri Lanka*

² *Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka*

Introduction and Objectives: Epilepsy in children causes significant morbidity, which can often be prevented using anti-epileptic medications. Non-adherence can lead to disease relapses and increased morbidity. This study aims to identify factors that contribute to non-adherence among children with epilepsy.

Methodology: A qualitative study using a focus group discussion was conducted among caregivers of children with epilepsy attending the Colombo North Teaching Hospital. This study involved 10 participants and was audio-recorded, transcribed verbatim, and analysed using thematic analysis.

Results: This study identified four major themes including caregiver and children-related factors, treatment-related factors, disease-related factors and health system-related factors. Furthermore, eight sub-themes were identified, including knowledge, attitudes and beliefs, adverse effects of medications, medication composition, medication outcomes, availability and accessibility of medications, complexity of administration, and barriers related to lack of facilities in the healthcare system. Among participants, 80% demonstrated a lack of knowledge regarding epilepsy and medications. 80% reported forgetting to administer medications. 70% of caregivers had difficulty administering medications due to complexity and dosing intervals. The experience of adverse effects contributed to non-compliance in 50% of children. In 20% of cases, medications were not administered due to prolonged seizure-free intervals, and also 20% were unable to afford medications due to financial difficulties.

Conclusion: Non-compliance with anti-epileptic medications is mainly influenced by knowledge and medication-related factors. Implementing strategies to enhance caregiver knowledge and perceptions, addressing concerns of medications, financial constraints and healthcare access barriers, may help to improve adherence among epileptic children.

Barriers to Early Detection of Childhood Leprosy: A Systematic Review of Diagnostic Challenges and Delays

Perera AANN¹, Pathirage AI¹, Perera CD¹

¹ *Faculty of Medicine, University of Colombo, Sri Lanka.*

Introduction and Objectives:

Leprosy is a neglected tropical disease causing substantial burden in low-income countries. Childhood cases reflect active community transmission despite global control efforts. Early diagnosis remains challenging, contributing to delayed detection and increased disability risk. The objective of this review was to identify and categorize barriers to early case identification.

Methods:

A systematic review was conducted to evaluate diagnostic challenges and factors associated with delayed detection. Electronic databases were searched up to February 2026 using predefined MeSH terms and keywords. Inclusion criteria included leprosy patients aged 0–18 years.

Results:

Nine observational studies met the criteria, with a total 1,085 patients. Most studies were conducted in leprosy endemic countries. Diagnostic lags from 11 months to 5 years were reported. Factors contributing to delayed diagnosis were categorized into three domains: health system factors, healthcare provider factors, and socio-community factors. Limited access to primary healthcare, inadequate awareness among healthcare workers, as well as frequent misdiagnosis due to the paucibacillary and oligo-symptomatic nature of pediatric lesions were reported. A higher proportion of multi-bacillary (MB) cases was observed in late diagnosed patients. Intense social stigma, suboptimal knowledge regarding leprosy in the community were the socio-community factors.

Conclusion:

High rates of disability and the prevalence of MB cases in children signal a failure of early detection. Addressing these requires enhancing primary healthcare worker training and augmenting community sensitization to improve disease recognition. Establishing specialized referral units and providing access to advanced diagnostic modalities are essential strategies to reduce diagnostic lag and prevent long-term morbidity.

Introducing the Wechsler Preschool and Primary Scale of Intelligence, Fourth Edition (WPPSI-IV) for Early Childhood Cognitive Assessment in Sri Lanka: A Feasibility Study

Jayasinghe JMDC^{1,3}, Karunarathne CB^{1,3}, Kariyawasam KHAY^{1,4}, Thilakarathna HMCRK^{2,4}, Priyanga P¹, Manomi KAN¹, Madusshica R¹, Rishadha MRF², Kumaranathunga PND², Kumarasiri OKDVT², Wijayasinghe WADHM², Chandrasekara CMJC², Gallage NA³, Wijesekara RGKP³, Kaththiriarachchi LS¹, Dissanayake PV², Goonewardena CSE¹, Lin C⁵, Schwarze J⁶, Madegedara D³, Yasaratne D², Wimalasekera SW¹

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

²*Faculty of Medicine, University of Peradeniya, Sri Lanka*

³*Faculty of Medicine, Wayamba University of Sri Lanka*

⁴*KIU, Sri Lanka*

⁵*Usher Institute, University of Edinburgh, UK*

⁶*Child Life and Health, Centre for Inflammation Research, Institute for Regeneration and Repair, University of Edinburgh, UK*

Introduction and Objectives: The WPPSI-IV is a widely used comprehensive childhood cognitive assessment tool, yet its applicability in Sri Lanka remains unexamined. This study reports interim analysis findings and assesses the feasibility of the WPPSI-IV administered for the first time among Sri Lankan children.

Method: A cross-sectional study was conducted among young children (3-7 years) attending selected Medical Officer of Health (MOH) clinics in Colombo and Kandy districts. Prior to administration, WPPSI-IV was subjected to translation and cultural adaptation by an expert panel. Feasibility was evaluated by the successful completion of testing and the ability to confidently compute Full-Scale IQ (FSIQ) scores from raw and scaled subtest data according to WPPSI-IV guidelines.

Results: Out of 49 initially recruited children, 47 (95.9%) successfully completed the age-appropriate core subtests testing Verbal Comprehension, Visuospatial and Working Memory domains, establishing the practical feasibility of WPPSI-IV administration in this setting. The mean age was 4.84 ± 0.99 years and 27 (57.4%) were males. The overall mean FSIQ was 98.34 (SD = 15.81, range: 72-140). These scores align closely with the international normative mean of 100 and capture a broad spectrum of cognitive abilities. FSIQ did not differ significantly by sex (Males: 98.19 ± 15.10 vs. Females: 98.55 ± 17.11 , $p=0.939$).

Conclusions: WPPSI-IV is highly feasible to administer in Sri Lanka, and preliminary results indicate expected varying levels of intellectual functioning. These preliminary findings support continuation of the study to establish local normative data, which is critical for accurate and culturally appropriate early childhood psychological assessments in Sri Lanka.

The Impact of a Competitive Exam on the Mental Health among Young Adults; experience from a National School in Colombo District, Sri Lanka.

Kurukulasuriya SD¹, Dalpatadu SAC¹

¹*General Sir John Kotelawala Defence University, Sri Lanka*

Introduction and Objectives: In Sri Lanka, the General Certificate of Education Advanced Level (A/L) examination plays a pivotal role in the lives of young adults, as it is often the main pathway to higher education and future career opportunities. The highly competitive nature, merit-based selection process places considerable psychological pressure on students. While international studies have shown links between high-stakes examinations and mental health issues such as depression, anxiety and stress, local evidence remains limited. Therefore, this study was aimed at assessing the impact of competitive examinations on mental health and to identify contributing factors and coping strategies.

Method: A descriptive cross-sectional study was conducted among 138 A/L students at a national school. Data was collected using a self-administered questionnaire, including the Sri Lankan validated version of the Depression, Anxiety, Stress Scale (DASS-21), and factors regarding coping mechanisms.

Results: Depression, anxiety and stress were reported in 66.7%, 55.1% and 47.8% of participants, respectively. Males showed higher vulnerability to severe anxiety ($p=0.040$) and stress ($p=0.047$). Preparation confidence was significantly associated with lower depressive symptoms ($r=-0.289$, $p=0.001$), while parental pressure had no significant association with distress. A favorable study environment lowered the levels of depression, anxiety and stress ($p < 0.05$ for all). Listening to music was the most common coping strategy for anxious individuals ($X^2 = 15.006$, $p = 0.0010$).

Conclusion: Sri Lankan A/L students demonstrated high depression, anxiety and stress prevalence, significantly influenced by study environment and preparation confidence. Thus, an urgent need for targeted interventions must be implemented.

Optimizing professional medical education via a learning management system driven self-directed learning approach

Satharasinghe E¹, Fernando D²

¹ *Postgraduate Institute of Medicine, University of Colombo, Sri Lanka*

² *Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives:

With approximately 50 imported malaria cases being reported a year, delayed diagnosis by clinicians remains a threat to re-establishment of the disease, updating clinicians' knowledge on malaria through continuous professional development (CPD) is a timely intervention. As traditional CPD methods are limited by several barriers, this study aimed to develop a Moodle-based self-directed learning (SDL) course on malaria aimed at clinicians incorporating gamification to optimize professional medical education.

Methods: The study was conducted in four phases using a mixed-method research design. Phase 1 included requirement analysis using literature review, content expert input, and a pre-implementation questionnaire (N=54). Based on the above findings, in phase 2, the course was designed and developed using the ADDIE instructional design model and grounded in adult learning theories. In phase 3, the course was piloted with six clinicians and Phase 4 evaluated effectiveness using Moodle analytics and qualitative feedback via interviews.

Results: Phase 1 analysis showed clinicians preferred a guided self-directed Moodle based online course. Phase 4 evaluation confirmed the effectiveness of the course regarding SDL and gamification. 83.3% achieved full completion, with mean activity completion of 97.2%. Mean overall course score was 1481.4/1800, with two participants scoring full marks. Qualitative findings reinforced this effectiveness, highlighting that it provided flexibility, autonomy, well-structured high quality malaria education, while gamification techniques increased motivation.

Conclusion: The Moodle-based gamified guided SDL model was an effective CPD strategy for updating clinician knowledge on malaria and offers a scalable model for professional medical education.

The psychological impact of anaphylaxis among an adult population at a specialized clinic in Sri Lanka.

Ranasinghe TND^{1,2}, Chathurangika PH², Aberathna IS², Jayamali MPDJ², Danasekera SD², Amarasekera UPK², Ariyaratne MHJD², Rohanachandra YM³, Malavige GN^{1,2}, Jeewandara JM KC^{1,2}

1. Department of Immunology and Molecular Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka.

2. Institute of Allergology and Immunology, University of Sri Jayewardenepura, Sri Lanka.

3. Child and Youth Mental Health Services, Latrobe Regional Health, Australia.

Introduction and Objectives: Anaphylaxis is a severe, allergic reaction reported to have significant psychological sequelae. Data from South Asia, particularly Sri Lanka, is scarce, representing a critical knowledge gap.

Methods: A cross-sectional study was conducted at the Institute of Allergology and Immunology, Sri Lanka. Adults aged 18–80 years with at least one anaphylactic episode (WAO criteria) were recruited over a period of three years. Psychological outcomes were assessed using validated English, Sinhala and Tamil versions of the DASS-21 and IES-8 questionnaires.

Results: 315 adults were included (mean age 38.1 years; 61.6% female). Food was the most common trigger (55.9%), followed by medication (21.6%). Anxiety was the most affected domain, with 18.4% reporting severe or extremely severe symptoms on the DASS-21. In contrast, the scores for depression (78.1%) and stress (80.0%), were within the normal range in the majority. Based on the IES-8, 32.6% met the criteria for probable post-traumatic stress disorder (PTSD). Individuals with multiple trigger sensitivities reported the highest levels of anxiety and stress. A significant relationship was observed between the number of anaphylaxis episodes and all three DASS-21 domains. A significant dose-response relationship was observed between episode frequency and trauma scores ($p = 0.0189$), while age and gender were not significantly associated with psychological outcomes.

Conclusions: This is the first study of psychological burden following anaphylaxis in Sri Lanka. The high prevalence of clinically significant anxiety and probable PTSD highlights a critical unmet need. Systematic psychological screening and culturally appropriate psychosocial support should be integrated into routine anaphylaxis follow-up care.

Qualitative Evaluation of Glycation induced spectral changes in Serum Using Raman Spectroscopy for hyperglycemia detection; A Novel Diagnostic Approach for Monitoring Diabetes mellitus

Jayasekara L^{ASP1}, Senadeera SPNN², Kottahachchi DU³, Gunawardene S⁴, Jayaweera HHE⁴, Samarathunga L⁴, C.B. Ranaweera³, Katulanda G⁵

¹Department of Biomedical Sciences, Edith Cowan University, Sri Lanka

²Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, General Sir John Kotelawala Defense University

³Department of Zoology and Environmental Science, Faculty of Science, University of Colombo, Sri Lanka

⁴Center for Instrument Development, Department of Physics, University of Colombo, Sri Lanka

⁵Department of Biochemistry, National Hospital of Sri Lanka

Introduction and Objective: In diabetes, glucose non-enzymatically binds to albumin, altering chemical bonds such as C–N, C=O, N–H, and CH₂ groups, which are associated with Amide I, Amide II, and CH₂ deformation bands. These bond and structural changes affect molecular vibrations and appear as detectable changes in Raman spectra. This study evaluates these glycation-induced spectral changes, particularly in the CH₂ deformation region, to assess their relevance in diabetes detection.

Method: Raman spectra were obtained for standards of D-glucose 1 M and 10 mM, fructosamine (400 μM), and 25 human serum samples with known glucose concentrations. Measurements were performed using a 532 nm laser by the micro-well plate method. Raman spectra were preprocessed by wavenumber calibration and noise filtering. Spectral analysis was conducted in Microsoft Excel and graphed in Prism.

Results: 0.4 mM BSA 10mM glucose showed no distinguishable peaks except for the O–H from deionized water. In contrast, 1 M glucose and 400 μM fructosamine exhibited a prominent CH₂ deformation peak at 2909–2947 cm⁻¹ and 2799–2895 cm⁻¹, respectively, with fructosamine also showing Amide I (1600–1700 cm⁻¹) and Amide II (1400–1500 cm⁻¹) bands. A prominent CH₂ deformation peak in serum appeared in the range of approximately 2855–2980 cm⁻¹, while β-carotene peaks partially masked Amide bands in serum.

Conclusion: CH₂ deformation peaks mainly arise from alkyl groups in proteins, lipids, and glucose. Serum showed a prominent CH₂ deformation peak, while lower concentrations of BSA and glucose showed weak peak signal and higher glucose and fructosamine concentrations produced a strong peak signal, indicating a concentration-dependent contribution of glucose to CH₂ deformation band in raman spectra. Thus, glycation can be assessed through changes in the intensity and Raman shift of this peak. The spectral data were only analyzed qualitatively in this study

Clinical Utility of Basophil Activation Testing for Drug Hypersensitivity Evaluation in a Resource Limited Setting: A Sri Lankan Cohort Study

Aberathna IS¹, Ranasinghe T^{1,2}, Dissanayake M¹, Chathurangika H¹, Dissanayake B¹, Jayamali J¹, Amarasekara U¹, Ariyaratna D¹, Malavige N^{1,2}, Jeewandara C^{1,2}

¹*Institute of Allergology and Immunology, University of Sri Jayewardenepura*

²*Department of Immunology and Molecular medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura*

Background: Diagnosing drug hypersensitivity remains challenging in resource-limited settings where drug provocation testing (DPT) is often unavailable. This study evaluated the clinical utility of basophil activation testing (BAT) as an adjunctive diagnostic tool in the assessment of drug hypersensitivity reactions in Sri Lanka.

Methods: We prospectively enrolled 57 patients (50 females, 7 males; mean age 42.3 years, range 7 -72 years) with documented drug hypersensitivity reactions between March 2024 and June 2025. All patients underwent clinical assessment and skin prick testing (SPT). BAT was performed in selected patients with negative or inconclusive SPT results, in selected SPT-positive patients for further evaluation, and in patients at higher risk where DPT was not feasible. Basophil activation was assessed by flow cytometric measurement of CD63 expression.

Results: Beta-lactam antibiotics (57.9%) and non-steroidal anti-inflammatory drugs (NSAIDs) (36.8%) were the most frequently implicated drugs. SPT positivity was highest for co-amoxiclav (38.5%), amoxicillin (35.7%), cefuroxime (35.0%), and penicillin (33.3%). BAT demonstrated positive responses for cefuroxime (61.5%), ibuprofen (66.7%), atracurium (66.7%), mefenamic acid (54.5%), amoxicillin (44.4%), paracetamol (20.0%), penicillin (12.5%), and co-amoxiclav (6.3%). Overall, BAT was positive in 35/85 (41.18%) tests, compared with positivity rates of 49.41% for SPT and 57.9% based on clinical history. BAT provided additional supportive evidence in selected patients with negative or equivocal SPT findings, particularly when DPT was not feasible.

Conclusions: BAT may serve as a useful adjunct to clinical history and skin testing for evaluating selected patients with drug hypersensitivity in resource-limited settings.

Data-Driven Dengue Forecasting: Machine Learning for High-Burden Districts in Sri Lanka

Sandaruwan WWPA¹, Seneviwickrama KLMD², Sampath DMA3, Kavindi KHAC⁴

¹*National Nephrology Specialized Hospital, Polonnaruwa*

²*Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura*

³*Faculty of Engineering, University of Sri Jayewardenepura*

⁴*Faculty of Engineering, University of Ruhuna*

Introduction and Objectives: Dengue causes significant disease burden for Sri Lankan health sector annually. Our aim was to develop district-specific machine learning models for Colombo, Gampaha, and Kandy, the districts with the highest historical dengue cases. These models were to utilize past data and predict future dengue cases in districts, providing early warning for dengue outbreaks to direct vector control and other health resources effectively.

Method: Weekly dengue cases (2010–2025) were obtained from the weekly epidemiological reports published by the Epidemiology Unit of Ministry of Health. Past weather data for the same time period were obtained via Open-Meteo API. We engineered lag features at multiple weekly intervals capturing past case trends, then trained and validated Random Forest models on observed data using Scikit-learn and other Python libraries. Models were ranked by r^2 score, and the top performer for each district advanced to validation.

Results: In the training dataset for year 2024, all models achieved strong performance (Colombo: $r^2 = 0.94$; Gampaha and Kandy: $r^2 = 0.87$). Using 2025 validation data, Kandy performed best ($r^2 = 0.69$, MAE = 14.25). Notably, historical dengue case trends were the strongest predictor of future cases, followed by weather patterns.

Conclusions: These models offer a practical tool for early dengue detection in Sri Lanka. By capturing non-linear patterns that traditional methods miss, they could enable public health systems to mobilize resources more effectively before outbreaks peak. This approach demonstrates machine learning's potential to strengthen dengue surveillance and response capacity in resource-constrained settings.

Data Quality Assessment of the Electronic Indoor Morbidity and Mortality Reporting (eIMMR) System in a Hospital in Sri Lanka

Samarawickrama SAH¹, Hewapathirana R², Dayaratne MKDRB¹

¹*Ministry of Health, Sri Lanka*

²*Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives: The Electronic Indoor Morbidity and Mortality Reporting (eIMMR) system is the main source of inpatient morbidity and mortality statistics reporting system, used for Healthcare planning and surveillance in Sri Lanka. However, concerns remain on completeness, timeliness, accuracy and internal consistency. This study assessed eIMMR data quality, identified contributory system factors, and proposed improvement measures.

Method: A mixed-methods study was conducted in four phases. The 2023 national eIMMR dataset was analysed for completeness, timeliness and internal consistency using missing Bed Head Ticket (BHT) numbers, submission delays and selected non-specific ICD-10 R-codes. Institutional accuracy was assessed at Colombo South Teaching Hospital by comparing 427 randomly selected BHTs from October-November 2024 with corresponding eIMMR records. Semi-structured interviews with 13 stakeholders were thematically analysed using NVivo. Findings were synthesised to develop recommendations.

Results: National completeness was high (97.24%), although 199,395 BHTs were missing. Timeliness was variable, with the longest delay at initial data entry (average 150 days). Use of selected non-specific R-codes was generally low; R69 was the commonest major code (1.69%). At institutional level, diagnosis documentation errors (10%) exceeded ICD-10 coding errors (3%). Data entry mismatches were found for age (3.27%), date of discharge (2.34%), ICD-10 code (1.87%) and gender (1.17%). Qualitative findings identified weak quality assurance, limited ICD-10 coding and diagnosis documentation knowledge, workflow barriers, Reflections and need for system-level improvements.

Conclusions: eIMMR data quality issues are multifactorial. Strengthening clinical documentation, ICD-10 training, workflow accountability and built-in validation is essential to improve the reliability of national morbidity and mortality data.

Development and psychometric validation of a questionnaire to assess doctors' perception and practice of artificial intelligence

Herath SM¹, Madusanka IP¹, Fernando DR¹, Dissanayake H¹, Ponnamparuma G¹, Hewapathirana R¹, Katulanda P¹

¹Faculty of Medicine, University of Colombo

Background: Artificial intelligence (AI) is increasingly integrated into healthcare delivery, yet no validated instrument has been made to assess doctors' perception and practice towards AI in the Sri Lankan setting. A contextually appropriate scale is needed for low- and middle-income country healthcare settings to assess doctors' perception and practice towards AI.

Objective: To develop and psychometrically validate a scale for assessing doctors' perception and practice of AI in healthcare.

Methods: A two-phase scale validation study was conducted. In the first phase, an initial 19-item pool was generated through a literature review. Six subject matter experts evaluated the instrument, and content validity was assessed using the Item-Content Validity Index (I-CVI) and modified Cohen's kappa. The instrument was subsequently pre-tested using 10 cognitive interviews. In the second phase, the refined instrument was administered to 200 doctors at the National Hospital, Colombo. Exploratory factor analysis (EFA) was performed to examine the underlying factor structure, and internal consistency was assessed using Cronbach's alpha.

Results: Based on the I-CVI and Cohen's kappa, 2 items were discarded, resulting in a 17-item instrument. The average S-CVI yielded was 0.80, indicating acceptable content validity. EFA yielded a four-factor structure: practice of AI (Cronbach's $\alpha=0.86$), perceived concerns (Cronbach's $\alpha=0.67$), perceived acceptance (Cronbach's $\alpha=0.74$), and perceived benefits (Cronbach's $\alpha=0.79$).

Conclusion: The validated 17-item instrument demonstrated satisfactory psychometric properties and a four-factor structure, providing a reliable measure of doctors' perception and practice of AI in healthcare. Future studies should employ confirmatory factor analysis and other psychometric evaluations to further validate this structure.

Self-registration with barcode capture of national identity card for outpatient encounters: design and operational outcomes

Dissanayake SADPC¹ , Rahumath M.C.R.¹ , Jayarathne A.¹ , Hapudeniya M.¹

¹*HIMU, The National Hospital of Sri Lanka*

Introduction and Objectives. Counter-based outpatient registration in Sri Lankan hospitals creates patient-flow bottlenecks and high clerical workload, and manual transcription is error-prone. The latest National Identity Card (NIC) carries a barcode encoding the NIC number, enabling rapid, accurate self-identification. This study evaluates the design, deployment and operational outcomes of self-service kiosks allowing patients to register for outpatient encounters by scanning their NIC, with automated integration into the Hospital Health Information Management System (HHIMS) through an FHIR-enabled middleware (FHMS).

Method. Four kiosks were deployed at the main outpatient registration area. A patient-facing web application supported two pathways: NIC barcode scan, and manual self-entry of demographic data. Records were routed by FHMS Core to HHIMS for automated Personal Health Number (PHN) assignment, with parallel synchronisation to an external FHIR server. Retrospective analysis of routinely collected, de-identified operational logs examined usage, throughput and integration outcomes.

Results. Over seven months, 6,237 self-registrations were captured across 162 active days, averaging 38.5 per day. Monthly throughput averaged 931 registrations, projecting to approximately 11,200 annually. FHMS Core assigned a PHN from HHIMS to 5,856 (93.9%) records, with 381 (6.1%) pending at analysis; parallel synchronisation to the external FHIR server was concurrently operational.

Conclusions. Patient-driven outpatient registration combining NIC barcode capture with self-entry, supported by FHIR-mediated integration with HHIMS, is operationally feasible in a high-volume setting, achieving over 6,000 registrations and high rates of automated PHN assignment within seven months. The approach offers a pragmatic model for improving data quality in resource-constrained outpatient services.

District-Wise Trends and Leading Causes of Maternal Mortality in Sri Lanka: A Secondary Data Analysis From 2014–2023

Gallage R.D.¹, Jayathilaka I.K.M.S.S.¹, Abeykoon W.D.S.E.¹, Athapattu Y.T.¹,
Abeyagunawardena S.², Pathirage L.P.M.M.K.²

¹*Department of Family Medicine, Faculty of Medicine, University of Peradeniya*

²*Department of Medicine, Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Maternal mortality remains an important public health indicator reflecting the quality of maternal healthcare services in Sri Lanka. District-level variations in Maternal Mortality Ratio (MMR) may indicate inequities in access to and quality of care. We aimed to describe temporal and district-wise trends in maternal mortality in Sri Lanka from 2014–2023 and identify major causes of maternal deaths.

Methodology: A descriptive secondary data analysis was conducted using maternal mortality data extracted from annual reports of the Family Health Bureau from 2014–2023. District-wise MMR trends and maternal deaths were analyzed descriptively. Districts with the highest average MMRs across the study period were identified, and trends were categorized as increasing, decreasing, or static. Major causes of maternal mortality were summarized using frequencies.

Results: National MMR fluctuated between 25.0 and 46.6 per 100,000 live births during the study period. Districts with the highest mean MMRs were Mullaitivu(110.8), Nuwara Eliya(57.0), Trincomalee(53.3), Gampaha(52.0), and Kegalle(51.1) per 100,000 live births. Increasing trends in MMR were observed in Mullaitivu, Nuwara Eliya, Trincomalee, and Kegalle, whereas Gampaha demonstrated a gradual decline despite persistently high values. Heart disease(146), respiratory diseases(121), Obstetric hemorrhage(120), sepsis(65) and hypertensive disorders(61) were consistently identified among the five leading causes of maternal deaths across the years reviewed. Notably, respiratory mortality(61) peaked in 2021 during COVID-19 pandemic.

Conclusion: Considerable inter-district disparities in maternal mortality persist in Sri Lanka. Strengthening targeted maternal health interventions and improving early detection and management of indirect medical conditions may help reduce preventable maternal deaths in high-risk districts.

Clinician-led, AI-assisted development of a surgical ICU bed-booking system at a tertiary care hospital

Rahumath MCR¹, Dissanayake SADPC¹, Hapudeniya M¹, Jayarathne A¹

¹*Health Information Management Unit, The National Hospital of Sri Lanka*

Introduction and Objectives: Surgical intensive care unit (SICU) bed allocation at a high-volume tertiary care hospital depended on two ICUs maintaining separate paper booking registers. House officers physically walked to each ICU to request, with no shared visibility between units. Duplicate bookings were routine: both ICUs would prepare to receive the same patient, discovering the conflict only when the patient failed to arrive, then telephoning the ward to identify the next eligible candidate. The cycle exhausted ICU medical officers and produced opaque, unauditible queues. We aimed to replace this with a real-time shared digital workflow developed by clinicians.

Method: Medical officers with domain and health informatics expertise designed and built a custom web application, using artificial intelligence as a development accelerator. Requests progress through eleven defined stages visible simultaneously to requesting and receiving units. The application was deployed alongside existing services on a shared hospital server. Active usage, request throughput, workflow timing and resource footprint were analysed over the first 7.5 months of production operation. No individually identifiable patient information was accessed.

Results: A total of 347 doctors actively used the system, processing 1,807 bed-booking requests for 1,660 unique patients across 52 wards, 21 operating theatres and two SICUs. Mean throughput was 240 requests per month. Duplicate bookings were eliminated. System occupied 9 MB of disk and 2.5 MB of database storage. The system carries zero licensing cost and no external dependencies.

Conclusions: AI-accelerated Clinician-led development delivered a production-grade system that eliminated a chronic operational failure at negligible cost and infrastructure footprint.

Knowledge, Attitude, and Practice Towards Stroke Among Patients With Non-Communicable Diseases Attending Medical Clinics at A Tertiary Care Hospital

Perera DCH¹, Perera JKPN¹, Perera KDS¹, Perera MDMVH¹, Perera PKDT¹, Pathirage LPMMK¹

¹*Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Stroke is a leading cause of disability and mortality worldwide, with an increasing burden in Sri Lanka. Patients with non-communicable diseases (NCDs) are at higher risk, yet their knowledge, attitudes, and practices (KAP) regarding stroke remain inadequately explored. This study evaluated KAP on stroke among NCD patients attending a tertiary care hospital in Sri Lanka.

Methodology: A descriptive cross-sectional study was conducted among 425 adult patients attending medical clinics at Teaching Hospital Peradeniya in March 2026. Data were collected using a pre-tested, interviewer-administered structured questionnaire assessing socio-demographic characteristics and KAP domains. KAP scores were calculated using standardized scoring systems.

Results: The mean age was 58.0 ± 12.4 years, with a female predominance (67.53%) and majority of

participants (83.53%) were well-educated, having reached the Ordinary-Level or above. Only 49.88% correctly identified the brain as the affected organ. Commonly recognized symptoms were sudden unilateral weakness (92.49%) and speech difficulty (91.78%). Hypertension (84.98%) and diabetes mellitus (56.10%) were identified as risk factors. Although 283(66.58%) were aware of thrombolysis therapy, only 106(24.94%) correctly identified the recommended 4.5-hour therapeutic window, and just 35(8.24%) had obtained this information from healthcare professionals. Moderate positive correlations were observed between knowledge and attitudes ($r = 0.339$), knowledge and practices ($r = 0.340$), and attitudes and practices ($r = 0.312$).

Conclusion: Despite a reasonable level of awareness regarding stroke symptoms and risk factors, important knowledge gaps persist, particularly concerning time-sensitive treatment. Targeted educational interventions, especially through healthcare providers, are essential to improve timely healthcare-seeking behavior among high-risk populations.

Fear of Falling in Parkinson's Disease: Prevalence, Motor Correlates, and Association with Self-Reported Medication Effectiveness - A Cross-Sectional Study from Two Tertiary Hospitals in Sri Lanka

Yasoda SGG¹ , Thambavita TMDD²

¹*Department of Allied Health Sciences, Faculty of Medicine, University of Colombo*

²*Department of Pharmacology, Faculty of Medicine, University of Colombo*

Introduction and Objectives: Parkinson's disease (PD) is a progressive neurodegenerative movement disorder in which fear of falling (FOF) is a prevalent and disabling concern. This study determined the prevalence of FOF and examined its associations with gait speed, freezing of gait (FOG), postural instability, knee muscle strength, and self-reported medication effectiveness.

Methods: An analytical cross-sectional study was conducted among 90 patients with PD (aged 40-80 years) attending National Hospital of Sri Lanka and Colombo North Teaching Hospital, recruited by consecutive sampling. FOF, FOG, self-reported medication effectiveness, gait speed, postural instability, and knee muscle strength were assessed using the Falls Efficacy Scale International (FES-I; validated cut-off >28 indicating high concern), Freezing of Gait Questionnaire (FOG-Q), Parkinson's Disease Medication Beliefs Scale (PD-Rx), 10-Meter Walk Test (10MWT), Timed Up and Go Test (TUG), and hand-held dynamometer. Spearman's correlation was used given the non-normal distribution of variables; disease severity and medication dosage were not adjusted for in this analysis.

Results: Mean participants age was 58.49 ± 9.48 years. High FOF concern (FES-I score >28) was identified in 71.1% of participants. FOF showed significant positive correlations with FOG ($r_s=0.652$, $p<0.001$), postural instability ($r_s=0.329$, $p=0.002$), age ($r_s=0.366$, $p<0.001$), and disease duration ($r_s=0.377$, $p<0.001$), and significant negative correlations with gait speed ($r_s=-0.557$, $p<0.001$), self-reported medication effectiveness ($r_s=-0.341$, $p=0.001$), and knee muscle strength ($r_s=-0.228$, $p=0.031$). No significant association was found with gender.

Conclusion: FOF is highly prevalent among PD and was significantly associated with reduced gait speed, freezing episodes, postural instability, and reduced knee muscle strength, and poorer self-reported medication effectiveness, though causality cannot be inferred from this cross-sectional design. Given the modest sample size and reliance on self-reported medication effectiveness, findings should be interpreted cautiously and confirmed in larger, longitudinal studies incorporating objective measures of disease severity and medication adherence.

Demographic and clinical predictors of presentation within the thrombolytic window among stroke patients at Teaching Hospital Peradeniya: a retrospective analysis

Waidyatilleke SR¹, Shantha DWA², Wickramasinghe GAMDS³, Wickramasingha BKGAA³, Bandara TWMTW³, Pathirage LPMMK¹

¹Department of Medicine, Faculty of Medicine, University of Peradeniya

²Medical Unit, Teaching Hospital, Peradeniya

³Department of Geography, Faculty of Arts, University of Peradeniya

Introduction and Objectives: Prompt administration of thrombolytic therapy is fundamental to managing acute ischaemic stroke. This study aimed to identify independent geographic, demographic, clinical, and pharmacological predictors of presentation within the thrombolytic window among patients in the Peradeniya Stroke Registry.

Methods: A retrospective analysis was conducted on the Peradeniya Stroke Registry. The primary outcome was binary: presentation within versus beyond the thrombolytic window. Patients' addresses were geocoded via a Google API-based geocoder (n=1,280), with mismatches manually verified. Travel distance (km) to Teaching Hospital Peradeniya was derived using Network Analysis (ArcGIS Pro 3.6), based on road-type ideal speeds. Bivariate binary logistic regressions screened candidate predictors; age (continuous), gender, clinical features, risk factors, patients' routine medication, together with travel distance, were entered into a multivariable model using forced entry. CT findings were excluded as non-predictive diagnostic information.

Results: Of 1,082 patients with valid outcome data, 51.5% presented within the thrombolytic window. The final multivariable model was statistically significant ($\Delta X^2(14)=49.30$, $p<.001$; Nagelkerke $R^2=.059$). Beta-blocker use (OR=3.45, $p=.002$) and weakness (OR=1.53, $p=.025$) were independently associated with within-window presentation, while diabetes mellitus (OR=0.72, $p=.017$) and insulin use (OR=0.54, $p=.042$) were independently associated with reduced odds of timely arrival. Altered consciousness (OR=1.32, $p=.057$), past TIA (OR=1.69, $p=.071$), family history of stroke (OR=1.56, $p=.088$), and travel distance (OR=0.996/km, $p=.086$) showed similar non-significant trends. Overall model accuracy was 58.6% (sensitivity 65.2%, specificity 51.6%).

Conclusions: Previous beta-blocker therapy and prominent neurological deficits were associated with timely presentation, whereas diabetes mellitus and insulin therapy were associated with delayed arrival. Geographic distance contributed only marginally. These findings highlight potentially modifiable factors that warrant further prospective evaluation to inform targeted public education and triage strategies aimed at improving thrombolysis eligibility rates.

Grading the severity of the Cases of Chronic Inflammatory Demyelinating Polyradiculoneuropathy based on the INCAT (Inflammatory Neuropathy Cause and Treatment) disability score and the requirement of multiple modes of immunotherapy within a year of onset of the disease.

Premarathna ABNN¹, Fernando A,

¹*Institute of Neurology, National Hospital Sri Lanka*

²*Institute of Neurology, National Hospital Sri Lanka*

Introduction and Objectives: Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP) is an immune mediated disease that is affecting the peripheral nervous system. It has a prevalence that ranges in between 1-8.9 per 100000 persons. Immunotherapy lies the mainstay of therapy and majority of patients receive multiple modes of immunotherapy to be stable and to reduce the level of disability. Primary objective of this study is to check whether patients with higher INCAT scores are having a delayed recovery at the end one year of follow up requiring multiple modes of immunotherapy.

Method: A prospective observational study which recruited 86 patients who were above 18 years of age was done in the neurology department in National Hospital Sri Lanka from January 2022 to January 2023. A pre-tested interviewer administered questionnaire was used to collect data and the latter was analysed using SPSS software.

Results: Regression analysis of both the upper and lower limb INCAT scores (comparison of the value during the first encounter with the end of year value) show a significance of 0.03 and less than 0.01 respectively. Significance testing of the utility of each of the three modalities of immunotherapy (Methylprednisolone, Immunoglobulin and Plasma exchange) in comparison to the INCAT scores during the first encounter, reveals a significance value that is less than 0.05 for each.

Conclusions: INCAT score predicts the severity of the disease, outcome and the requirement of multiple modes of immunotherapy in CIDP even at the very beginning especially in moderate to severe and very severe cases.

Prevalence and clinical characterization of epilepsy among adolescents in Western Sri Lanka: A school-based cross-sectional study

Wanigasinghe J¹, Arambepola C², Edirisinghe CM¹, Weerasinghe PVID¹, Athukorala NS¹, Gooneratne IK³, Chang T⁴

¹*Department of Paediatrics, University of Colombo, Sri Lanka;*

²*Department of Community Medicine, University of Colombo, Sri Lanka;*

³*Department of Medicine, University of Kelaniya, Sri Lanka;*

⁴*Department of Clinical Medicine, University of Colombo, Sri Lanka*

Introduction: Epilepsy in adolescents (10-19 years) poses multi-dimensional clinical and socio-cultural challenges. This study estimates the prevalence, clinical characteristics, and seizure control of epilepsy among adolescents in Western Sri Lanka, addressing the limited availability of age-specific data from South Asia.

Methodology: A school-based cross-sectional study was conducted among adolescents aged 10–19 years using a two-stage stratified cluster sampling method. A total of 4,900 students were randomly selected from 196 clusters (cluster size=25), of whom 3,533 (72.1%) responded. Screening was performed using a previously validated questionnaire, followed by telephone or face-to-face confirmation. Epilepsy classification was based on International League Against Epilepsy (ILAE) frameworks, and seizure control was assessed using the ILAE outcome scale.

Results: Eleven adolescents were diagnosed with epilepsy, yielding a point prevalence of 3.11 per 1000(95%CI: 1.28–4.95). Prevalence was slightly higher in females (3.40;95%CI: 0.68-6.11 per 1000) than males (2.85; 95%CI: 0.35-5.34 per 1000), and increased across age groups from early to late adolescence. Focal epilepsy was the predominant type. Six adolescents had adolescent-onset epilepsy, while five had persistence from childhood. Active epilepsy was present in 64%. Most participants demonstrated good seizure control (ILAE class 1-3), although 36% had poor control, primarily associated with structural and autoimmune aetiologies.

Conclusion: This study addresses target 4.1 of the Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders, providing important baseline epidemiological data on adolescent epilepsy in Sri Lanka. The favourable seizure control highlights the need for targeted adolescent services that address the broader impact of epilepsy in this age group.

A Digitalized Approach to Event-Based Surveillance: Design and Deployment of a Community-Sourced Health Signal Reporting Portal in Sri Lanka

Chandrasena H¹, Karunapema P¹, Liyanage P¹, Illangasinghe P¹, Fernando M¹, Abeykoon P¹

¹*Epidemiology Unit, Ministry of Health & Mass Media, ⁶ Provincial Department Health Service, Southern Province,*

Introduction: Event-Based Surveillance (EBS) is a multifaceted mechanism capturing signals from diverse, multiform platforms. While digital reporting is a single component, its role is pivotal for early warning. This study describes the design of a robust, secured digital portal intended to decentralize signal detection and maintain a formal institutional rumor registry in Sri Lanka.

Methodology: A public health informatics framework was engineered using a cloud-based architecture to ensure well-secured and robust data handling. To maximize community participation, the system prioritizes a "zero-friction" interface, allowing fast, easy, and anonymous reporting without authentication. Users localize events via a structured hierarchy (District, MOH, and GN Division). The backend utilizes a real-time dashboard for Medical Officers of Health to triage reports into a centralized rumor registry for institutional verification.

Results: The deployment established a streamlined pipeline for community-sourced signals, including unusual clusters and environmental hazards. The Unicode-compliant system ensured data integrity in Sinhala and Tamil, while the secured database provided a reliable foundation for long-term rumor tracking. By simplifying the reporting process, the portal bridged the gap between informal community observations and formal institutional responses.

Conclusion: This digitalized EBS approach demonstrates that a fast, secure, and user-friendly community portal can effectively capture grassroots signals. By maintaining an organized rumor registry, institutions can improve the timeliness and accuracy of public health interventions in Sri Lanka.

Long term trends in the government health expenditure in Sri Lanka 2004 to 2024

Aruppola ALGK¹, Sari DK², Dharmaratne SD¹

¹ *Department of Community Medicine, Faculty of Medicine, University of Peradeniya*

² *Department of Nutrition, Faculty of Medicine, University Sumatera Utara, Medan, Indonesia*

Introduction and Objectives: Health expenditure is strongly associated with health outcomes in low and middle-income settings than in high-income countries. Income level and population ageing are key determinants of national health spending. Sri Lanka, a middle-income country undergoing rapid demographic ageing, requires timely evaluation of health expenditure trends. Therefore, this study aimed to assess long term trends in the government health expenditure in Sri Lanka 2004 to 2024.

Methods: A descriptive study was conducted. Data on national expenditure, health expenditure and gross national product data were extracted from annual health bulletins (2004–2024) and were analysed using IBM SPSS.

Results: Total national expenditure and health expenditure increased over the study period, with per capita expenditure showing a similar upward trend. However, health expenditure as a percentage of national expenditure declined after peaking at 7.6% in 2006, reaching 3.86% in 2023. Government health expenditure as a percentage of gross national product remained below 2% during the past decade. It decreased from 2004 to 2012, fluctuated thereafter, declined in 2021, and showed a modest increase towards 2024. The CAGR for total health expenditure was 13.56%, while per capita expenditure grew at 12.89%.

Conclusions: Although absolute health expenditure has increased, its relative share of national expenditure and gross national product remains low and inconsistent. The observed growth rates may be insufficient to meet rising healthcare demands associated with demographic and epidemiological transitions. Strengthening health financing through sustained and proportionate investment is essential to ensure equitable and efficient healthcare delivery in Sri Lanka.

The Effect of Yoga on Metabolic Health of Middle-Aged People: A Systematic Review

Moonasinghe P.M¹, and Chandraratne N.K²

¹*Regional Director of Health Service office, Colombo,*

²*Faculty of Medicine, University of Colombo,*

²*Department of Community Medicine, Faculty of Medicine, University of Colombo.*

Introduction:

Metabolic disorders, including central obesity, type 2 diabetes mellitus, dyslipidemia, and metabolic syndrome, are highly prevalent among middle-aged populations and significantly increase cardiovascular risk. Yoga has been proposed as a holistic, non-pharmacological intervention to improve metabolic health. This systematic review aimed to synthesize evidence on the effectiveness of yoga in improving anthropometric, glycemic, lipid, and cardiovascular outcomes among middle-aged adults.

Methods:

A systematic search of PubMed and the Cochrane Central Register of Controlled Trials was conducted for studies published between 2015 and 2025, following PRISMA guidelines. Randomized controlled trials, quasi-experimental, and interventional studies involving adults aged 30–60 years were included. Eligible interventions incorporated asanas, pranayama, and meditation. Primary outcomes included anthropometric measures, blood glucose, and lipid profile; secondary outcomes included blood pressure and quality of life. Risk of bias and methodological quality were assessed.

Results:

A total of 15 studies involving approximately 1,161 participants were included, of which 10 were randomized controlled trials. Yoga interventions (6 weeks to 1 year) demonstrated significant reductions in waist circumference, body mass index, and waist–hip ratio. Improvements were consistently observed in fasting and postprandial glucose and HbA1c levels. Lipid profiles improved, with reductions in total cholesterol, triglycerides, and low-density lipoprotein, and increased high-density lipoprotein. Additional benefits included improved blood pressure, physical performance, and psychological well-being. However, notable heterogeneity existed across studies.

Conclusion:

Yoga appears to be an effective complementary intervention for improving metabolic health among middle-aged adults. Further high-quality, large-scale randomized controlled trials are needed to strengthen the evidence base and inform clinical recommendations.

Body image dissatisfaction among school-going adolescents aged 16–19 years in Galle District, Sri Lanka

Kulathunga PARI^{1,2}, De Silva PV¹, Wijesinghe CJ^{1,2}

¹*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Sri Lanka*

²*Center for Public Health Nutrition Education and Research, Faculty of Medicine, University of Ruhuna, Sri Lanka*

Introduction and objective

Body image dissatisfaction is a growing public health concern during adolescence because it is associated with low self-esteem, disordered eating behaviours, depression, anxiety, and reduced quality of life. Despite its importance, evidence on body image dissatisfaction among Sri Lankan school-going adolescents remains limited. This study aimed to assess body image dissatisfaction among school-going adolescents aged 16–19 years in Galle District, Sri Lanka.

Methods

A school-based cross-sectional study was conducted among 876 school-going adolescents aged 16–19 years selected using cluster sampling. Body image dissatisfaction was assessed using the validated Sinhala versions of the gender-specific Body Image Questionnaires. As the questionnaires do not provide an established overall cut-off score, body image dissatisfaction was assessed at the item level. Participants reporting either moderate or strong dissatisfactory feelings regarding the appearance and shape of the body were classified as having body image dissatisfaction. Item-wise dissatisfaction for specific body parts was also assessed. Mean affective body image scores were compared between subgroups using independent samples *t*-tests.

Results

The mean (SD) age of participants was 16.3 (± 0.6) years. Majority were females (51.4%) and Sinhalese (87.2%). Dissatisfaction with the appearance and shape of the body was reported by 13.6% of males and 27.4% of females. Among males, dissatisfaction was most frequently reported for the abdomen (22.4%), chest (16.0%), thighs (15.5%), waist (12.5%), and hips (10.1%). Among females, dissatisfaction was highest for the abdomen (24.3%), hips (13.4%), waist (13.2%), thighs (11.5%), and breasts (8.6%). Female adolescents had significantly lower mean body image scores than males ($t = 11.1$, $p < 0.001$), indicating greater body dissatisfaction. Advanced Level students also had significantly lower mean scores than Ordinary Level students ($t = 2.2$, $p = 0.03$), indicating greater body dissatisfaction.

Conclusion

Body image dissatisfaction was evident among a considerable proportion of school-going adolescents, particularly females. Female and Advanced Level students demonstrated greater body dissatisfaction than their counterparts. These findings support the need for school-based programmes that promote positive body image and adolescent mental well-being and provide baseline evidence for future research and public health interventions in Sri Lanka.

Self-medication practices and associated factors among garment factory workers in the Mawathagama free trade zone

Fawaz HMM¹, Dushyanth M¹, Edirisinghe EALW¹, Ekanayaka MWSS¹, Atapattu AHKS²

¹*Undergraduate, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction: Self-medication, defined as the use of medicines without professional medical advice, is an increasing public health concern, particularly in low- and middle-income countries. In Sri Lanka, this practice is rising due to easy access to medications, financial constraints, and limited awareness of risks. Garment factory workers represent a vulnerable group due to long working hours, restricted access to healthcare, and pressure to minimize absenteeism. However, evidence regarding self-medication in this population remains limited.

Objectives: To assess the prevalence of self-medication practices and associated factors among garment factory workers in the Mawathagama free trade zone

Methods: A descriptive cross-sectional study with an analytical component was conducted among 189 garment workers selected using systematic sampling. Data were collected using a pre-tested, interviewer-administered questionnaire developed through literature review and expert validation. Information on socio-demographic characteristics, prevalence, patterns, and associated factors of self-medication was obtained. Data were analyzed using descriptive and inferential statistics, with Chi-square tests to assess associations.

Results: Self-medication was reported by 73% of participants within the past three months. Analgesics (97.1%) were most commonly used, followed by antihistamines and antacids. Most obtained medicines directly from pharmacies without prescriptions, while some used leftover drugs. Main reasons for self-medication included convenience (68.8%), perceived minor illness (51.4%), and saving time (47.8%). Patterns of self-medication were consistent across age groups, with statistically nonsignificant variations by education or income.

Conclusion: Self-medication is highly prevalent among garment factory workers, largely driven by convenience and perceived minor illness. Higher income and education showed increased tendency towards self-medication.

Respect and Social Inclusion in Age-Friendly Cities: Perceptions and Associated Factors among Older Persons in Sri Lanka

Walpita N.B¹, Maduwage.S¹, Prathapan.S²

¹*Ministry of Health and Mass Media, Sri Lanka*

²*Faculty of Medicine, University of Sri Jayawardenapura, Sri Lanka*

Introduction and Objectives: Sri Lanka is experiencing rapid ageing and urbanization posing significant demographic and public health challenges. Respect and social inclusion is a key domain of the World Health Organization age-friendly cities framework, yet evidence on older persons perceptions is limited in Sri Lanka. Assessing the perception of age friendliness in cities in relation to this domain and its associated factors is essential to understand how urban environments support respect and social inclusion.

Method: A community based cross-sectional study was conducted among 808 older persons in the Colombo district using multistage cluster sampling. Data were collected using a locally developed and validated tool and an interviewer-administered questionnaire. Chi square tests and multivariable logistic regression were used for analysis.

Results: Prevalence of “ higher perception of age friendliness” was 49.1% (95% CI= 45.7 – 52.6). The statistically significant associated factors were: Absence of a physical disability (AOR= 1.57, 95% CI= 1.07 – 2.30, p = 0.021), participation to a day centre (AOR= 1.93, 95% CI= 1.28 – 2.93, p = 0.002), societal attitude of respecting and valuing older persons (AOR= 3.80, 95% CI= 2.16 – 6.67, p<0.001). Not considering insufficient funding for services (AOR= 1.87, 95% CI= 1.30- 2.69, p=0.001) and not considering lack of training of service providers (AOR= 1.61, 95% CI= 1.16- 2.25, p=0.004) were also positively associated.

Conclusions: Enhancing supportive physical and social environments, promoting community engagement and fostering positive attitudes towards older persons are essential to improve age friendliness perceptions of older persons in Sri Lanka.

Prevalence, Associated Factors, and Work-Related Impact of Musculoskeletal Symptoms among Pottery Workers in a Selected Divisional Secretariat Area in Matara District, Sri Lanka.

Sewwandi EN¹, Silva FHDS²

¹*Department of Nursing & Midwifery, Faculty of Allied Health Sciences, University of Sri Jayewardenepura.*

²*Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura.*

Introduction and Objectives: Musculoskeletal symptoms (MSSs) are common occupational health problems among workers engaged in physically demanding activities. Pottery workers are particularly vulnerable due to repetitive movements, awkward postures, prolonged working hours, and limited ergonomic support. Local evidence on this occupational group remains limited in Sri Lanka. Study aims to determine the prevalence, associated factors, and work-related impact of musculoskeletal symptoms among pottery workers in a selected Divisional Secretariat area in Matara District, Sri Lanka.

Method: A descriptive cross-sectional study was conducted among 185 pottery workers recruited through convenience sampling. Data were collected using an interviewer-administered structured questionnaire incorporating the Nordic Musculoskeletal Questionnaire and the Cornell Musculoskeletal Discomfort Questionnaire. Associations between MSSs and socio-demographic, occupational, and lifestyle factors were assessed using bivariate analysis (Chi-square test).

Results: The prevalence of MSS was 76.2% (141/185). The lower back was the most affected region (93/185, 50.0%), followed by the ankle/foot (44/185, 23.8%) and knee (44/185, 23.8%; CI: 17.7–30.0%). On bivariate analysis, MSSs were significantly associated with age ($p < 0.001$), gender ($p = 0.003$), education level ($p < 0.001$), work experience ($p < 0.001$), wheel-throwing task ($p = 0.033$), smoking ($p < 0.001$), and alcohol consumption ($p = 0.037$). Females and workers with longer work experience reported a higher prevalence of symptoms.

Although most affected workers reported no interference with daily activities, lower back symptoms had the greatest work-related impact, with 39/93 (41.6%) reporting interference.

Conclusion: This study found a high prevalence of musculoskeletal symptoms among pottery workers, with the lower back most commonly affected. Several socio-demographic, occupational, and lifestyle factors showed significant bivariate associations with MSSs; however, as the analysis did not adjust for potential confounders and the cross-sectional design precludes causal or temporal inference, these findings should be interpreted as associations rather than causal relationships. The use of convenience sampling further limits the generalizability of results to the wider population of pottery workers. Findings nonetheless underscore the need for ergonomic interventions, occupational health education, and preventive strategies, and support further multivariable and longitudinal research to confirm these associations.

Prevalence, Associated Factors and the Treatment-Seeking Behaviours for Selected Sexual Health Problems in the First Postpartum Year Among Women in Yatinuwara Medical Officer of Health Area, Kandy District

Katugaha BHMRH¹ Rajapaksha DI² Ranasinghe AWIP³

¹*MOH Office, Yatinuwara*

²*National STD/AIDS Control Programme, Colombo*

³*RDHS Office, Kandy*

Introduction and Objectives: Childbirth results many changes in woman's life, adversely affecting the sexual function during first postpartum year. In Sri Lanka, these problems are often underreported. The study aimed to describe the prevalence, associated factors, and treatment-seeking behaviours for selected sexual health problems among women in the first postpartum year in Yatinuwara MOH area.

Method: A community based cross-sectional descriptive study was conducted among 464 women within first postpartum year, using multistage systematic sampling. A pre-tested, interviewer-administered questionnaire based on DSM 5 was used. Associations were assessed using the Chi-square. Odds ratios with 95% confidence intervals were calculated.

Results: Response rate was 95.8%. Sexual intercourse resumed in 68.5%, at a median of 12 weeks postpartum (IQR: 8.0–12.5 weeks). Overall prevalence was 5.2% (95% CI 3.2 –7.2%), including lack sexual desire in 2.4% (95% CI: 1.3–4.2%), dyspareunia in 1.3% (95% CI: 0.6–2.8%), orgasmic difficulty in 0.7% (95% CI: 0.2–1.9%) and not resuming sexual intercourse as a problem in 1.5% (95% CI: 0.7–3.1%). Higher prevalence was associated with dissatisfaction with partner support ($p=0.001$) or family support ($p=0.039$) for infant care, perceiving postpartum sexual activity unimportant (OR: 4.9, 95% CI: 1.8–13.2), and with presence of partner's behavioural changes (OR: 3.5, 95% CI: 1.5–8.0). Lower odds were significantly associated with instrumental/ operational deliveries (OR: 0.4, 95% CI: 0.2–0.9) and absence of intimate partner violence (OR: 0.2, 95% CI: 0.1–0.6). Nine out of affected 24 women (37.5%) sought treatment.

Conclusions: Prevalence of postpartum sexual problems were relatively low, and were associated with the delivery mode and partners support. Majority did not seek treatment. Qualitative research are recommended.

Knowledge, Attitude, Practices and its associated factors related to fire safety among workers at Sapugaskanda Oil Refinery, Sri Lanka

Perera UMA¹, Talagala IA²,

¹*National Institute of Mental Health, Sri Lanka*

²*Faculty of Medicine University of Moratuwa, Sri Lanka*

Introduction and Objectives: Fire outbreaks in oil refineries can result in fatalities, injuries and significant economic losses. Despite existing safety systems, minor incidents have been reported at Sapugaskanda oil refinery, indicating the need to assess workers' fire safety knowledge, attitudes, practices and associated factors.

Method: A descriptive cross-sectional study was conducted among 280 permanent workers with at-least six months of service at Sapugaskanda oil refinery, from June 2025 to January 2026. Administrative staff were excluded from the study. Study participants were selected using stratified probability proportionate random sampling. Data were collected using a self-administered questionnaire. Associations were assessed using Chi-square test at $p < 0.05$ significance level.

Results: Response rate was 92.9% (N=260). Among the participants, 98.5% (n=256) were male and 1.5% (n=4) were female. Good fire safety practices were observed among 82.3% (n=214) of workers, while 80.4% (n=209) demonstrated good fire safety knowledge. Positive attitudes were shown by 89.6% (n=233). Having good workplace conditions and strong organizational support were reported by 70.0% (n=182) and 86.5% (n=225) of them respectively. Good fire safety practices were significantly associated with younger age (<40 years), higher educational level, ≤ 10 years work experience, having favourable workplace conditions, good knowledge and positive attitudes on fire safety ($p < 0.05$).

Conclusions: Most workers demonstrated good practices, knowledge, and positive attitudes on fire safety though there were areas needing improvement. Regular conduct of targeted, focused refresher trainings, regular fire drills and simulation exercises are recommended.

Preference of Adults in Sri Lanka on Breaking the Bad News of a Diagnosed Terminal Illness and Factors Associated

De Zoysa DTN¹, Chandrakumar N¹, Dharmakeerthi HGBG¹, Rajshankar M¹, Weerawickrama DR¹, Prathapan S², Perera N³

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura*

²*Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura*

³*Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura*

Introduction: While patient autonomy is a global standard, the cultural sensitivity of disclosing terminal diagnoses remains a subject of debate. The research investigated whether adults in Colombo district, Sri Lanka prefer to be informed of a terminal diagnosis and to identify factors associated with the preferences.

Methodology: A descriptive study was conducted using an interviewer administered questionnaire on a sample of 280 adults. Medical professionals and those currently suffering from a terminal illness were excluded. A convenience sampling method was used. Significance level was 0.05.

Results: Majority (90.7%; 254) were willing to be informed about such a diagnosis. Among those preferring disclosure, 92.1% (234) wished to be informed by their doctor and 81.5% (207) at the point of diagnosis itself. 83.1% (211) wanted to be informed first, while 209 (82.3%) were willing to be educated about their life expectancy. Of the minority who preferred not to be informed of such a diagnosis, 73.1% (19) had stated they would like the information to be shared with their families instead. Statistical analysis using the Chi-square test identified age ($\chi^2=8.466$, $df=2$, $p=0.015$) and self-perceived risk-taking attitudes ($\chi^2=9.015$, $df=2$, $p=0.011$) as significant factors in willingness to be informed. Gender ($\chi^2=4.319$, $df=1$, $p=0.038$) and parental status ($\chi^2=3.869$, $df=1$, $p=0.049$) significantly influenced the desire to know the number of years that they could live.

Conclusion: Among the adults surveyed in Colombo district, most preferred immediate truth disclosure. It is vital for medical professionals to align their practices with this, ensuring patient autonomy in end-of life care.

From Scalpel to Sustainability: A Cross-sectional Study of Environmental Practices Among Doctors in Operating Theatres

Silvapulle WS¹, Jayalath NT¹, Dissanayake DMCHB¹, Wijekoon WMRS², Kanchana WPL¹

¹*Department of Surgery, Faculty of Medical Sciences, University of Sri Jayewardenepura*

²*Professorial Surgical Unit, Colombo South Teaching Hospital*

Introduction: Healthcare leaves a substantial environmental footprint, with operating theatres ranking among the most resource-intensive hospital units due to excessive energy use and waste generation. In a climate-vulnerable, developing country like Sri Lanka, sustainable surgical practices remain largely overlooked. Limited local evidence exists in this area emphasizing the need of data to implement policies and practices. This study aimed to evaluate the awareness and current practices regarding environmental sustainability among healthcare professionals working in operating theatres at a tertiary care hospital in Sri Lanka

Methodology: A prospective cross-sectional study was conducted among 65 health care professionals in general surgical theatres. Data was collected using a validated, self-administered questionnaire which evaluated demographic profiles, understanding of anesthetic gas influence on climate change, waste segregation behaviors and perceived barriers for sustainable environmental practices.

Results: Among the recruited, most were junior doctors with 1-5 years of experience. Formal education on environmental sustainability was limited: 55.4% reported no training, 24.6% were unsure and only 20% confirmed training. Although there was widespread awareness, active waste segregation was suboptimal with only 36.9% participating and 63.1% not complying. Marked discrepancies were noted regarding waste management practices. Disposal of volatile anesthetics was not well understood. Major challenges hindering sustainable “Green OT” practices were systemic, particularly insufficient recycling services, inadequate policies and lack of training.

Conclusions: This study identifies a “green gap” in Sri Lankan surgery. Despite positive attitudes, significant gaps exist in education, practice and institutional support for environmental sustainability in operating theatres. Proper training and policy implementation are essential to address this. Interventions should target curriculum reform and provision of facilities for waste segregation.

Psychological profile and personality evaluation of altruistic Buddhist monks versus related live donors at a liver transplant centre in Sri Lanka.

Jayasekera SA¹, Tennakoon K¹, Tillakaratne MSB¹, Herath P¹, Sathsara K¹, Baminiwatta A², Wijesinghe C², Fernando M¹, Siriwardana RC¹

¹*Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya*

²*Department of Psychiatry, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Liver transplantation remains the definitive treatment for end-stage liver disease. In Sri Lanka, altruistic donations from Buddhist monks feature prominently in the paediatric liver transplant programme alongside the related donations. We assessed the psychological well-being, compassion and personality traits among these donor populations.

Methods: The study compared altruistic (monk) and related live liver transplant donors. Psychological well-being was assessed with the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), personality traits with the Big Five Inventory (BFI-44), and compassion with the Santa Clara Brief Compassion Scale (SCBCS) with validated questionnaires. Demographics, mean scores and standard deviations were calculated and compared between groups.

Results: Of 43 donors, 11 (25.6%) were altruistic (monks) and 32 (74.4%) were related. All altruistic donors were male; related donors were 25% male (n=8) and 75% female (n=24). The related donors comprised of 75% mothers and 25% fathers. Ethnicity: Sinhalese 81% (n=26), Muslim 15.3% (n=5), Tamil 3% (n=1). Mean age was 36.82±6.32 years (altruistic) versus 32±5.68 years (related). Mean WEMWBS scores were 59.91±6.3 (altruistic) and 60.91±5.1 (related) (p>0.05). Mean SCBCS scores were 32.4±3.8 (altruistic) versus 32.3±3.3 (related) (p>0.05). Related donors scored higher on extraversion and openness; agreeableness and conscientiousness were comparable; altruistic donors showed lower neuroticism. Mental well-being and compassion were comparable between the two donor groups.

Conclusions: The altruistic monks demonstrated a compassion level and mental well-being comparable to that of the parents who donated for their children. Incorporating a structured psychological assessment would enhance understanding of the psychosocial profile of live liver donors.

Demographic, Clinical and Biochemical Characteristics of Deceased Donors: A Single Unit Experience

Joel Arudchelvam¹, Hansani Hegoda Gedara¹, Rukshan Siriwardana¹, Thushan Gooneratne¹, Rezni Cassim¹.

¹University Vascular and Transplant unit, Department of Surgery, Faculty of Medicine, University of Colombo

Introduction:

The demand for organ transplantation in Sri Lanka is increasing due to rising end-stage kidney and liver disease. Although deceased donors (DD) constitute a major source of organs, identification and procurement remain suboptimal. This study describes the demographic, clinical, and biochemical characteristics of DD from the Colombo region.

Objectives:

To assess the demographic, clinical, and biochemical characteristics of deceased organ donors.

Method:

A descriptive cross-sectional study was conducted using records of all deceased organ donors identified in 2025.

Results:

Among 38 deceased donors, kidney retrieval was performed in 85.3%, liver retrieval in 23.5%. No organs were retrieved in 8.8%. The mean age was 45.0 years (SD=14.32), and 68.4% were males. The commonest blood group was O positive (37.1%). Causes of death included intracranial haemorrhage (40.5%), traumatic brain injury (40.5%), and hypoxic brain injury (8.1%). A history of cardiac arrest was present in 21.6% of donors who underwent retrieval. Among liver donors (n=8), mean AST was 45.36 U/L (SD=28.52), mean ALT 44.41 U/L (SD=29), and mean serum sodium 151.8 mmol/L (SD=7.5). Overall mean AST and ALT were 54.45 U/L (SD=30.25) and 47.7 U/L (SD=41.8), respectively. Among kidney donors, mean serum creatinine was 1.25 mg/dL (SD=0.6).

Conclusion:

Organ retrieval was not performed in 8.8% of identified donors, mainly due to lack of consent and legal issues and other issues, highlighting the need to strengthen consent processes. Despite higher regional reports, only 40.5% of donors had traumatic brain injury, underscoring the need for improved identification and retrieval pathways in such patients.

Management of Venous Injuries of the Lower Limb: A Case Series and Review of Current Evidence

Joel Arudchelvam¹, Hansani Hegoda Gedara¹, Rukshan Siriwardana¹, Thushan Gooneratne¹, Rezni Cassim¹.

¹*University Vascular and Transplant unit, Department of Surgery, Faculty of Medicine, University of Colombo*

Introduction: Lower limb venous injuries account for approximately 20% of severe lower extremity trauma. The optimal management of deep venous injuries in the lower limb remains controversial, with some advocating ligation and others favoring primary repair. This article presents a case series of lower limb deep venous injuries.

Method: Patients who underwent lower limb venous repair between January 2015 and 2025 were included. Data on demographics, injury mechanism, and type of repair were collected.

Results: Out of the 19 patients, 73.7%(n=14) were male, and 26.3%(n=5) were female. The mean age was 36 years (4-61 years). Road traffic accidents, trap gun injuries, and iatrogenic causes each accounted for four cases (21.1% each). One reported case was due to a workplace injury. The vessels involved were popliteal vein (PV) in eight (42.1%), femoral vein (FV) in five (26.3%), external iliac vein in 5% (26.3%) and one case of subclavian vein repair. Direct venous repair was performed in 11 cases (57.9%), autologous saphenous vein panel graft repair in four (21.1%), thrombectomy in two (10.5%) and venous exploration with repair was performed in one case (5.2%).

Conclusion: Venous ligation was the previous standard management for lower limb venous injuries. However, ligation is associated with venous hypertension, leading to limb swelling and potential limb loss. Native grafts are preferred for repair and size matching should be done with graft reconstruction (paneled or spiral).

Mesenteric Ischemia, a Rare Event Due to Heterogeneous Causes: A Case Series

Arudchelvam J¹, Siriwardana R¹, Hagodagedara H¹, Cassim R¹, Gooneratne T¹

¹Vascular and Transplant Unit, Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction: Mesenteric ischemia is an uncommon but catastrophic vascular condition. Published series are limited. This study describes surgically managed mesenteric ischemia at a tertiary vascular center.

Methods: A retrospective descriptive study was performed using a prospectively maintained database of patients undergoing surgery for mesenteric ischemia. Demographics, presentation, operative findings, interventions, and early outcomes were obtained from clinical records.

Results: Nine patients underwent surgery. Mean age was 58.63 ± 15.33 years and four (44.44%) were male. Etiologies were heterogeneous: four cases (44.44%) of superior mesenteric artery (SMA) thrombosis, including two (22.22%) iatrogenic, and single cases (11.11%) of SMA embolism, mesenteric venous thrombosis, and SMA dissection. Procedures varied and included SMA embolectomy, SMA thrombectomy, mesenteric vein thrombectomy, aorto-SMA bypass, three explorations with or without bowel resection, and one mesenteric-portal vein junction patch repair. Early outcomes included three deaths (33.33%) and one case (11.11%) of acute kidney injury.

Conclusion: Surgically treated mesenteric ischemia showed marked etiological and operative variation within a small cohort. Larger multicenter studies are needed to better define disease patterns in the Sri Lankan population.

Quasi-experimental Trial for the Effectiveness of an e-health Intervention Promoting Physical Activity among Office Workers of Divisional Secretariats in Gampaha District

Wickramarachchi WATK¹, Kumarapeli V²

¹Post Graduate Institute of Medicine, University of Colombo.

²Directorate of Policy Analysis and Development, Ministry of Health.

Introduction and Objectives - Physical inactivity is a risk factor for Non-communicable Diseases and leads to obesity. Being a sedentary group, office workers should improve physical activity (PA) through lifestyle modifications. Objective of this study was to assess the effectiveness pertaining to biological parameters of an e-health intervention promoting PA among office workers of Divisional Secretariats in Gampaha District.

Method - “Fitness and Radiance” was a novel behavioural change e-health intervention promoting PA among office workers. It consisted of a PowerPoint presentation, videos of a 30-minute comprehensive exercise session and a three-minute isometric exercise session. A quasi-experimental trial was conducted for six months to assess its effectiveness among 196 office workers measuring biological parameters. Seven Divisional Secretariats were selected from each district while identifying Gampaha District as the intervention group and Kalutara district as the control group. The body weight, resting heart rate and systolic blood pressure were analyzed by univariate, cluster and multivariate Generalized Estimating Equations analysis.

Results - The rate of participation for the post-intervention assessment was 85.71%. Body weight was significantly reduced in intervention group, in univariate ($p < 0.001$, $r = 0.5$) and GEE analysis [$\beta = -2.24$, 95% CI: $(-2.27, -2.21)$, $p < 0.001$]. There were no significant differences in resting heart rate ($p = 0.545$, $r = 0.1$) and systolic blood pressure ($p = 0.715$, $r = 0.04$) between two groups in univariate analysis and cluster analysis.

Conclusions - This intervention is effective to reduce body weight through PA among office workers. It is recommended to introduce this intervention in office settings to prevent obesity.

Determinants of Resectability in Perihilar Cholangiocarcinoma in a Resource-limited Setting: Occult Metastatic Burden and the Role of Staging Laparoscopy

Anjalika T¹, Mahalingam N¹, Fernandopulle N¹, Sivaganesh S¹, Subasinghe D¹

¹ *Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction & Objectives: Late presentation of perihilar cholangiocarcinoma (PHC) limits curative surgery in the majority. This study evaluates determinants of unresectability and the utility of staging laparoscopy in a resource challenged setting.

Methods: A retrospective analysis of a prospectively maintained database was performed for patients diagnosed with PHC between 2019-25. Clinico-demographic characteristics, disease stage, use of staging laparoscopy and management were analysed.

Results: Seventy-one patients (mean age 61.2 years; male 63.4%) were included. The mean symptom to referral time was 5.8 months with jaundice the presentation (60.6%). CT/MRI detected vascular involvement in 70.4%, Bismuth type III/IV tumours in 63.4% and metastases in 66.2%. Staging laparoscopy performed in 25.4% (n=18), detected occult peritoneal disease in an additional 66.7% (n=12), increasing detection of metastatic disease to 83.1%. This represents a 25% relative increase in the metastatic burden identified before any resection. All patients underwent biliary drainage, most commonly via the percutaneous route (57.7% [n=41]). Most patients (87.3% [n=62]) were not resected due to unresectable disease (81.7% [n=58]) or poor fitness (9.9% [n=7]). Curative-intent resection was performed in 8.5% [n=6] with portal vein resection in 50% (n=3) and preoperative portal vein embolization in n=2. Postoperative mortality was 1.4% (n=1), with R0 resections in 67% (n=4).

Conclusions: In this resource-limited setting PHC was characterised by late presentation and advanced disease. With the high burden of occult metastases, staging laparoscopy with its high yield is an adjunct to avoid futile interventions and improve resource allocation. Streamlining pathways may improve resectability and outcomes.

The Histopathological Analysis of 187 Consecutive Thyroidectomy Specimens in a Tertiary Care Hospital: 25 Years Following Salt Iodination.

Narampanawa S¹, Niyas I², Liyanage VDP¹, Udupihille J³, Galketiya KB⁴, Dharmapala A¹

¹*Department of Surgery, Faculty of Medicine, University of Peradeniya, Sri Lanka*

²*National Hospital Kandy, Sri Lanka*

³*Department of Radiology, Faculty of Medicine, University of Peradeniya, Sri Lanka*

⁴*Faculty of Medicine, Nursing and Health Sciences, Monash University, Mildura, Victoria, Australia*

Introduction and Objectives: Abnormal enlargement of the thyroid gland or “goitre” was previously linked to iodine deficiency in Sri Lanka. This study evaluates the histopathological profile in of a cohort of patients who underwent thyroidectomy, to show the current profile 25 years post iodination.

Method: 379 patients presented to the surgical clinic of Teaching Hospital Peradeniya with goitre within the 3-year duration from August 2018 – August 2020. 187 patients underwent surgery. In this retrospective cohort study, the post-surgical histology and demographic details were obtained through patient interviews and records. Chi square, odds ratio and independent sample T tests were used to identify correlations with statistical significance, with a p-value <0.05. Data was analysed using Statistical Package for the Social Sciences (SPSS) version 25.

Results: The study showed 78.1% benign specimens and 21.9% malignant. Patients with malignancies had a younger mean age of 46.05 years, compared to 50.21 in benign. Diffuse enlargement had no malignant outcomes here. The highest malignancy rate of 32.6% was seen in solitary nodules. Multinodular goitres were 80.6% benign. Majority of malignancies were papillary carcinoma (39.0%), followed by papillary microcarcinoma (29.3%), follicular carcinoma (26.8%) and lower being medullary carcinoma (4.9%).

Conclusions: This study shows the current histological profile of patients undergoing thyroidectomy 25 years post iodination, with 78.1% being benign and papillary carcinoma still the commonest malignancy. With an increased incidence and rate of diagnosis worldwide, it's important to identify the patterns observed in Sri Lanka for deciding on appropriate interventions.

Solid Pseudopapillary Neoplasms of the Pancreas: A Case Series from a Sri Lankan HPB Referral Center

Anjalika T¹, Mahalingam N¹, Fernandopulle N¹, Sivaganesh S¹, Subasinghe D¹

¹ Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction & Objectives: Solid pseudopapillary neoplasms (SPNs) are rare, low-malignant-potential pancreatic tumours predominantly affecting young women. Although outcomes after resection are excellent, a subset behaves aggressively, and data from resource-limited settings remain scarce. We report a case series from a Sri Lankan HPB centre describing clinical features, management, and outcomes.

Methods: Eleven consecutive patients with SPNs managed between 2019 and 2025 were analysed—nine histologically confirmed, two with small lesions managed by surveillance. Data collected included demographics, presentation, imaging, diagnosis, operative details, histopathology, and outcomes.

Results: All patients were female, mean age 27.1 years (range 15–46). Abdominal pain was the commonest presentation (7/11), followed by abdominal mass (2/11); two were asymptomatic. Tumours most often involved the pancreatic neck (n=7), body (n=2), and head (n=2), with mean size 66.4 mm (range 15–160 mm). Preoperative diagnosis was achieved in seven patients via EUS-guided biopsy. Seven had localised disease without metastasis or vascular invasion. Procedures included subtotal pancreatectomy (n=3), pancreaticoduodenectomy (n=2), and laparoscopic-assisted extended distal pancreatectomy with splenectomy (n=2). All resected patients achieved R0 resection with no recurrence. Immunohistochemistry showed β -catenin and synaptophysin positivity with chromogranin negativity. Two patients with advanced disease died; the two under surveillance showed no progression.

Conclusions: SPNs demonstrate excellent outcomes after complete resection, even in resource-limited settings. A subset presents with advanced disease, emphasising the need for early diagnosis, while selected small lesions may be safely monitored.

Animal Bite Incidents and Environmental Health Determinants in the Northern Naval Area, Sri Lanka: A Descriptive Study

Samarawickrama DI, Dissage S

Background:

Diseases transmitted through animals represent an important environmental and occupational health concern in military communities. Animal bites not only contribute to morbidity but also reflect underlying environmental health issues such as poor waste management and high stray animal populations within naval establishments.

Objective:

To describe the epidemiological characteristics of animal bite incidents and associated environmental health factors in the Northern Naval Area of Sri Lanka.

Methods:

A retrospective descriptive analysis was conducted using secondary data from medical records of reported animal bite incidents in the Northern Naval Command between January and June 2021. Data on the type of animal, location, treatment received, and environmental conditions were analyzed using descriptive statistics and incidence rates.

Results:

A total of 52 animal bite cases were recorded during the study period. The estimated incidence rates were 700 per 100,000 population for dog bites, 280 per 100,000 for rat bites, and 40 per 100,000 for saw-scaled viper bites. The majority of cases (71%) occurred at Naval Base Kankasanthurai, which hosts 42.2% of the total naval population in the area and is characterized by high population density and suboptimal environmental sanitation, including inadequate organic waste management. Approximately 81% of mammalian bites (dog and rat) received post-exposure anti-rabies vaccination, while all venomous snakebite cases (100%) were treated with anti-venom serum. Snakebite incidents were reported exclusively from low-population density locations (5.9% of the naval population), often associated with occupational exposure and inadequate protective measures.

Conclusion:

Animal and snake bites constitute a notable occupational and environmental health risk among naval personnel in the Northern Naval Area. Strengthening environmental sanitation, improving solid waste management, implementing systematic stray dog vaccination and sterilization programs, and promoting occupational safety measures are recommended to reduce animal-related health risks in naval establishments.

Boosting Movement in Type 2 Diabetes: A Systematic Review and Narrative Synthesis of Physical Activity Interventions in Low- and Middle-Income Countries

Gunawardhana DP¹, Nethmini MWA², Talagala IA³

¹ *Post Graduate Institute of Medicine, University of Colombo*

² *Department of Public Health and Family Medicine, Faculty of Medicine, University of Moratuwa*

³ *Department of Public Health and Family Medicine, Faculty of Medicine, University of Moratuwa*

Introduction: Physical activity is a cornerstone of managing T2DM without medication. Consistent moderate-to-vigorous exercise reduces insulin resistance and diabetes complications. Despite these well-documented benefits, physical inactivity remains prevalent among individuals with T2DM in LMICs, where socio-cultural, economic, and environmental barriers often impede participation in structured exercise or active lifestyles.

Objective: This review aims to provide a comprehensive and current systematic review, including narrative synthesis, of interventions designed to enhance physical activity among patients with T2DM in LMIC.

Methods: PubMed, CENTRAL, ClinicalTrials.gov, Google Scholar, and gray literature were systematically searched for randomized controlled trials aimed at increasing physical activity in T2DM patients published from 2015 to 2025. Data on intervention characteristics, delivery strategies, and physical activity outcomes were extracted. Due to heterogeneity in intervention components and outcome measures, findings were synthesized using narrative synthesis to summarize the types of interventions implemented and their reported effects on physical activity among adults with T2DM.

Results: The included studies used various strategies to increase physical activity in patients, such as group interventions, SMS support, motivational interviewing, action planning, and diabetes education. Most interventions combined behavioural counselling with education to help participants adopt and maintain regular physical activity.

Conclusions: Various interventions to boost physical activity in adults with T2DM in LMICs often include behavioural counselling and education. Although many studies show positive results, inconsistent intervention designs and outcome measures make comparisons difficult. Future research should specify components and processes to identify strategies that support sustained physical activity in this population.

Bridging Law & Care: Legislative Safeguards Ensuring Maternity Benefits for Sri Lankan Women Workers, Alignment with International Labour Organization Standards

Gunawardhana DP¹, Talagala IA², Hettiarachchi CA³

¹ *Post Graduate Institute of Medicine, University of Colombo*

² *Department of Public Health and Family medicine, Faculty of Medicine, University of Moratuwa*

³ *National Institute of Health Sciences, Kalutara*

Introduction : Sri Lanka has established a legal framework to support working mothers by ensuring core protections on statutory leave, nursing intervals, and crèche provisions and many more for both public and private sector mothers. The objective was to analyze Sri Lankan maternity benefit legislations to highlight their strengths and weaknesses, with identified gaps supported by relevant international technical standards.

Methods: The Sri Lankan Maternity Benefits Ordinance, Shop and Office Employee Act and Establishment code of the government of the Democratic Socialist Republic of Sri Lanka were compared with International Labour Organization standards to perform the comparative analysis. Critical evaluation was done compared to latest practice guidelines issued by Ministry of Health.

Results: Female workers are granted 12 weeks of maternity leave, with public officers eligible for an extra 84 days at half pay and no pay, but these durations do not meet the ILO's minimum of 14 weeks. Four weeks of post-confinement leave are provided, compared to the recommended 6 weeks of mandatory leave. The legislation does not clearly specify the status of maternity leave in situations where an infant death occurs after the mandatory maternity leave period. Provisions for alternative maternity benefits remain legally enacted. However, current practice prioritizes planned institutional-based deliveries with comprehensive postnatal care. Legislative safeguards for adoptive, commissioning, and subfertility-treatment mothers, private sector protections remain limited.

Conclusions: Sri Lanka's legislative framework provides several safeguards but falls short of international standards, highlighting the need for legislative reforms to improve benefits, clarity, and inclusivity across sectors.

Developing a Risk Communication Model for Public Health Emergencies in Urban Undersettlements of Colombo

Obeyesekera NH¹, Wijesinghe MSD¹

¹*Health Promotion Bureau, Ministry of Health, Sri Lanka*

Introduction: Public health emergencies (PHEs) are increasing globally, with the Southeast Asian region highly vulnerable. Urban undersettlements face heightened risk. Effective response requires risk communication and community engagement (RCCE). The study aimed to develop a risk communication model for PHEs among dwellers of urban undersettlements in Colombo, based on perceived health-related risks, associated factors, and stakeholder mapping.

Methods: A four-component study was conducted. The ‘Risk Perception Tool (RPT)’ was developed and validated using Confirmatory Factor Analysis and Cronbach’s alpha. A cross-sectional study assessed perceived risk and associated factors using the RPT, with a cutoff of 72 determined by the modified Angoff method. Analyses included chi-square test and logistic regression. Stakeholders were mapped using qualitative methods and summarised in the stakeholder analysis matrix, and relations were visualised via a Net map and Geographic Information System (GIS) map. Finally, a risk communication model was developed and validated using qualitative methods and the modified Delphi technique.

Results: The RPT (21-item, five-factor) demonstrated good reliability (Cronbach’s alpha=0.783). Adequate perceived health-related risk was 91.2% (95% CI 88.99%-93.41%). Significant associations included ethnicity, family size, and language ability. The government health sector was the main contributor to risk communication. A context-specific model with six domains, incorporating socio-ecological and ethical dimensions, was developed.

Conclusions: The study provides a validated tool, stakeholder insights, and a context-specific model. Findings emphasise social and communication factors in shaping risk perception. The model supports coordinated, ethical, and community-engagement responses. Further validation and operationalisation are recommended to strengthen RCCE in vulnerable urban settings. Moreover, it is recommended to invest in frontline capacity and partnerships and address determinants through modern channels

Poor resilient coping and its associated factors among final year engineering students of University of Peradeniya

Aruppola ALGK¹, Gunawardane DA¹

¹*Department of Community Medicine, Faculty of Medicine, University of Peradeniya*

Introduction: University life brings a lot of pressure, and students often face high levels of stress that can affect their mental well-being. Furthermore, poor resilient coping skills among university students are associated with reduced academic performance and adverse physical and mental health outcomes, particularly in demanding disciplines such as engineering. However, evidence remains limited, both globally and in Sri Lanka. Therefore, the aim of the study was to assess the level of resilient coping and its associated factors among final-year engineering students at the University of Peradeniya, Sri Lanka.

Methods: A cross-sectional study was conducted among final-year engineering students. Data were collected using a self-administered questionnaire that incorporated sociodemographic variables and the Brief Resilient Coping Scale. Data were analysed with IBM SPSS Statistics utilizing Chi-Square tests.

Results: Of 430 invited participants, 65.8% responded. Low resilient coping was identified in 39.6% of the participants. Significant associations were observed with extracurricular activity involvement ($p < 0.001$), alcohol consumption ($p = 0.034$), academic subspecialty ($p = 0.021$), and exercise ($p = 0.049$). The highest prevalence of low resilient coping was found among manufacturing and industrial engineering students (50.0%). Students not engaged in extracurricular activities showed a higher prevalence than those who were engaged in such activities (53.4%). No significant associations were identified with ethnicity, residence, smoking, sex, or scholarship status.

Conclusions: A considerable proportion of students demonstrated low resilient coping, particularly within specific academic and behavioural groups. Targeted interventions, including awareness programmes, self-screening, counselling services, and the promotion of healthy behaviours such as exercise and extracurricular engagement, are recommended.

Factors Influencing Knowledge of E-Cigarettes and Associated Attitudes and Practices Among Students in Private Institutions in Colombo District

Sirimalwaththa STM¹, Thilakarathne MLYD¹, Rajeswaran S¹, Priya YPDD¹, Gamage KG MBK¹, Cader M²

¹*Faculty of Medical Sciences, University of Sri Jayawardenepura, Sri Lanka*

²*Consultant Community Physician, National Program for Tuberculosis Control and Chest Diseases, Ministry of Health, Sri Lanka*

Background: E-cigarettes, commonly known as vape pens, though initially introduced as an alternative to traditional tobacco smoking, have now gained popularity, especially among young adults. Even though this is marketed as less harmful than tobacco smoking, their health impact of long-term use is still debatable.

Objective: This study aimed to describe the knowledge, attitudes, practices and factors associated with knowledge on e-cigarettes among students attending selected private higher educational institutions in the Colombo district.

Methods: A descriptive cross-sectional study was conducted among 423 undergraduate students from selected private higher educational institutions in the Colombo district. A stratified interval sampling method was used. Data was collected through a self-administered questionnaire and analyzed using SPSS version 25.

Results: Response rate was 100%. Mean age was 22.8 years (SD = 1.52), Majority were females (n=213, 50.4%), Sinhalese (n=308, 72.8%), from the Western Province (n=246, 58.2%) and heard about e-cigarettes (n=333, 78.7%) through social media (n=253, 59.8%) and friends (n=221, 52.2%). Overall, 53.4% (n=223) had good knowledge, 54.1% (n=229) had negative attitudes towards e-cigarettes and 19.9% (n=84) had ever used e-cigarettes. Majority tried it for taste (n=61, 72.6%). Male gender (p = 0.021), having friends (p < 0.001) or close family members who use e-cigarettes (p=0.042), and ever smoked conventional tobacco cigarettes (p < 0.001) were significantly associated with good knowledge.

Conclusions: Over half demonstrated good knowledge, though gaps regarding health effects, addictiveness, and legal regulations were noted. Male gender and prior exposures were significantly associated with good knowledge.

Practices Regarding Urban Heat Islands and Factors Associated with Practices Among the Residents of Wanathamulla Grama Niladhari Division

Karunaratne AGBM¹, Inara MRF¹, Karunanayaka KPJP¹, Karunaratne PJW¹, Jayawadene DMS²

¹ Faculty of Medicine, University of Colombo, Sri Lanka

² Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction and Objectives: Urban Heat Islands (UHIs) are an emerging public health concern in rapidly urbanizing settings, contributing to heat-related morbidity and reduced quality of life. Although awareness of UHIs is increasing, there is limited understanding of how individuals adopt practical mitigation behaviors. This study aimed to assess practices related to UHI mitigation and identify factors associated with these practices among residents of Wanathamulla GN division, Colombo, Sri Lanka.

Method: Descriptive cross-sectional study with analytical component was conducted among adults aged 18–65 years. Multistage sampling method was used to recruit 126 participants. Data were collected using an interviewer-administered, pre-tested questionnaire assessing socio-demographic characteristics and heat mitigation practices. Practice scores were calculated and categorized, and associations were analyzed using bivariate analysis.

Results: The mean age of the study population was 43.13 years (SD= ±13.46 years) and majority (61.9%) were females. Participants' composite practice scores were dichotomized into "good" (≥22 points, meeting the threshold for all designated high-impact practices) and "bad" (<22 points, failing to meet the high-impact practice threshold). Majority (91.3%) had bad practices with 75.4% never having participated in tree planting programmes and only 5.6% visiting green spaces or shaded areas daily. Educational level was significantly associated with good practices on bivariate analysis ($p=0.033$, $\chi^2=4.821$).

Conclusions: Heat mitigation practices were suboptimal. Interventions should target the community, through awareness, accessible greening programmes, and improved access to shaded spaces, to effectively increase adoption of UHI mitigation behaviors.

Factors Influencing Patient Medication Adherence in Medical Clinics of Type A Divisional Hospitals in the RDHS Area, Kalutara

W.S.G Peiris¹, L.S.D. De Silva²

¹ *Ministry of Health, Sri Lanka*

² *Ministry of Health, Sri Lanka*

Introduction & objective: Medication adherence plays a key role in the effective management of non-communicable diseases (NCDs), especially in settings with limited resources. Although Sri Lanka provides free healthcare services, maintaining consistent adherence to long-term medication remains a challenge. This study was conducted to assess the level of medication adherence and to identify factors associated with adherence among patients attending medical clinics in Type A Divisional Hospitals in the RDHS area of Kalutara.

Methods: A descriptive cross-sectional study with an analytical component was carried out among 427 adult patients with chronic diseases. Data were collected using a pre-tested structured questionnaire, which included the validated 8-item Morisky Medication Adherence Scale (MMAS-8). Descriptive statistics were used to summarize the data, while Chi-square and Fisher's exact tests were applied to assess associations between selected variables and medication adherence.

Results: The findings showed that only 10.3% of participants had good medication adherence (95% CI: 7.4%–13.2%), while the majority (89.7%) had poor adherence. The most commonly reported barriers were forgetfulness (36.1%) and concerns about side effects (16.1%). Socio-demographic, socioeconomic, and clinical characteristics were not significantly associated with adherence. However, patient-related factors such as health literacy, beliefs about medication necessity, perceived illness severity, and concerns about side effects were significantly associated with poor adherence at bivariate analysis ($p < 0.05$).

Conclusion: In conclusion, medication adherence in this setting is low and appears to be largely influenced by patient-related factors. Interventions targeting patient beliefs and health literacy may be critical to improving medication adherence.

A descriptive secondary analysis of drought events and their population impact in Sri Lanka from 2010 to 2022

Waidyatilleke SR¹ Hettiarachchi TH² Dharmaratne SD²

¹ *Department of Medicine, Faculty of Medicine, University of Peradeniya*

² *Department of Community Medicine, Faculty of Medicine, University of Peradeniya*

Introduction: Drought is a recurring climate hazard in Sri Lanka. It affects agriculture, water supply, and livelihoods, mainly in the dry zone. National disaster data on droughts have not been described in a simple summary form for recent years. This study aimed to describe the time trend, spatial pattern, and human impact of drought events recorded in Sri Lanka from 2010 to 2022.

Method: This was a secondary data analysis based on the national disaster database of Sri Lanka. All drought records from 2010 to 2022 were extracted. Data were summarised by year, month, province, and district. Frequencies, totals, and percentages of affected people and families were calculated using standard descriptive methods.

Results: A total of 1,345 drought events were recorded during the study period. About 9.78 million people and 2.94 million families were affected. The Eastern Province had the highest share of events at 20.1%, followed by North-Western at 19.5% and Northern at 7.0%. At district level, Kurunegala reported the most events with 12.3%, followed by Anuradhapura with 7.5% and Jaffna with 7.2%. The year 2017 had the highest count (259 events), followed by 2019 (216) and 2016 (194). January (15.8%) and August (15.6%) were the peak months. No direct deaths, injuries, house damage were recorded for drought.

Conclusions: Drought events in Sri Lanka are concentrated in the dry-zone provinces and have affected a large share of the population over 13 years. The findings support the need for water security and livelihood support programmes in high-burden districts.

A secondary data analysis of flood events and their human and housing impact in Sri Lanka from 2010 to 2025

Waidyatilleke SR¹, Hettiarachchi TH², Dharmaratne SD²

¹ *Department of Medicine, Faculty of Medicine, University of Peradeniya*

² *Department of Community Medicine, Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Floods are the most damaging weather-related hazard in Sri Lanka. They cause deaths, injuries, displacement, and large losses of property each year. A simple national summary of flood records is useful for planning. This study aimed to describe the time trend, spatial pattern, and human and housing impact of flood events recorded in Sri Lanka from 2010 to 2025.

Method: A secondary data analysis was carried out using the national disaster database. All flood records from 2010 to 2025 were extracted. The number of events, deaths, injuries, missing persons, affected people, and damaged houses were summarised by year, month, province, and district. Frequencies, totals, and percentages were calculated.

Results: A total of 3,645 flood events were recorded. They caused 389 deaths, 325 injuries, and 234 missing persons. About 7.36 million people and 1.93 million families were affected. A total of 104,729 houses were impacted, of which 16,713 were destroyed and 88,016 damaged. The Western Province reported the most events with 19.0%, followed by Northern with 18.1%) and North-Western at 17.4%. Kurunegala at 9.6% and Gampaha at 9.1% were the most affected districts. May (27.1%) and November (21.5%) were peak months, reflecting the two monsoons. The year 2010 recorded 884 deaths which is the highest number. Deaths were reported in 5.8% of all flood events.

Conclusions: Floods in Sri Lanka cause a heavy human and housing burden, with clear seasonal and regional patterns. Strengthening early warning, drainage, and housing resilience in the Western and Northern provinces is needed.

A descriptive secondary analysis of landslide events and their human and housing impact in Sri Lanka from 2010 to 2024

Hettiarachchi TH¹, Waidyatilleke SR², Dharmaratne SD¹

¹*Department of Community Medicine, Faculty of Medicine, University of Peradeniya*

²*Department of Medicine, Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Landslides are a major hazard in the hill country of Sri Lanka. They cause deaths, missing persons, and damage to houses. National landslide records need a simple descriptive summary. This study aimed to describe the time trend, location, seasonality, and human and housing impact of landslide events recorded in Sri Lanka from 2010 to 2024.

Method: A secondary data analysis was carried out using the national disaster database. All landslide records from 2010 to 2024 were extracted. Counts of events, deaths, injuries, missing persons, affected people, and damaged houses were summarised by year, month, province, and district. Frequencies, totals, and percentages were calculated.

Results: A total of 380 landslide events were recorded. They caused 233 deaths, 74 injuries and 208 missing persons. About 189454 people and 48466 families were affected. A total of 5069 houses were impacted, of which 16.4% were destroyed and 83.6% damaged. Deaths were reported in 10.5% of all events. The Central Province had the highest share of events 45.3% followed by Sabaragamuwa at 35.3% and Uva at 10.5%. These three provinces alone accounted for 91.1% of all events. Nuwara Eliya at 21.6% and Kandy at 21.3% were the most affected districts. May 23.4% and October 17.1% were the peak months. The year 2010 had the highest count which is 82 events.

Conclusions: Landslides in Sri Lanka are concentrated in the central highlands and have a high case fatality. Hill-slope monitoring, resettlement, early warning should be focused on Nuwara Eliya, Kandy, and Ratnapura districts.

Knowledge on Non-Communicable Disease Prevention and Associated Factors among Estate Adults in a selected District, Sri Lanka: A preliminary Analysis

Wijerathne LRIPK1, Kumarasinghe RDKK1, Pushpapriya U1, Periyasamy N2, Seneviwickrama KLMD3,4, Ranasinghe RDS4, Goonewardena CSE1,4

1 Non-Communicable Diseases Research Centre, University of Sri Jayewardenepura, Sri Lanka.

2Regional Director of Health Services, Kegalle District

3Centre for Cancer Research, University of Sri Jayewardenepura, Sri Lanka.

4Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka.

Introduction and Objectives: Non-communicable diseases (NCDs) are a major public health challenge in Sri Lanka, particularly among underserved estate communities. Improving community knowledge on NCD risk factors and preventive practices is essential to reduce the disease burden. This study aimed to assess knowledge regarding NCD prevention and its associated factors among adults in the Kegalle District.

Method: A descriptive cross-sectional study was conducted among 252 adults residing in selected estate communities in the Kegalle District. Data was collected using a pretested interviewer-administered questionnaire using consecutive sampling. Data was analyzed using IBM SPSS version 25. Chi-Square test was used, and significance was taken at $p < 0.05$.

Results: Among participants, 78.6% ($n=198$) were females. Most participants were aged 40–49 years (49.2%, $n=124$), and the mean age was 43 ($SD=\pm 6.7$). Overall, 84.5% ($n=213$) had heard about NCDs. Air pollution (27.0%, $n=68$) and inadequate sleep (31.3%, $n=79$) were the least recognized risk factors. Most identified lifestyle modification (86.5%, $n=218$) and regular medical checkups (75.4%, $n=190$) as preventive measures. Healthcare providers (74.6%) and media (65.1%) were the main information sources. A majority believed NCDs can be prevented (56.7%, $n=143$), and 82.5% ($n=208$) considered screening important. Knowledge regarding at least one NCD was significantly associated with younger age, female gender, Sinhalese, and higher educational status ($p < 0.05$).

Conclusions: Estate adults demonstrated satisfactory awareness regarding common NCDs and preventive measures; however, knowledge gaps regarding certain risk factors and diseases remain. Strengthening community-based health education programs may improve NCD prevention practices in estate communities.

Antenatal depression and anxiety and its associated factors among pregnant mothers in the Colombo RDHS area

Mohideen S ¹, de Silva .C², Weliangge S ³

¹ Postgraduate Institute of Medicine, University of Colombo

² Postgraduate Institute of Medicine, University of Colombo

³ Faculty of Medicine, University of Colombo

Introduction and Objectives: Antenatal depression and anxiety are major public health concerns associated with adverse maternal and child health outcomes. In low- and middle-income settings, these conditions are often under-recognized due to limited integration of mental health into routine antenatal services. This study aimed to estimate the prevalence of antenatal depression and anxiety and to identify associated psychosocial and medical determinants among pregnant women attending antenatal clinics in the Colombo RDHS area, Sri Lanka.

Method: A descriptive cross-sectional study with an analytical component was conducted among 2,008 pregnant women using a multistage stratified cluster sampling design. Depressive symptoms were assessed using a validated Edinburgh Postnatal Depression Scale, and anxiety symptoms using the Perinatal Anxiety Screening Scale. Prevalence estimates were calculated, and multivariable logistic regression analysis was performed to identify independent predictors.

Results: The prevalence of antenatal depression was 39.1% (CI: 37.5 - 41.6) and antenatal anxiety was 27.4% (CI:25.4-29.1), with higher anxiety observed in the third trimester. Antenatal depression was independently associated with ≥ 4 stressful life events (AOR 2.3; 95% CI: 1.8–3.1), poor partner relationship (AOR 2.5; 95% CI: 1.9–3.4) and lack of family support (AOR 2.1; 95% CI: 1.6–2.8). Antenatal anxiety was independently associated with intimate partner violence (AOR 2.7; 95% CI: 2.0–3.6), chronic illness (AOR 1.8; 95% CI: 1.3–2.5) and financial strain (AOR 1.9; 95% CI:1.4–2.6).

Conclusions: Antenatal mental health disorders were highly prevalent in Colombo District.

Caffeine usage and its association with the sleep quality among Advanced level students attending private tuition classes in Colombo district.

Dilhan WAS¹, Arachchige HHC¹, Chezom P¹, Kruthikaran N¹, Atapattu AHAKS²

¹*Faculty of Medicine, University of Colombo, Sri Lanka*

²*Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction: Caffeine is widely consumed by adolescents to improve alertness and concentration, particularly during academic stress. However, excessive or late caffeine intake may negatively affect sleep quality. This study assessed caffeine usage and its association with sleep quality among Advanced Level students attending private tuition classes in the Colombo District.

Methods: A descriptive cross-sectional study with an analytical component was conducted among 400 A/L students selected through stratified random sampling from Science, Commerce, Arts, and Technology streams attending private tuition classes in Colombo District. Data from 387 completed questionnaires (response rate: 96.75%) were analyzed. A self-administered questionnaire assessed socio-demographic characteristics, caffeine consumption, and sleep quality using the Pittsburgh Sleep Quality Index (PSQI). Data were analyzed using descriptive statistics and Chi-square tests.

Results: The prevalence of caffeine consumption was 87.3%. Coffee (65.1%) and tea (58.9%) were the most commonly consumed beverages. High caffeine consumption (≥ 400 mg/day) was reported by 21.3% of students, while 42.5% consumed caffeine within four hours before bedtime. Gender was significantly associated with caffeine consumption ($p=0.002$). The mean PSQI score was 6.59 (SD=3.43), and 63.3% were poor sleepers. Although total caffeine intake was not significantly associated with sleep quality ($p=0.338$), caffeine consumption within four hours before bedtime was significantly associated with poor sleep quality ($p<0.001$).

Conclusions: Caffeine consumption and poor sleep quality were highly prevalent among A/L students. Late-evening caffeine intake was significantly associated with poor sleep quality. Educational interventions promoting safe caffeine use and sleep hygiene are recommended.

Social Influences on Postnatal Health-Related Decision-Making among Mothers in Colombo District: A Qualitative Study

Nanayakkara IOKK¹, Nanayakkara ME², Mahanama LPKSM³, Liyanage S.N⁴, Mahesh PKB⁴, Rathnayake RMDD⁵, Panchali EDM⁵, Weerasinghe DSK⁶

¹*Health Promotion Bureau, Ministry of Health, Sri Lanka*

²*Colombo North Teaching Hospital, Ragama, Sri Lanka*

³*University of Colombo, Sri Lanka*

⁴*Ministry of Health, Sri Lanka*

⁵*Regional Director of Health Services Office, Colombo, Sri Lanka*

⁶*College of Community Physicians of Sri Lanka*

Introduction: The early postnatal period is influenced by social relationships that may shape mothers' health-related decisions. This qualitative study aimed to describe societal influences on health-related decision-making among mothers two months post-delivery in a selected Medical Officer of Health area of Colombo District.

Method: A qualitative study was conducted using Focus Group Discussions (FGDs) among postnatal mothers who had delivered a live baby two months prior to data collection. Mothers were purposively selected from well-baby clinic settings of a Medical Officer of Area with semi-urban characteristics. A semi-structured questionnaire was used. Discussions explored the influence of partners, in-laws, relatives, neighbours, colleagues, health workers, and information sources on maternal decision-making. Data collection continued until the data saturation point was reached. Audio recordings were transcribed and analysed thematically. Ethical approval was obtained from the Postgraduate Institute of Medicine, Colombo.

Results: Altogether 30 participated in the FGDs. Seven themes were elicited: 1.Supportive spousal involvement in maternal decision-making, 2.Traditional family influence on newborn care practices, 3.Family-driven pressure around breastfeeding and infant crying, 4.Protective restrictions imposed by significant relatives during early infancy, 5. Reliance on public health staff for clarification of health-related doubts, 6. Informal peer sharing with limited influence on decisions and 7. Use of digital information and previous experience to support decision-making

Conclusions: Postnatal decision-making was shaped by supportive partners, directive family influence, trusted professional guidance, informal peer sharing, and digital or experiential information sources. Strengthening family-centred postnatal counselling may potentially help align household advice with recommended newborn care practices.

Skin Whitening Product Use Among Female Undergraduates at a Selected University in Sri Lanka: Knowledge, Practices, Side Effects, and Associated Factors

De Silva DGDM¹, Bhanuka KAR¹, Hashara HAN¹, Nanthakumar M¹, Wijesundara WMSU¹, Cader M²

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

²*National Programme for Tuberculosis Control and Chest Diseases, Ministry of Health, Sri Lanka*

Background: A rising number of side effects related to skin whitening products have been reported by medical professionals. Despite regulations in Sri Lanka, unauthorized products containing toxic ingredients like mercury and hydroquinone remain available, driven by media promotion, low self-esteem, and sociocultural attitudes.

Objectives: To describe the knowledge, usage, and side effects of skin whitening products and identify associated factors among female undergraduates at the University of Sri Jayewardenepura.

Methods: A descriptive cross-sectional study was conducted among 422 female undergraduates using stratified sampling and a self-administered questionnaire. Knowledge of ingredients and side effects was scored out of 4, with 3–4 classified as good and 2 or below as poor. Associations were assessed using the Chi-square test, with Fisher Exact test applied where needed, via SPSS version 25.

Results: Response rate was 100%. Overall, 43.1% (182/422) had used skin whitening products, and 40.7% (74/182) of users reported side effects. Poor detailed knowledge of ingredients and side effects was seen in 87.4% and 65.8% respectively, despite 92.2% general awareness of risks. Use was significantly associated with sociodemographic factors (Age, Study Year, Income, Skin tone), knowledge-related factors (Ingredient Knowledge, $p=0.009$; Side-effect General Awareness, $p=0.023$), and perception-related factors (Dissatisfaction with Skin Tone and favorable Perceptions of Lighter Skin; all $p<0.05$).

Conclusions: Skin whitening product use is considerable among university students and is linked to poor knowledge, dissatisfaction with natural skin tone, and favorable perceptions of lighter skin. Regulatory measures, educational campaigns, and initiatives promoting diverse skin tones are needed to reduce demand.

Anthropometric measurements and Body composition indices among rural adults in Kegalle and Ratnapura districts of Sri Lanka

Rajakaruna VPC¹, Wijesinghe CJ¹, Kaluarchchi M², Chambers J², Kasturiratne A³

¹*Department of Community Medicine, Faculty of Medicine, University of Ruhuna*

²*Faculty of Medicine, London Imperial Collage*

³*Department of Public Health, Faculty of Medicine, University of Kelaniya*

Introduction and objectives: Anthropometric measurements and body composition indices are essential for nutritional and dietary risk assessment. We aimed to describe nutritional and body composition indices in a rural adult population.

Methods: In this descriptive cross-sectional anthropometric measurements were obtained using standard procedures and calibrated tools. The body composition was measured using bio impedance. Chi square test was applied to determine their associations with age and gender.

Results: Of 4776 rural adults [Mean age=52 (SD=14.4) years; 68.4% females], underweight was commoner among males compared to females (11.9% vs 8.0%), while overweight (31.9% vs. 23.1%) and obesity (9.7% vs. 3.8%) were commoner among females compared to males. Based on waist circumference (WC), 36.9% of females and 12.4% of males were classified as high risk. High WHR was commoner among females. More males had a higher muscle mass, while more females had excess body fat. Normal visceral fat levels were observed in 84% of females and 74.5% of males. Adults <40 years of age had a higher prevalence of normal muscle mass compared to older adults. Visceral fat levels increased with increasing age, while total body fat declined after 60 years. BMI, WC, WHR and body composition parameters were significantly associated with age and gender.

Conclusions: Females had higher levels of overweight, obesity and total body fat with lower muscle mass, while males had higher muscle mass and visceral fat levels. Increasing age was associated with decreased muscle mass and total body fat and increased visceral fat levels.

The Smallest Mourners: Characteristics and Proportion of Children Experiencing Parental bereavement in infancy in Gampaha District, Sri Lanka

Poojani Illangasinghe¹, Palitha Karunapema¹, Pradeep Wijesinghe³

¹*Epidemiology Unit, Ministry of Health, Colombo*

²*Lady Ridgway Hospital for Children, Colombo*

Background: Bereaved children who experienced the death of a parent or both in infancy face a set of challenges while they grow. Different characteristics lead to significant risks for their physical and psychosocial development, education, and economic stability. This study aimed to estimate the proportion and describe the socio-demographic profile of the children in Gampaha District who experienced parental bereavement in infancy

Methods: A descriptive cross-sectional study was conducted among 1049 parentally bereaved families with children using a single-stage area survey in 2024, and children under 18 years who experienced parental bereavement at infancy were included. The characteristics were described by using frequency, percentage, mean, and standard deviation. Proportion was estimated with 95% confidence interval. Ethical clearance obtained from ERC-Kelaniya

Results: In infancy was 269 experienced parental bereavement. The proportion was 65per100000 children population (95% CI 57-72). The majority had experienced paternal loss (n=199, 74%), while three of them were now experiencing both parental death (1.1%). Their current mean age was 6.6 years (SD=4.2), and 50.9 % were still under 5. Gender distribution was balanced. Majority were Sinhala (n=230,85.5%) and Buddhist (195,72.5%). One fifth (n=51,19%) were cared by relatives or neighbours, and 23.8%(n=64) experienced the remarriage of living parent. Majority (n=264,98.5%) belonged to very low, low, or lower-middle income households. Educationally, 48.7% were currently schooling;4 were school dropouts (1.5%). Most lived in their own homes (n=227,84.4%), as nuclear families (n=156,58%). Only 121 (44.9%) were receiving extended family support.

Conclusion: The findings highlight the critical contexts of poverty, school dropout in children who experienced parental bereavement in infancy. Targeted psychosocial, educational, and economic interventions needed.

Prevalence and demographic determinants of obesity and central obesity among Sri Lankan adults: a nationwide cross-sectional study

Galhena TD¹, Wickramasinghe NA¹, Jayawardena R¹, Devanarayana NM²

¹ *Faculty of Medicine, University of Colombo*

² *Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Obesity is an increasing public health concern in Sri Lanka and a major contributor to non-communicable diseases. However, nationwide data on obesity prevalence and demographic determinants remain limited. This study aimed to determine the prevalence of overweight, obesity, and central obesity among Sri Lankan adults and assess associated factors.

Method: A nationwide cross-sectional secondary data analysis was conducted on 1,200 adults aged 18–70 years from all 25 districts and nine provinces of Sri Lanka. Anthropometric measurements followed standardized protocols. Overweight and obesity were classified using Asian BMI criteria, and central obesity using Asian waist circumference cutoffs. Statistical analysis was performed using SPSS version 27. Associations between demographic variables and obesity were assessed using the Chi-square test.

Results: Nearly two-thirds (63.2%) of participants were overweight or obese according to Asian BMI criteria, while 64.0% had central obesity. Obesity class I, II, and III accounted for 30.7%, 10.4%, and 1.8% respectively. A significant association was observed between age category and obesity status ($\chi^2=50.635$, $p<0.001$), with the highest prevalence among middle-aged adults. Monthly income was also significantly associated with obesity ($\chi^2=24.063$, $p<0.001$), with overweight/obesity prevalence increasing progressively across income categories. Central obesity was significantly more prevalent among females compared to males (79.1% vs 46.3%, $p<0.001$).

Conclusions: This nationwide study shows a substantial burden of generalized and central obesity among Sri Lankan adults, especially middle-aged individuals and females. Findings highlight an ongoing nutritional and epidemiological transition and the need for targeted public health interventions to reduce future non-communicable disease risk.

Turning the Tide: Strengthening One Health Systems to Eliminate Rabies in Sri Lanka

Liyanapathirana A¹, Gunatilake AWPI¹, Ruwanpathirana T¹, Dabrera T¹, Chandrasena H¹, Karunapema P¹, Tissera H¹

¹*Epidemiology Unit, Ministry of Health*

Introduction and Objectives: Human rabies, predominantly dog-mediated, remains a fatal zoonotic disease in Sri Lanka. Although annual human rabies deaths declined from over 300 in the 1970s to 20 in 2024, progress has plateaued with persistently high dog rabies positivity rates. A Joint External Review (JER) was conducted using a One Health framework to evaluate the national rabies control programme, identify system gaps, and guide strategies toward achieving zero human rabies deaths by 2030.

Method: A mixed-methods approach was employed, including national stakeholder consultations, field visits to selected districts, and technical assessments of surveillance systems, laboratory capacity, vaccine delivery, dog vaccination, and dog population management using WHO joint risk assessment framework. Multisectoral teams comprising national and international experts from the WHO and World Organisation for Animal Health triangulated findings across sectors. Localities purposively selected based on human rabies burden, dog rabies trends, PEP utilization, geographic representation, and programmatic relevance.

Results: Human rabies cases fluctuated during 2020–2024, with 31, 25, 32, 17, and 20 cases respectively. Declined further to 14 cases in 2025. Dog vaccination coverages, surveillance sensitivity, and PEP access indicators supported identified strengths and gaps. Strengths included strong political commitment, universal access to free post-exposure prophylaxis (PEP), and a robust cold chain system. However, important gaps, including weak intersectoral coordination, fragmented surveillance systems, low vaccination coverage, limited data integration, underutilized veterinary public health capacity, and absence of an unified national strategy persisted. Resource allocation not aligned with evidence-based priorities.

Conclusions: Sri Lanka has established strong foundations for rabies elimination through political commitment, free PEP access, and existing programme infrastructure. However, persistent transmission highlights critical system-level challenges. A coordinated multisectoral approach is required to strengthen One Health governance, establish integrated surveillance systems, achieve sustainable dog vaccination and population management, optimize PEP service delivery, and enhance community engagement to accelerate progress towards rabies elimination.

Hearing Loss In Sri Lanka : A Systematic Analysis Of National Prevalence and Burden From The Global Burden Of Disease Study 2023

Dharmaratne, NS¹, Godakumbura, U¹, Weerasinghe, P¹, Wickramathilake, SS¹, Wijeratne, U¹, Dharmaratne, SD², Alvis, I^{2,3}, Manathunga, S⁴

¹ Faculty of Medicine, University of Peradeniya

² Department of Community Medicine, Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka

³ Australian Centre for Health Services Innovation (AusHSI) and Centre for Healthcare Transformation, School of Public Health and Social Work, Queensland University of Technology (QUT), Brisbane, Queensland, Australia

⁴ Division of Experimental Medicine, Department of Medicine, Faculty of Medicine, McGill University, Canada.

Introduction: Hearing loss is one of the leading causes of disability worldwide, with profound negative effects on language, education, cognition, mental health and quality of life. This study aims to evaluate the national burden and trends in hearing loss in Sri Lanka from 1990–2023 based on the Global Burden of Disease 2023 study.

Methods: A secondary analysis on data extracted from the Global Burden of Disease (GBD) 2023 database was conducted to report on prevalence and years lived with disability (YLDs) of hearing loss from 1990 to 2023 in Sri Lanka. Further, data was stratified and compared according to sex and age groups.

Results: The prevalence of hearing loss has been steadily rising from 1990 to 2023 with 26,645.14 prevalent cases per 100,000 in 2023 (95% UI : 25,483.86 — 27,848.89) accounting for more than 26% of the total population. Women are more affected, making up 52.24 % of prevalent cases in 2023. Elderly (60-64, 65-69) are more burdened. Mild hearing loss is seen at a higher prevalence in 15-19 and 20-24-year-olds compared to other types of hearing loss in the same age groups.

Conclusion: The burden of hearing loss in Sri Lanka has increased in the past few decades, affecting at least one in four people in 2023. It is more prevalent in the elderly and trends have changed where women are more affected. This needs to be brought to the attention of policymakers to carry out necessary plans of action to address this circumstance.

Association between hypertension and impaired lung function among Sri Lankan adults: a cross-sectional study

Lekamge MLD¹, Mridha MK², Chambers J^{3,4}, Kasturiratne A¹

¹*Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

²*Centre for Non-communicable Diseases and Nutrition, BRAC James P Grant School of Public Health, BRAC University, Bangladesh.*

³*Department of Epidemiology and Biostatistics, School of Public Health, Imperial College London, United Kingdom.*

⁴*Population and Global Health, Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore.*

Introduction and Objectives: The evidence on the association between impaired lung function and hypertension is limited globally. We assessed the association between impaired lung function and hypertension among Sri Lankan adults, including variation by age and impairment patterns.

Methods: This cross-sectional study included 25,148 adults from the South Asia Biobank (2018-2022), sampled proportionate to the population size from all districts of Sri Lanka. Hypertension was defined as systolic blood pressure ≥ 140 mmHg and/ or diastolic blood pressure ≥ 90 mmHg or physician diagnosis or antihypertensive medication use. Lung function was assessed by spirometry and classified using standardized reference equations into normal, obstructive, restrictive, and mixed patterns. Odds ratios (ORs) and 95% confidence intervals (CIs), adjusted for demographic, socioeconomic, lifestyle, environment, and clinical factors were estimated using multivariable logistic regression models.

Results: Among participants (mean age 47.8 ± 12.3 years), 32.2% had hypertension and 14.6% had impaired lung function. No association was observed in crude analysis (OR = 0.94; 95% CI: 0.88-1.02). However, in the fully adjusted model, impaired lung function was significantly associated with higher odds of hypertension (OR=1.11; 95% CI:1.01-1.22). Restrictive impairment showed a significant association (OR=1.21; 95% CI:1.07-1.37), whereas obstructive and mixed patterns did not. The association varied by age (p for interaction = 0.01) and was evident among adults aged 40-59 years (OR=1.15; 95% CI: 1.02-1.30).

Conclusions: Impaired lung function was associated with hypertension among Sri Lankan adults, particularly for restrictive patterns reflecting shared metabolic and inflammatory pathways. These findings highlight the importance of integrated cardiopulmonary risk assessment.

Development and evaluation of a molecular assay for the detection of *MYBPC3* and *MYH7* pathogenic variants in Sri Lankan patients with Hypertrophic Obstructive Cardiomyopathy (HOCM)

Kesharika K H.S¹, Hettiarachchi D¹, Wettasinghe T K¹, Dissanayake V H W¹

¹*Department of Anatomy, Genetics and Biomedical Informatics, Faculty of Medicine, University of Colombo.*

Introduction and Objectives: Hypertrophic Obstructive Cardiomyopathy (HOCM) is a monogenic, autosomal dominant disorder linked to sudden cardiac death. Early molecular diagnosis is vital, yet high costs limit accessibility. This study aimed to develop and evaluate a cost-effective Tetra-primer Amplification Refractory Mutation System (T-ARMS) PCR assay to detect two pathogenic variants significant in South Asians, *MYBPC3* (rs1052373) and *MYH7* (rs575013686).

Methods: T-ARMS PCR assays were optimized for *MYBPC3* (rs1052373, C>T) and *MYH7* (rs575013686, G>C). The assays were validated using a Sri Lankan HOCM cohort (n=12), healthy controls (n=12), and patients with other inherited cardiovascular disorders (n=12).

Results: For the rs1052373 variant, 41.7% (n=5) of the HOCM cohort carried the mutant type, comprising 16.7% (n=2) homozygous (TT) and 25.0% (n=3) heterozygous (CT) genotypes. Remaining HOCM patients and 100% of both control groups exhibited the wild-type genotype. Although the rs575013686 variant was not detected in the HOCM cohort, the T-ARMS PCR protocol was successfully developed and validated through primer optimization.

Conclusion: This study establishes T-ARMS PCR as a viable, low-cost diagnostic tool for screening HOCM-associated variants. The high prevalence of the *MYBPC3*, rs1052373 variant in the HOCM cohort, and its absence in control groups, underscores its potential for targeted genetic screening protocols in Sri Lanka.

Integrated Multidisciplinary Management of Pregnancy-Associated Breast Cancer with Concomitant Cardiac and Renal Involvement: Lessons from a Challenging Case

Marious WDS¹, Ranaweera AKP¹, Rishard MRM¹, Vidanapathirana MN², Gunasekara HRLD³, Latiff SZ¹, Bandara KMNA¹, Rathnasekara WADAK¹, Perera MANAP¹, Bandara AGGJ¹, Senevirathne JTN¹

¹*Professorial Obstetric Unit, De Soysa Hospital for Women, Colombo 08, Sri Lanka*

²*Department of Nephrology, National Hospital of Sri Lanka, Colombo 10, Sri Lanka*

³*National Cancer Institute, Maharagama, Sri Lanka*

Introduction and objectives: Breast cancer (BC) is the most common malignancy among females worldwide. Pregnancy-associated breast cancer (PABC) is defined as BC diagnosed during pregnancy or within one year postpartum, affecting one in 3,000 pregnancies. The incidence of PABC is expected to increase due to delayed childbearing. Due to the heterogeneity of clinical presentation and complications, management decisions based on clinical trial evidence are limited. We present key management strategies of PABC derived from this challenging case.

Case report: A 29-year-old primigravida presented with a rapidly progressive left breast mass at 6 weeks of gestation. Triple assessment confirmed triple-negative invasive ductal carcinoma with axillary nodal involvement. She opted to continue the pregnancy after counselling and underwent mastectomy and axillary clearance at 11 weeks, followed by chemotherapy from the 2nd trimester. At 30 weeks, she developed nephrotic-range proteinuria, and paraneoplastic membranous nephropathy or doxorubicin-induced proteinuria was suspected. Renal biopsy was deferred. She later developed progressive shortness of breath and was diagnosed with dilated cardiomyopathy with reduced ejection fraction. Due to maternal end-organ compromise, fetal growth restriction and need for cancer care resumption, an elective caesarean section was performed at 34 weeks, delivering a live infant. Individualised care was continued.

Conclusions: Physical breast examination is important during the pre-conceptional period and first antenatal clinic visit. All treatment options should be discussed, including the implications of terminating or continuing pregnancy. Radiotherapy is contraindicated. Mastectomy remains possible throughout pregnancy. Chemotherapy can be administered in the 2nd or 3rd trimester. Individual complications should be managed through multidisciplinary care.

Detection of Selected Disease-Associated Variants in the *SHANK3* Gene in a Cohort of Sri Lankan Children with Autism Spectrum Disorder

Perera DNN¹, De Silva S¹, Hewage AS¹, Fous SL², Abeysuriya V¹

¹*Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo*

²*Sirimavo Bandaranayake Specialized Children's Hospital, Kandy*

Introduction and Objectives: Autism spectrum disorder (ASD) is a genetically heterogeneous neurodevelopmental disorder, yet its molecular basis remains poorly characterized in Sri Lanka. *SHANK3* is a high-confidence autism-risk gene involved in synaptic organization and neuronal signaling. This pilot case-control study investigated two selected *SHANK3* variants, rs9616915 and rs762292772, in Sri Lankan children with ASD.

Methods: Twenty children with clinically diagnosed ASD (4–14 years) and five controls (8–14 years) were recruited. Genomic DNA extracted from peripheral blood was amplified using exon-specific primers and analyzed by Sanger sequencing. Detected variants were subjected to statistical analysis and *in-silico* evaluation using Mutation Surveyor, SIFT, PolyPhen-2, and MutationTaster.

Results: Maternal and paternal ages at childbirth were significantly higher among ASD cases than controls, whereas birth weight did not differ significantly. The rs9616915 (c.959T>C) variant was identified in 12/20 ASD cases, with three CC and nine TC genotypes, while all controls were heterozygous (TC). However, genotype distribution did not differ significantly between groups ($p=0.0864$). The pathogenic frameshift variant rs762292772 was absent in both cases and controls. Additional variants included c.3903G>T (rs772120494), c.3830C>G (rs940248882), and a novel missense variant, c.3815G>C. *In-silico* analysis predicted that the latter two variants may potentially damage the *SHANK3* protein.

Conclusion: No statistically significant association was observed between ASD and the selected *SHANK3* variants in this pilot cohort. However, detection of rare variants, including a novel potentially deleterious missense variant, supports the need for larger, adequately powered studies to clarify the contribution of *SHANK3* to ASD in Sri Lankan pediatric populations.

Prevalence of *GCKR* rs1260326 and *GCKR* rs780094 variants in subjects with non-alcoholic steatohepatitis (NASH)-related hepatocellular carcinoma (HCC) in Sri Lanka

Botheju IE¹, Hewage AS¹, Silva SD¹, Siriwardana RC², Tennekoon KH¹, Niriella MA³, Abeysuriya V¹, Samarasinghe SASM¹

¹ *Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo*

² *Department of Surgery, Faculty of Medicine, University of Kelaniya*

³ *Department of Medicine, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Hepatocellular carcinoma (HCC) is the most common primary liver cancer worldwide. Early detection of HCC can influence patients' outcomes, leading to more favorable prognoses. The *GCKR* variants rs1260326 and rs780094, which have minor allele frequencies of approximately 40–50% in South Asian populations, influence hepatic glucose metabolism and may contribute to the development of HCC. However, data on these polymorphisms in Sri Lanka are limited, and this is the first study to assess their association with NASH-related HCC.

Method: Conventional PCR was utilized to amplify the *GCKR* rs1260326 and rs780094 regions in 40 individuals: NASH-related HCC cohort (n=10) and age-, BMI-, and gender-matched control groups—NASH-related cirrhosis (n=10), fatty liver (n=10), and healthy individuals (n=10). The amplified products were subjected to Sanger sequencing for mutation detection. Statistical analysis was performed to evaluate the associations between SNPs and liver disease risk.

Results: The rs1260326 variant showed a strong positive association with liver disease ($\beta = 3.154$, OR = 23.44, $p = 0.020$), indicating increased susceptibility. The rs780094 shows a significant inverse association ($\beta = -1.147$, OR = 0.318, $p = 0.040$), showing a protective effect. A novel exonic frameshift variant, NM_001486.4: c.1329_1330insT (p. Thr444TyrfsTer24), was identified in the HCC cohort, potentially contributing to liver disease progression.

Conclusions: The findings show a strong association of *GCKR* rs1260326 and rs780094 with NASH-related HCC. The identification of a novel high-impact mutation further suggests genetic heterogeneity among Sri Lankan patients with the disease, highlighting the need for larger studies in the future.

The Prevalence and Patterns of Pathogenic Variants of *LDLR*, *APOB*, *PCSK9* Genes in Patients with Probable Familial Hypercholesterolemia

Perera BTK¹, Amiyangoda G², Karunaratne SI¹

¹*Department of Molecular Biology and Biotechnology, Faculty of Science, University of Peradeniya, Sri Lanka*

²*Department of Pharmacology, Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and Objectives: Familial Hypercholesterolemia (FH) is an autosomal dominant genetic disease, which affects 1 in 250 people worldwide. Pathogenic variants in genes responsible for low density lipoprotein (LDL-C) clearance, leads to elevation of cholesterol, results early cardiovascular diseases (CVD) and death. Despite being a common disease worldwide, limited data available on genetic testing of three genes involved, *LDLR*, *APOB*, *PCSK9* in Sri Lankan patients.

Method: 20 patients meeting Simon-Broome criteria attending Cardiology clinic and Lipid clinic at University of Peradeniya and 5 healthy controls with normal lipid profile were enrolled. DNA extraction, PCR amplification, and sequencing analysis were performed for exon 4,8, and 18 in *LDLR* gene, exon 26 in *APOB* gene and exon 7 in *PCSK9* gene.

Results: Out of 20 patients (18-54 years old), 80% showed hypercholesterolemia in first-degree relatives. Individuals with 18-34 age range showed elevated LDL-C between 115-282 mg/dL, 72% of them had normal BMI (range 18.5 – 24.9 kg/m²) and none had cutaneous manifestations of hypercholesterolemia. No size variations detected in PCR products, indicating absence of large insertions or deletions. Out of three sequenced results for *LDLR* gene, one patient carried a deletion (NM_000527.5:c.666delA) and an insertion (NM_000527.5:c.769_770insT). Population specific polymorphism detected in three sequenced patients and controls in Exon 7 of *PCSK9*. No mutations were found for sequenced *APOB* gene.

Conclusions: *LDLR* pathogenic variants appear as the commonest in Sri Lankan FH patients among responsible genes. However, targeted sequencing may miss dispersed variants, highlighting the need for broader genetic screening in Sri Lankan population.

Impact of Nutritional and Anthropometric Factors on Testosterone Levels and Semen Quality in Male Infertility: A Single-Center Study from Sri Lanka

Kumari TWAEN¹, Umayal B¹, Jayasundara DMCS¹

¹*Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo*

Introduction and Objectives: Male infertility is a multifactorial condition influenced by lifestyle, nutritional status, body composition, and hormonal balance. Micronutrients such as vitamin D, folate, and vitamin B12, along with body mass index (BMI), may play important roles in regulating testosterone levels and semen quality. This study aimed to evaluate the impact of these factors on serum testosterone levels and semen parameters in men undergoing infertility assessment.

Methods: A cross-sectional study was conducted among 160 men presenting for infertility evaluation at a fertility clinic in Colombo. Anthropometric data (BMI) and lifestyle factors (smoking and alcohol consumption) were recorded. Biochemical and hormonal parameters, including vitamin B12, vitamin D, folate, and testosterone, were measured using an immunoassay analyzer. Semen parameters (sperm concentration, motility, and morphology) were assessed according to World Health Organization (WHO) guidelines. Pearson correlation and multivariate linear regression analyses were performed to determine associations and identify independent predictors of testosterone levels.

Results: Vitamin B12 showed a significant positive correlation with testosterone levels ($r = 0.284$, $p = 0.005$). In multivariate analysis, vitamin B12 remained an independent predictor of testosterone ($\beta = 0.0009$, $p = 0.009$), while BMI demonstrated a significant negative association ($\beta = -0.055$, $p = 0.030$). The overall regression model was statistically significant ($R^2 = 0.206$, $p < 0.001$). Sperm progressive motility exhibited a borderline positive association with testosterone levels ($p = 0.093$). No significant associations were observed between smoking or alcohol consumption and testosterone levels or semen parameters.

Conclusions: Vitamin B12 levels and BMI are significant determinants of serum testosterone in men and may consequently influence semen quality. These findings underscore the potential role of nutritional status and body composition in the evaluation and management of male infertility.

An Invisible Toll: Adverse Maternal and Fetal Outcomes in Pregnant Women with Hyperglycaemia in a Low-Middle-Income Country

Matthias AT¹, Marious WDS², Ranaweera AKP³, Prathapan R², Abeysinghe H², Jayawardane MA¹, Herath RP⁴, Fernandopulle RC¹, Fernando A¹, Silva D¹, Chamara SR², Prathapan S¹

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka*

²*Ministry of Health, Colombo, Sri Lanka*

³*Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

⁴*Faculty of Medicine, University of Kelaniya, Kelaniya, Sri Lanka*

Introduction and objectives: Burden of non-communicable diseases among women in reproductive age is increasing. Hyperglycaemia in pregnancy (HIP) is a significant cause of feto-maternal morbidity. This study focuses on the prevalence of HIP and its consequences in Sri Lanka.

Methods: A retrospective cohort study was conducted across three tertiary care hospitals, analysing data from 1,350 pregnant women over three months. Data were collected from discharged bed head tickets of postnatal obstetric wards. Standard diagnostic criteria were used to diagnose gestational diabetes mellitus (GDM) and type 2 diabetes mellitus (T2DM). Quantitative data were analysed using chi-square test and analysis of variance (ANOVA), with a significance level set at 5%.

Results: Among the participants, GDM and T2DM were observed in 201 (14.9% [95% CI = 13.0 – 16.9]) and 40 (3.0 % [95% CI = 2.1 – 4.0]) pregnancies, respectively. Instrumental delivery (forceps/vacuum) was significantly higher among hyperglycaemic women, particularly in those with T2DM (7.5%, N=3) and GDM (4.5%, N=9), compared to non-hyperglycaemic women (1.5%, N=17) (p=0.003). Difference of caesarean delivery rate between two groups was not statistically significant. Overall, the occurrence of any adverse neonatal outcome was significantly higher in hyperglycaemic pregnancies, affecting 44.3% (N=89) of GDM and 65.0% (N=26) of T2DM compared to 26.2% (N=291) in non-hyperglycaemic women (p=0.001). Higher incidence of low birth weight, neonatal sepsis, hyperbilirubinaemia, hypoglycaemia and necessity of respiratory support were observed among infants of diabetic mothers (p=0.001).

Conclusions: HIP is a growing public health concern in Sri Lanka. Early screening, optimum glycaemic control, multidisciplinary care and timely obstetric decision making are crucial to mitigate risks.

Prevalence, Feto-Maternal Outcomes and Recurrence of Hypertensive Disorders of Pregnancy in Sri Lanka: A Multicenter Study

Matthias AT¹, Marious WDS², Ranaweera AKP³, Prathapan R², Abeysinghe H², Jayawardane MA¹, Herath RP⁴, Fernandopulle RC¹, Fernando A¹, Silva D¹, Chamara SR², Prathapan S¹

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka*

²*Ministry of Health, Colombo, Sri Lanka*

³*Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

⁴*Faculty of Medicine, University of Kelaniya, Kelaniya, Sri Lanka*

Introduction and objectives: Hypertensive disorders in pregnancy (HDP) affect 2-8% of pregnancies globally and are a leading cause of maternal and perinatal mortality. HDP contribute to approximately 4.5% of maternal deaths in Sri Lanka. This study highlights the prevalence, feto-maternal complications and recurrence patterns of HDP in subsequent pregnancies within a Sri Lankan cohort.

Methods: A retrospective cohort design was conducted to evaluate 1,350 pregnant women from three tertiary care centres over three months. Data was collected through checklists and past obstetric history was thoroughly inquired. Quantitative data were analysed using chi-square tests for trend and analysis of variance (ANOVA), with a significance level set at 5%.

Results: The prevalence of gestational hypertension (GHT) and chronic hypertension (CHT) in multiparous women was 11.8% and 2.6%, respectively, while it was 10.2% and 2.5% in primiparous women. Women with a history of GHT were significantly more likely to develop GHT than those without prior HDP (OR = 8.1, 95% CI: 5.6–11.7). Additionally, prior GHT was associated with an increased likelihood of developing CHT in the current pregnancy (OR = 3.1, 95% CI: 1.1–8.5). Incidence of caesarean delivery, placental abruption and preterm delivery were statistically significant among women with HDP ($p = 0.001$). Occurrence of any adverse neonatal outcome (low birth weight, low APGAR score, neonatal sepsis and hypoglycaemia) was significantly higher in pregnancies complicated by hypertension, affecting 48% of GHT and 65.0% of CHT compared to 26.8% in normotensive women ($p = 0.001$).

Conclusions: Past history of GHT is strongly associated with higher incidence of HDP in the current pregnancy. Early detection, continuous antenatal surveillance, optimum pharmacological therapy and appropriate timing of delivery are cornerstones of management.

Gestational weight gain and associated factors among pregnant women admitted to a selected hospital in Colombo

Nijras M.C.M¹, Jayasekara A.T.P¹, Wijayathilaka T.W¹, Nayar R.N.R.D¹, Mudalige A.M.S²

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura*

²*Department of Community Medicine, Faculty of Medical Sciences. University of Sri Jayewardenepura*

Background: Gestational weight gain (GWG) is an important determinant of maternal and neonatal health. But many women fail to achieve optimum GWG based on their pre-pregnancy body mass index (BMI). Identifying factors that associate with GWG is essential for targeted interventions.

Objective: To describe gestational weight gain and associated factors among pregnant women admitted for delivery to a selected hospital in Colombo district.

Methods: A descriptive cross-sectional study was conducted among 340 pregnant women admitted for the delivery at Colombo south Teaching Hospital using consecutive sampling. Socio-demographic factors, pregnancy related and psychosocial factors were collected through interviews and medical records. Data were presented using descriptive and inferential statistics.

Results: Among the study population 32.5% of women achieved adequate GWG. Nearly half (45%) of the study population experienced inadequate gain, while 22.5% experienced excessive weight gain. Pre-pregnancy low BMI was a strong predictor of inadequate GWG ($p < 0.001$), Higher maternal age ($p < 0.05$), primi parity ($p = 0.0021$) were significantly associated with inadequate GWG. Psychosocial factors, education level, household income, or gestational age did not show a significant association with GWG.

Conclusions: Inadequate GWG associated with low prepregnancy BMI is a problem which emphasises the need of targeted pre conceptional nutritional counselling and strengthened antenatal nutritional monitoring to ensure women meet optimal weight gain targets.

Knowledge, Attitudes and Coping strategies Related to Menstrual Pain and Factors Associated with usage of Coping Strategies Among Female Athletes in University of Colombo, Sri Lanka.

Botheju WTN¹, Bandara NPDV¹, Bandara AMSS¹, Bandara PWKB¹, Dassanayake VE¹

¹Faculty of Medicine, University of Colombo

Introduction: Menstrual pain is a common health concern among female athletes and its normalization hinders effective coping. Evidence on knowledge, attitudes and associated factors influencing coping strategies and usage among Sri Lankan university athletes remains limited. This study aims to assess knowledge, attitudes, and coping strategies regarding menstrual pain and identify associated factors influencing usage among female athletes at the University of Colombo.

Methods: This descriptive cross-sectional study surveyed 118 female athletes (aged 20 -28 years) involved in a variety of sporting disciplines at the University of Colombo. Participants experiencing menstrual pain based on WaLIDD criteria, completed a self-administered questionnaire. Knowledge and attitude scores were computed. Coping strategies were classified as pharmacological, non-pharmacological, combined or none and later dichotomized to 'uses a strategy' and 'uses none'. Data were analyzed using SPSS with Chi square/ Fisher's exact tests, independent sample t-tests and Pearson's correlation. A p value <0.05 was considered statistically significant.

Results: The mean age was 22.5 years (SD= 1.4). Notably, 76.7% (n=89) reported moderate-severe menstrual pain. The most common strategy used was a combination of pharmacological and non- pharmacological methods (n= 48, 41.4%). Participants who utilized a coping strategy reported higher mean knowledge scores (p=0.011) and more positive attitude scores (p<0.001). A weak but positive correlation was observed between knowledge and attitude scores (r= 0.203, p=0.03).

Conclusions: Knowledge and attitudes significantly influence coping strategy utilization among female athletes with menstrual pain. Improving menstrual health literacy and positive attitudes may improve health-seeking behaviour and pain management in this population.

Epidemiological Trends and Histological Patterns of Endometrial Cancer in Sri Lanka: A Population-Based Study

Weerasooriya RMBS¹, Jayakody SL², Alles CNRA¹, Soysa NS^{2,3}

¹*Department of Biochemistry, Faculty of Medicine, University of Peradeniya.*

²*Center for Research in Oral Cancer, Faculty of Dental Sciences, University of Peradeniya.*

³*Department of Oral Medicine and Periodontology, Faculty of Dental Sciences, University of Peradeniya.*

Introduction: Endometrial cancer (EC) is the second most common gynecological malignancy worldwide, with rising incidence in low- and middle-income countries amid rapid socioeconomic transitions. Comprehensive national trend data on EC in Sri Lanka remain scarce. This study aimed to assess temporal trends in EC incidence and characterize histological distribution patterns from 2006 to 2022.

Methodology: This retrospective, population-based study analyzed annual cancer incidence data from National Cancer Control Programme registries. As the registries do not record EC as a discrete category, total uterine cancer cases were used as a proxy; validation confirmed EC and uterine carcinoma NOS cases collectively accounted for 96.64% of total uterine cancer cases in available years (2011, 2016–2022). Histological data were classified using WHO tumor classification guidelines and ICD-O codes. ASRs were calculated using the world standard population, and joinpoint regression estimated AAPCs with 95% confidence intervals using NCI Joinpoint Trend Analysis Software.

Results: A total of 12,493 uterine cancer cases were documented, used as a proxy for EC incidence. EC demonstrated a statistically significant escalation with an AAPC of 7.89% ($p < 0.001$; 95% CI: 6.64, 9.70) and ASR rising nearly threefold from 2.95 in 2006 to 9.77 in 2022. Histologically, epithelial carcinomas predominated (79.28%), followed by unspecified neoplasms (11.79%) and mesenchymal and mixed tumors (8.64%).

Conclusions: Sri Lanka is experiencing a rapidly escalating EC burden with incidence nearly tripling over 17 years. These findings highlight the urgent need for targeted prevention strategies addressing risk factors, strengthened cancer registration, and further investigation into drivers of this alarming trend.

Predictive accuracy and clinical feasibility of AI-enabled wearable multi-sensor systems for early detection of adverse obstetric outcomes in low-resource settings: A systematic review and meta-analysis

Abeykoon AMDP¹, Cooray MST², Fernando WCYA³

¹*Faculty of Medicine, University of Colombo*

²*Department of Electronics and Telecommunication (Biomedical Engineering), University of Moratuwa*

³*School of Computing (Software Engineering), Informatics Institute of Technology affiliated with University of Westminster*

Introduction and Objectives: Globally, over 287,000 maternal and 2.4 million neonatal deaths occur annually, exceeding 90% in low- and middle-income countries (LMICs). Inadequate continuous fetal and maternal monitoring remains a critical driver of preventable mortality. This review evaluated the predictive accuracy and LMIC deployment feasibility of AI-powered wearable multi-sensor systems for early detection of adverse obstetric outcomes.

Method: Nine databases (PubMed, Embase, Cochrane, IEEE Xplore, ACM Digital Library, arXiv, WHO Global Index Medicus, Scopus, Web of Science) were searched systematically for literature published January 2025–May 2026. PICO-guided eligibility assessment was applied. After removing duplicates, 114 unique records were screened; five met full eligibility criteria. A DerSimonian-Laird random-effects meta-analysis was performed on two studies reporting extractable diagnostic accuracy data. Bias was assessed using QUADAS-2.

Results: Pooled sensitivity was 93.28% (95% CI: 85.52–100%; I²=68.4%) and pooled specificity was 93.95% (95% CI: 89.90–97.99%; I²=42.1%). Pooled AUC-ROC was 0.9944 (95% CI: 0.9910–0.9978). Edge-AI inference was demonstrated at 0.641 μ J/operation with 48-hour battery autonomy, compatible with offline LMIC deployment at a bill-of-materials below \$50 USD.

Conclusions: AI-enabled wearable sensors demonstrate near-perfect diagnostic accuracy for maternal and fetal monitoring. A frugal multi-sensor platform integrating IMU, ECG, and piezoelectric modalities with offline edge-AI inference is technically feasible for LMIC deployment. Prospective LMIC trials with ultrasound-validated reference standards are urgently needed to bridge the evidence-to-implementation gap.

Independent predictors of neonatal intensive care unit admission among neonates born to mothers with hypertensive disorders of pregnancy: a multivariate analysis at a tertiary hospital in Sri Lanka

Kandauda IC¹, Ralapanawa U², Wijesinghe AGUN¹, Tennakoon SUB³

¹*Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Peradeniya, Sri Lanka*

²*Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka*

³*Department of Community Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and Objectives: Neonatal intensive care unit (NICU) admission is a major adverse neonatal outcome in pregnancies complicated with hypertensive disorders of pregnancy (HDP). Identifying its independent predictors is important to enhance neonatal preparedness and resource distribution in tertiary obstetric settings. Therefore, this study aimed to identify independent predictors of NICU admission among neonates born to mothers with HDP.

Methods: A cross-sectional descriptive study was conducted at Teaching Hospital, Peradeniya, recruiting 302 mothers with HDP at ≥ 30 weeks' gestation. A validated interviewer-administered questionnaire was used to collect data, were analyzed using SPSS 27.0. Fisher's exact test assessed associations ($p \leq 0.05$). Multivariate logistic regression identified independent predictors of NICU admission, with variables achieving $p < 0.20$ on univariate analysis included in the adjusted model. Results were reported as adjusted odds ratios (aOR) with 95% confidence intervals (CI) ($p < 0.05$). Ethical approval was obtained from the Ethical Review Committee, Faculty of Medicine, University of Peradeniya (2015/EC/69).

Results: The NICU admission rate was 16.5% ($n=40$). On multivariate logistic regression, the strongest independent predictor of NICU admission was identified as low birth weight (LBW) (aOR=7.13, 95% CI: 2.74–18.56, $p<0.001$), followed by intrauterine growth restriction (IUGR) (aOR=5.25, 95% CI: 1.32–20.86, $p=0.018$). Poor family income was an independent risk factor for NICU admission (aOR=0.37, 95% CI: 0.15–0.91, $p=0.031$).

Conclusions: LBW and IUGR are the most critical independent predictors of NICU admission in HDP complicated pregnancies. These findings highlight the importance of fetal growth monitoring to reduce preventable NICU admissions.

Antibiotic Misuse in Obstetric and Gynaecological Ward

Jayatileke K¹, Anuththara RMS², Abeyasinghe AMAN², Ravihari NWPCD², Jayasinghe JMPS²

¹Sri Jayewardenepura General Hospital, Nugegoda, Sri Lanka

²Durdans Hospital, Colombo, Sri Lanka

Introduction and Objectives: Antimicrobial resistance (AMR) affects human health, with significant global economic and security implications. Appropriate antimicrobial prophylaxis in obstetric and gynaecological (O&G) procedures is essential to prevent surgical site infections, while reducing AMR and adverse drug reactions in patients, including pregnant or lactating mothers and their offspring. This study aimed to evaluate and improve the compliance of antimicrobial prophylaxis practices with the recommendations of the Empirical and Prophylactic Use of Antimicrobials National Guideline Sri Lanka (NAG), in the O&G ward.

Method: A retrospective cross-sectional observational study was conducted using medical records of 99 discharged patients who underwent O&G procedures at a private hospital in December 2025 to assess the appropriateness of antibiotic use based on the NAG recommendations.

Results: Among the 99 patients, only 72 (73%) required antimicrobial prophylaxis according to the NAG. Antibiotics were prescribed to 20/25 (80%) patients undergoing normal vaginal deliveries, where prophylaxis was not indicated. Only 1/9 of obstetricians consistently didn't use antibiotics. Among the patients who required prophylaxis, only 39 were administered antibiotics within the recommended 60 minutes before surgery. Postoperative antibiotic use was frequently prolonged, antibiotics were discontinued within the recommended 24 hours in only 4 patients, while the antibiotics were administered for more than 48 hours in 84 patients.

Conclusions: This study indicates significant non-compliance with NAG recommendations regarding the indication, timing, and duration of antimicrobial prophylaxis in the O&G ward. Communicating the findings with the obstetricians and appreciating the person who followed the guideline is planned along with the re-audit.

Awareness of Hormone Replacement Therapy among female staff at National Hospital Kandy: A Sub-Analysis of a Gynecological Cancer Screening Survey

Kularathna NK¹, Sendanayakage SU², Liyanage VDP³, Lakshitha KH⁴

¹*Department of Radiology, Faculty of Medicine, University of Peradeniya.*

²*German-Srilankan Friendship Hospital for women, Galle*

³*Department of Surgery, Faculty of Medicine, University of Peradeniya.*

⁴*Department of Biochemistry, Faculty of Medicine, University of Peradeniya.*

Introduction and Objectives: Hormone Replacement Therapy (HRT) is an established intervention for managing menopausal symptoms. Despite its clinical relevance, awareness and knowledge of HRT among hospital staff across various disciplines remains poorly characterized. As healthcare professionals serve as primary advisors to patients, adequate knowledge of HRT is essential for evidence-based counselling and timely referral. This study aims to assess the awareness of HRT and personal willingness to use HRT among female hospital staff, and to determine whether education level was significantly associated with HRT awareness.

Methods: A cross-sectional survey was conducted among female hospital staff at National Hospital Kandy. Participants' awareness of HRT and their personal willingness to use it, was assessed. Participants were stratified by their highest educational qualification: degree, advanced level (A/L), and ordinary level (O/L). Association between education level and HRT awareness was assessed using the chi-square test ($p < 0.05$)

Results: A total of 194 female hospital staff participated. HRT awareness was 50% ($n=97$). Awareness varied significantly by education level: degree holders 51.7%, A/L staff 57.7%, and O/L staff 21.9%. Chi-square analysis revealed a statistically significant association between education level and HRT awareness ($\chi^2 = 12.66$, $df = 2$, $p = 0.002$). Among the aware participants, only 16 (16.5%) expressed willingness to use HRT personally.

Conclusion: Education level is significantly associated with HRT awareness among female hospital staff. Considerable hesitancy to use HRT even among aware staff highlights the need for structured educational programs addressing knowledge gaps and misconceptions surrounding HRT among hospital staff.

Prevalence, associated factors, and maternal awareness of gestational diabetes mellitus among pregnant mothers attending antenatal clinics at Teaching Hospital Mahamodara

Jayathilake JHABN¹, Jayathissa BKNI¹, Jayaweera JMNH¹, Jesmine AAFZ¹, Kadanhena KDNT¹, Liyanage VDP², Ponnampuruma T¹

¹*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Sri Lanka*

²*Department of Surgery, Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and Objectives: Gestational diabetes mellitus (GDM) is a common metabolic disorder in pregnancy, with a high prevalence in South-East Asia. Limited data are available regarding maternal awareness and contributory factors associated with GDM in Sri Lanka. This study aimed to assess the prevalence, maternal awareness, and associated factors of GDM among mothers attending antenatal clinics at Teaching Hospital Mahamodara.

Methodology: A cross-sectional study was conducted among antenatal clinic attendees using consecutive sampling. A self-administered questionnaire assessed awareness regarding GDM, lifestyle factors, family history, and dietary habits. Awareness scores were categorised as poor, average, or good. Dietary patterns were assessed using the Sri Lankan food pyramid and a food portion atlas. Associations between GDM and selected factors were analysed using appropriate statistical tests, with $p < 0.05$ considered significant.

Results: A total of 397 mothers were included, with a mean age of 31.53 years (SD 5.40). The prevalence of GDM was 29.47% ($n=117$). Most participants (75.06%) demonstrated good awareness regarding GDM. Mothers with GDM more commonly reported unhealthy dietary patterns, while non-GDM mothers more frequently consumed smaller portions or avoided unhealthy foods. GDM was significantly associated with family history, high BMI, limited physical activity, and unhealthy diet (all $p < 0.001$). No significant association was observed between GDM and maternal age ($p=0.482$).

Conclusions: Nearly one-third of pregnant mothers were diagnosed with GDM. Unhealthy dietary habits and modifiable lifestyle factors were significantly associated with GDM. Strengthening screening and targeted health education before and during pregnancy may help reduce the burden of GDM in Sri Lanka.

Knowledge and practices regarding contraceptive use among female healthcare workers in Sri Lanka

Jayathilake JHABN¹, Sendanayakage SU², Lakshitha KH³, Kularathna NK⁴, Liyanage VDP⁵

¹*International Patient Care Unit, Asiri Hospital Kandy*

²*German-Sri Lanka Friendship Hospital for women, Galle*

³*Department of Biochemistry, Faculty of Medicine, University of Peradeniya*

⁴*Department of Radiology, Faculty of Medicine, University of Peradeniya*

⁵*Department of Surgery, Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Contraceptive use is an important component of reproductive healthcare and plays a major role in preventing unintended pregnancies and improving maternal health outcomes. Despite the increasing availability of contraceptive methods, barriers to utilization remain prevalent. This study aimed to assess knowledge and practices regarding contraceptive use among female healthcare workers in Sri Lanka.

Methodology: A cross-sectional study was conducted among female healthcare workers using a self-administered questionnaire. This study was conducted as a subsidiary analysis of a larger survey on gynecological cancer screening among female healthcare workers. Data regarding demographic characteristics, sexual activity, reproductive intentions, contraceptive use, and reasons for non-use were analyzed using descriptive statistics. Chi-square tests were used where appropriate, with $p < 0.05$ considered statistically significant.

Results: A total of 188 participants were included. Most respondents were nursing officers (49.4%) and hospital support staff (36.1%). Among respondents potentially at risk of pregnancy, 87.8% were sexually active and 90.5% wished to avoid pregnancy. However, only 54.0% were using contraception. Among non-users, feeling not at risk of pregnancy was the commonest reason for non-use (58.5%, $p < 0.001$), followed by fear of side effects (10.8%). Among participants aged 26–40 years, male condoms were the commonest contraceptive method, whereas sterilization was commonest among those aged 41–55 years.

Conclusions: Although most participants wished to avoid pregnancy, nearly half were not using contraception. Misperceptions regarding pregnancy risk and concerns about side effects were major barriers to contraceptive use. Targeted educational and counselling interventions may improve contraceptive awareness and uptake among female healthcare workers in Sri Lanka.

Prevalence of gestational diabetes in the Batticaloa medical officer of health area: A comparison using current and proposed Sri Lankan diagnostic criteria

Pragasam G¹, Venkadesappirabu Y², Chulasiri MPPU³

¹ *Department of Primary Healthcare, Faculty of Health-Care Sciences, Eastern University Sri Lanka*

² *Teaching Hospital Batticaloa,* ³ *Anti Malaria Campaign, Ministry of Health*

Introduction and objectives: Gestational diabetes mellitus (GDM) is significantly associated with a wide range of short and long-term complications in both the mother and the offspring. This study compared GDM prevalence under current national diagnostic criteria with that under proposed criteria from the Sri Lanka College of Obstetricians and Gynaecologists, which feature lower fasting thresholds and higher post-load thresholds.

Method: A community-based analytical cross-sectional study was conducted among women in the Batticaloa Medical Officer of Health area who delivered in 2023. Data were extracted from antenatal records.

Results: A total of 906 mothers were recruited. The mean age was 29.0 years (SD 5.3), and the majority were Tamils (83%). The prevalence of pre-existing diabetes and diabetes in pregnancy were 1.1% (n=10) and 2.9% (n=26), respectively. The proposed criteria classified 178 women as early onset GDM (before 20 weeks) and 145 as late onset GDM, giving an overall GDM prevalence of 35.6%. The current criteria classified 137 women with early onset GDM and 92 with late onset GDM, giving an overall GDM prevalence of 25.3%. Overall diagnostic agreement between the two criteria was 87.2% (790/906). The proposed criteria identified 94 additional GDM cases (39 early-onset and 55 late-onset) that were classified as normal under the current criteria.

Conclusion: Adoption of the proposed diagnostic criteria would increase the prevalence of GDM by about 10.3%. Although the proposed criteria may improve case detection, further evaluations are needed to assess their clinical implications, impact on maternal and neonatal outcomes, and service burden before national implementation.

Molecular characterization of selected mismatch repair gene variants in Sri Lankan patients with Endometrial cancer highly suggestive of Lynch Syndrome

Azim S¹, Abeysuriya V¹, De Silva S¹, Piyadigama I²

¹ *Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo*

² *De Soysa Hospital for Women, Colombo*

Introduction and Objectives: Endometrial cancer is a common gynecological malignancy and important extra-colonic tumor associated with Lynch syndrome; an autosomal dominant hereditary cancer syndrome caused by mutations in the DNA mismatch repair genes. Such defects promote genomic instability and carcinogenesis. In Sri Lanka, molecular data and protocols for hereditary endometrial cancer management remain limited. This preliminary study characterized variants in exon 6 of *MSH2* and exon 5 of *MSH6* among patients clinically suggestive of Lynch syndrome.

Method: A descriptive molecular study was conducted among eight participants selected using clinical criteria. The cohort included six endometrial cancer patients diagnosed before 50 years of age with a strong family history of cancer, one at-risk individual, and one healthy control. Genomic DNA was extracted, target regions were amplified using custom-designed primers, and amplicons were analyzed by Sanger sequencing. Variants were identified using BioEdit and Mutation Surveyor and interpreted using PolyPhen-2 and LUMC Mutalyzer-3.

Results: An *MSH6* c.3252_3253delTA variant was detected in one patient sample. A reported intronic *MSH6* variant c.3438+14A>T (rs2020911) was detected in all participants in either heterozygous or homozygous states. Two *MSH2* variants, c.3303G>A and c.3358G>A, were detected in the healthy control.

Conclusions: Three novel variants were identified: one potentially pathogenic *MSH6* deletion in one patient and two *MSH2* variants predicted to be benign in the healthy control. The common *MSH6* rs2020911 variant appeared benign. These findings support larger Sri Lankan studies and local hereditary endometrial cancer testing pathways for genetic counselling and surveillance programs.

Beyond Iron deficiency - A comprehensive national survey of etiology of anaemia in Sri Lankan young adults

Amarasingha D¹, Silva R², Perera L³, Wickramasinghe N⁴, Piyathunga D⁴, Gooneratne L⁵, Jayatissa R⁶, Dharmabandu S⁷, Chen P⁸, Fucharoen S^{9,10}, Perera S¹¹, Premawardhena A^{3,4}

¹ Department of Medical Laboratory Science, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka

² Department of Medical Laboratory Sciences, Faculty of Health Sciences, Open University of Sri Lanka, Sri Jayewardenepura Kotte, Sri Lanka

³ Department of Medicine, Faculty of Medicine, University of Kelaniya, Kelaniya, Sri Lanka

⁴ Adult and Adolescent Thalassemia Care Unit, North Colombo Teaching Hospital, Ragama, Sri Lanka

⁵ Department of Pathology, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka

⁶ Faculty of Food and Nutrition, International Institute of Health Sciences, Welisara, Sri Lanka

⁷ German Sri Lanka Friendship Maternity Hospital, Karapitiya, Galle, Sri Lanka

⁸ NHC Key Laboratory of Thalassemia Medicine, Guangxi Key laboratory of Thalassemia Research, The First Affiliated Hospital, Guangxi Medical University, Nanning, Guangxi, P. R. China

⁹ Institute of Science and Technology for Research and Development, Mahidol University, Bangkok, Thailand

¹⁰ Samitvej Srinakatin Hospital, Bangkok, Thailand

¹¹ Department of Biochemistry and Clinical Chemistry, Faculty of Medicine, University of Kelaniya, Kelaniya, Sri Lanka

Introduction: Previous studies in Sri Lanka have investigated the prevalence and causes of anaemia, mainly emphasizing iron deficiency while overlooking other causes such as enzymopathies, membranopathies, and haemoglobinopathies. Furthermore, several studies reported unexplained cases of anaemia even after detailed evaluation. This study aimed to determine the prevalence and causes of anaemia among community-based young adults in Sri Lanka.

Method: A descriptive cross-sectional study was conducted from 31.01.2023 to 01.12.2024 in all 9 provinces in Sri Lanka. A quota-based provincial sampling strategy was employed, targeting vocational training centers to capture a representative cohort of the Sri Lankan young adult population of 18 to 30 years of age. Altogether 1800 study participants were recruited. Sociodemographic data and blood samples were collected using standardized procedures. Anaemic individuals underwent further investigations including serum iron studies, C-reactive protein, vitamin B12 assay, folate assay, and thalassaemia screening. Uncharacterized anaemia individuals were further assessed using red cell enzyme assays, eosin-5'-maleimide dye binding test, and whole-exome sequencing to detect potential genetic causes.

Results: The mean ($\pm$ SD) age of the study participants was 23.90 $\pm$ 1.98 years. Anaemia prevalence was 15.0%. The main causes were iron deficiency (49.3%), folate deficiency (27.8%), and vitamin B12 deficiency (14.4%). Haemoglobinopathy traits were identified in 25.6%, frequently in combination with nutritional deficiencies. A substantial proportion of anaemic individuals exhibited coexisting aetiologies rather than a single cause. Initially, 17.4% remained

uncharacterized, but advanced testing identified variants suggestive of hereditary spherocytosis and congenital dyserythropoietic anaemia or dyskeratosis congenita.

Conclusion: This first community-based Sri Lankan study integrating advanced diagnostics revealed that, although iron deficiency predominates, genetic and enzymatic disorders contribute notably, highlighting the need for broader diagnostic strategies in anaemia screening in the community.

Efficacy of different regimens of oral iron therapy in the treatment of iron deficiency anaemia: A randomized controlled trial.

Mettananda KCD¹, Mallawa MSR¹, Fernando PSN¹, Dissanayake DMS¹, Kariyawasam T¹, Premaratna RA¹, Fernando JSU¹, Mirihagalla K², Wickremasinghe R³, Williams S²

¹*Department of Pharmacology, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka*

²*Department of Pathology, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka*

³*Department of Public Health, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka*

Introduction and objectives : There is mixed evidence for reduced iron absorption in Iron deficiency anaemia (IDA) when Fe is supplemented daily, due to hepcidin, the iron regulator. We aimed to compare the efficacy of ferrous fumarate 60 mg once a day, 60 mg and 120 mg alternate-day therapy in improving haemoglobin levels in IDA.

Methods: This single-blind, parallel-group, randomized, clinical trial consists of consecutive eligible patients with hemoglobin [Hb] ≤ 10.5 g/dL and serum ferritin < 50 ng/mL who were randomly allocated to three arms for 12 weeks: 60 mg daily (Arm A, usual care), 60 mg (Arm B) and 120 mg (Arm C) alternate day. The primary outcome was mean Hb change from baseline; the secondary outcome was the prevalence of side effects (SE). We analyzed mean Hb change and SE proportions across the three groups.

Results: 102 participants were allocated to Arms A (n=40), B (n=35), and C (n=27). The mean change in hemoglobin in Arms A, B and C were: 3.7 ± 1.69 , 3.0 ± 1.25 and 2.50 ± 0.20 g/dL, respectively and comparisons between Arms B and A ($p = 0.480$), C and A ($p = 0.449$) and C and B ($p = 0.522$) were not different. The proportions who experienced SE in Arms A, B, and C were 37.5%, 31.4%, and 18.5%, respectively, and comparisons between Arms B and A ($p = 0.633$), C and A ($p = 0.111$), and C and B ($p = 0.381$) were not different.

Conclusion: Every other day, iron replacement with half the total dose was not different to daily iron replacement thus improving cost-effectiveness and compliance.

Effects of *Moringa oleifera* Supplementation on Haemoglobin Concentration: A Systematic Review and Meta-Analysis

Rathnaweera CL¹ Dayarathna HLP² Yasara N*¹ Premawardhena A^{3,4,2} Perera S¹

¹Department of Biochemistry and Clinical Chemistry, Faculty of Medicine, University of Kelaniya.

²Department of Physiology, Faculty of Medicine, University of Kelaniya.

³Department of Medicine, Faculty of Medicine, University of Kelaniya.

⁴Professorial Medical Unit, Colombo North Teaching Hospital, Ragama

Introduction: *Moringa oleifera* has been widely investigated as a nutritional intervention for improving haemoglobin concentration; however, existing evidence remains inconsistent. This study aimed to systematically evaluate the effect of *Moringa* supplementation on haemoglobin levels.

Methodology: A systematic search of PubMed, Scopus, and Web of Science was conducted up to 2 January 2026. Articles were selected based on predefined inclusion and exclusion criteria. Meta-analysis was restricted to controlled studies (randomised and quasi-experimental). Pooled mean differences (MDs) compared to the control were estimated using a random-effects model, with heterogeneity assessed using the I^2 statistic. Subgroup analysis, study quality and publication bias assessment were performed.

Results: Fourteen studies were included in the qualitative synthesis (6 randomised controlled trials and 8 quasi-experimental studies). *Moringa* supplementation was associated with a significant increase in haemoglobin levels compared to controls (MD = 0.64 g/dL, 95% CI 0.24–1.04), although substantial heterogeneity was observed ($I^2 = 94.8\%$). Subgroup analyses showed larger effects in quasi-experimental studies than in randomised trials, but no subgroup differences reached statistical significance. Meta-regression indicated that study design partially explained heterogeneity ($R^2 \approx 13\%$). Sensitivity analyses confirmed the robustness of the findings, although the effect size was influenced by a small number of studies with large effects. No significant publication bias was detected.

Conclusion: *Moringa oleifera* supplementation is associated with a modest but significant increase in haemoglobin levels compared to the controls. However, considerable heterogeneity requires cautious interpretation, and further high-quality trials are needed.

Prevalence of hepatitis B and C in beta-thalassemia: systematic review and meta-analysis

Yasara N¹, Madiwila N¹, Rathnapala HC¹, Thilakarathne S², Perera S¹, Premawardhena A^{1,2}, Mettananda S^{1,2}

¹ *Faculty of Medicine, University of Kelaniya, Sri Lanka*

² *Colombo North Teaching Hospital, Sri Lanka*

Introduction and objectives: β -thalassemia patients require lifelong blood transfusions, which increase the risk of transfusion-transmitted infections, particularly hepatitis B virus (HBV) and hepatitis C virus (HCV). This systematic review and meta-analysis aimed to assess the pooled prevalence of HBV and HCV infections among patients with β -thalassemia.

Methods: PubMed and Scopus databases were systematically searched for studies published during the past 10 years. Eligible studies were selected according to predefined criteria. Random-effects meta-analysis was performed to estimate the pooled prevalence. Heterogeneity was assessed using the I^2 statistic. Subgroup analyses were conducted. Publication bias and methodological quality of included studies were also assessed.

Results: A total of 37 studies from multiple countries across Asia and the Middle East were included in the analysis. The pooled prevalence of anti-HCV seropositivity and active HCV infection were 22% (95%CI:17–28%; $I^2=96.3\%$), and 12% (95%CI:7–22%; $I^2=97.3\%$), respectively. The pooled prevalence of HBV infection based on HBsAg positivity was 4% (95%CI:3–5%; $I^2=84.6\%$). Prevalence of HCV showed significant regional and country-level variation, with the highest prevalence reported in Pakistan and the South Asian region. Subgroup analyses of HBV did not demonstrate statistically significant differences. No evidence of publication bias was observed, and most included studies were of moderate to good methodological quality.

Conclusion: HCV infection is highly prevalent among β -thalassemia patients, while HBV prevalence is comparatively lower, potentially reflecting the positive impact of HBV vaccination. This highlights the ongoing need for strengthened transfusion safety measures and routine viral screening among patients.

Epigenetic Regulator *ASXL1* c.1773C>G (p.Tyr591Ter) and *ASXL1* c.1282C>T (p.Gln428Ter) Variant Study in a Sri Lankan Cohort of Patients with Myeloproliferative Neoplasms

Manamperi ST¹, Karunathilake ST¹, Amarasinghe N², Costa YJ², Goonasekara HWW¹

¹Center for Genetics and Genomics, Department of Anatomy, Genetics and Biomedical Informatics, Faculty of Medicine, University of Colombo, Sri Lanka

²Department of Haematology, Colombo North Teaching Hospital, Ragama, Sri Lanka

Introduction and Objectives: The *ASXL1* Transcriptional Regulator 1 (*ASXL1*) gene is an epigenetic regulator co-occurring with driver mutations in Myeloproliferative Neoplasms (MPN) with 10-15% overall frequency. Sri Lankan MPN *ASXL1* mutation data is lacking in literature. Development of PCR based protocols for *ASXL1* variant detection and study of variant frequency and clinicopathological associations in Sri Lankan MPN patients was done.

Methods: A descriptive study on MPN patients diagnosed with polycythaemia vera (PV), essential thrombocythaemia (ET), and primary myelofibrosis (PMF) done following ethical approval. Variants selected using gnomAD and VarSome databases. DNA extracted from peripheral blood samples and, a Tetra-primer ARMS-PCR was optimised and results obtained. Sanger sequencing validation performed. Data analysis was done using IBM SPSS version 19.

Results: *ASXL1* c.1773C>G(p.Tyr591Ter; rs371369583) and c.1282C>T(p.Gln428Ter; rs886041975) were investigated in 50 patients: PV 82%(n=41), ET 10%(n=5), and PMF 8%(n=4). Male-to-female ratio was 2.3:1. Heterozygous c.1773C>G was detected in 12%(n=6): three PV, two ET, and one PMF patient. All PV patients were *JAK2*V617F-positive, and one had thrombosis. One ET patient was *JAK2*V617F-positive; the other was triple negative. PMF patient carried a *CALR* type 1. Variant-positive patients were older, with lower mean haemoglobin and haematocrit and higher mean platelet counts, but differences were not statistically significant ($p>0.05$). The c.1282C>T variant was not detected.

Conclusions: Asian specific *ASXL1*c.1773C>G variant is reported for the first time in MPN; with occurrence and frequency similar to reported data of *ASXL1* variants in MPN; using a cost-effective testing method. Significant clinicopathological associations require larger MPN subtype studies.

Unmasking Red Blood Cell Membrane Disorders: Developing a Cost-Effective Diagnostic Algorithm in a Sri Lankan Cohort

Silva HJRL¹, Amarasinghe AADS², Gooneratne LV³, Williams HSA⁴, Kumar V⁵, Kajal⁵, Jamwal M⁵, Das R⁵, Perera PS⁶, Premawardhena AP⁷

¹Department of Medical Laboratory Sciences, Faculty of Health Sciences, The Open University of Sri Lanka, Sri Lanka

²Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, University of Ruhuna, Sri Lanka

³Department of Pathology, Faculty of Medicine, University of Colombo, Sri Lanka

⁴Department of Pathology, Faculty of Medicine, University of Kelaniya, Sri Lanka

⁵Department of Hematology, Post Graduate Institute of Medical Education and Research, Chandigarh, India

⁶Department of Biochemistry & Clinical Chemistry, Faculty of Medicine, University of Kelaniya, Sri Lanka

⁷Department of Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction and Objectives: Red blood cell (RBC) membranopathies are frequently misdiagnosed in resource-limited settings due to a heavy reliance on conventional, nonspecific diagnostic modalities. This study proposes a technically robust, cost-effective diagnostic algorithm by evaluating traditional hematological tools against molecular genomics in a Sri Lankan cohort.

Methodology: A prospective cross-sectional study (2020–2024) reassessed 55 patients with suspected membranopathies using peripheral blood smears, osmotic fragility (OF), cryohemolysis, and the Eosin-5'-maleimide (EMA) dye binding assay. Next-generation sequencing (NGS) was performed on a severely anemic subset (n=25) to genetically validate prior phenotypic diagnoses.

Results: Traditional parameters (peripheral blood smears, OF) exhibited low specificity. Critically, genomic profiling via NGS definitively excluded membranopathies in 36% (9/25) of patients previously diagnosed via conventional methods, exposing the severe diagnostic inaccuracy of isolated traditional testing. Conversely, the EMA assay emerged as a superior phenotypic screening tool for Hereditary Spherocytosis (HS) and Hereditary Pyropoikilocytosis (HPP). When evaluated against NGS-confirmed cases, the EMA assay achieved 100% sensitivity and 79% accuracy in HS (n=14), and 67% sensitivity, 100% specificity, and 75% accuracy in HPP (n=4). The remaining 30 patients were classified based on peripheral blood smear, OF, and EMA findings.

Conclusion: Sole reliance on basic clinical and hematological assessments results in the substantial overdiagnosis of RBC membranopathies. Implementing a methodical, stepwise algorithm—deploying the highly predictive EMA assay as a primary screen to judiciously triage patients for targeted NGS—drastically reduces misdiagnosis. This tiered strategy optimizes diagnostic precision, ensuring cost-effective resource allocation in developing nations.

Economic Impact of Glycemic Control on Long-Term Diabetes Outcomes in Sri Lanka: A Markov Model Analysis

Muthukuda DT¹, Nimansha JSA¹, Jayawickreme KP², Subasinghe CJ³, Herath JIP¹, Samarasekara TG³, Wijeratne T⁶, Gunawardane IKPS¹, Niriella MA⁴, de Silva T⁵, Adler AI⁷

¹ Sri Jayewardenepura General Hospital, Sri Lanka

² Department of Diabetes and Endocrinology, Royal North Shore Hospital, NSW, Australia

³ Colombo North Teaching Hospital, Ragama, Sri Lanka

⁴ Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka

⁵ Department of Decision Sciences, University of Moratuwa, Sri Lanka

⁶ Lanka Hospitals Corporation PLC, Sri Lanka

⁷ Radcliffe Department of Medicine, University of Oxford, UK

Introduction and Objectives: Diabetes poses a significant and growing economic burden on Sri Lanka's resource-limited universal healthcare system. However, long-term evidence on the cost implications of glycemic control is scarce. This study aimed to estimate the lifetime economic burden of type 2 diabetes and evaluate the impact of glycemic control on costs and disease progression.

Method: A cohort-based Markov model simulated disease progression and complications (retinopathy, nephropathy, diabetic foot disease, and cardiovascular disease) in a hypothetical cohort diagnosed at age 35 years, over 40 years (2025–2065). The analysis adopted a societal perspective. Transition probabilities were derived from UKPDS and published international literature. Direct medical costs were estimated using Sri Lankan data and indirect productivity losses were also included. Costs were discounted at 3%. Scenarios compared good ($HbA1c \leq 7\%$) and poor glycemic control ($HbA1c > 7\%$).

Results: Total lifetime costs were substantially influenced by glycemic control. Although patients with good control incurred slightly higher direct costs due to longer survival, overall costs were lower compared to poor control. Poor glycemic control was associated with higher complication rates and greater productivity losses. The estimated total lifetime cost was LKR 7.20 million under poor control versus LKR 4.52 million under good control, representing a 37.2% reduction. Indirect costs were a major contributor to the total economic burden.

Conclusions: Optimizing glycemic control significantly reduces the long-term economic burden of diabetes in Sri Lanka. Strengthening early detection, effective disease management, and prevention strategies is essential to reduce complications, improve outcomes, and ensure sustainable healthcare financing.

Evaluation of effectiveness of existing Government Policies in supporting domestic Pharmaceutical Production in Sri Lanka

Welipitiya WD¹, Hettihewa LM², Semage SN³.

¹ *National Medicinal Regulatory Authority, Ministry of Health, Colombo.*

² *Faculty of Health Science, CINEC*

³ *Public Health Specialist*

Introduction : Sri Lanka has introduced several policy initiatives to support domestic pharmaceutical manufacturing including Buy-Back Agreements, investment incentives, procurement preferences and regulatory support mechanisms. However local manufacturers continue to demonstrate low manufacturing capacity utilization. Therefore, this study evaluates the effectiveness of the current policy framework and examines the implementation constraints and challenges affecting industry performance..

Method: This study utilized the technique of semi-structured interviews and open-ended questionnaires involving manufacturers and industry actors. The responses collected from these stakeholders were thematically analyzed.

Results: There were some limitations reported regarding policy effectiveness and key concerns were regarding slow regulatory approvals, inconsistent procurement process, and poor intra-agency cooperation, lack of transparency in policy implementation and lack of long-term perspective on the industry. The results also show concerns about the long wait in government payment to manufacturers, forecasting and lack of stable demand, dependency on imported raw materials and low incentive for research and technology up gradation. Existing policies like Buy-Back Agreements indeed helped in improving local production but due to inadequate implementation the utilization of manufacturing capacity and industry sustainability still need to be addressed.

Conclusions: It can be concluded that policy support exists for the domestic pharmaceutical manufacturers in Sri Lanka, but significant regulatory and institutional deficiencies hinder implementation, affect performance and capacity utilization. Policy inconsistency, regulatory inefficiencies and weak institutional coordination need to be addressed to enhance capacity utilization in the sector.

Global And Country-Wise Laws to Ensure Medication Safety in Patients With Sensory Disabilities: A Scoping Review

K.K.N.L. Perera¹, B.D. Ariyasinghe ², R.M.T.N. Rajapakshe³, C. L. Weeraratne³

¹ *Medical Library, Faculty of Medicine, University of Colombo, Sri Lanka*

² *Law school, Asia Pacific Institute of Information Technology, Union Place, Colombo, Sri Lanka*

³ *Department of Pharmacology, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives: Medication safety is the practice of preventing harm caused by medicines. Patients with sensory disabilities face unique risks and challenges when using medicines due to inadequate implementation of reasonable accommodations to facilitate the medicine use process. This scoping review aimed to identify existing international and country-wise laws that facilitate medication safety in patients with sensory disabilities, and the extent to which countries have adopted them.

Methods: A comprehensive search was conducted in databases including PubMed, Scopus, Google Scholar, and JSTOR. The search targeted three concepts: ‘Medication Safety’, ‘Laws and Regulatory Mechanisms’, and ‘Sensory Disabilities’. Data synthesis utilised a framework-based approach covering accessibility, communication, implementation, and barriers.

Results: The review comprised 15 sources, including 8 journal articles and 4 national laws, published between 1992 and 2025. All sources emphasised the right to accessible medication information; however, enforcement was weak across all sources. Communication issues were reported in 40% of the sources. Inspection of 75 medicine packs in the United Arab Emirates showed 0% Braille availability. Evidence from the US indicated reliance on inadequate handwritten notes instead of sign language interpreters for Deaf patients. Modelling from China demonstrated 0% voluntary adoption of Braille labelling without combined regulatory pressure.

Conclusion: Country-wise laws do not clearly specify detailed pharmaceutical standards. Ensuring medication safety requires moving beyond broad rights toward operationalised legal mandates, including standardised labelling (Braille, large print) and mandatory sign language interpreters in clinical settings.

Adaptation and Validation of The Outcome Questionnaire 45.2 to Sinhala for Clinical Use

Rajapakse RPAL¹, de Zoysa PT²

¹*Faculty of Graduate Studies, University of Colombo*

²*Faculty of Medicine, University of Colombo*

Introduction and Objectives: The Outcome Questionnaire-45.2 (OQ-45.2) is a widely used self-report instrument for assessing therapeutic outcomes across three domains: Symptom Distress, Interpersonal Relationships, and Social Role Functioning. Despite extensive international validation, a Sinhala-language version has not previously been available, limiting its use in clinical practice, research, and routine outcome monitoring among Sinhala-speaking populations in Sri Lanka. This study aimed to translate, culturally adapt, and psychometrically validate the OQ-45.2 for use in Sinhala.

Methods: The adaptation process followed cross-cultural guidelines provided by OQ Measures LLC, including forward translation, synthesis, back-translation, expert committee review, and pilot testing to ensure semantic, experiential, and conceptual equivalence. An expert panel of five (05) members from backgrounds in Psychiatry and Psychology confirmed the cultural relevance and clarity of the instrument items, with necessary adaptations made for linguistic accuracy. The final version of the Sinhala-translated OQ-45.2 was administered to a sample of 693 participants, recruited from both clinical (n = 163) and non-clinical (n = 530) settings. Psychometric evaluation included internal consistency analysis using Cronbach's α , and test-retest reliability assessment over a two-week interval was conducted for the community sample. The Reliable Change Index (RCI) was calculated for each intervention group to assess clinically meaningful change across sessions.

Results: The adapted Sinhala version of OQ -45.2 demonstrated excellent internal consistency for the total scale (Cronbach's $\alpha = .95$) and its subscales, Symptoms of Distress ($\alpha=.94$), Interpersonal Relations ($\alpha=.71$) and Social Role ($\alpha=.85$). Test-retest reliability was good ($r=0.82$, $p< 0.001$). Convergent validity was confirmed through statistically significant correlations with Patient Health Questionnaire-9 ($r=.69$, $p<0.001$), Depression Anxiety and Stress Scale-21($r=.71$, $p<0.001$) and Warwick Edinburgh Mental Wellbeing Scale ($r=-0.73$, $p<0.001$) in expected directions. Measuring RCI, Psychotherapy demonstrated the greatest short-term improvement between Sessions 1–3 and 3–5 (21.1%), whereas Pharmacotherapy showed the highest overall improvement from Session 1–5 (81.5%), exceeding both Combination therapy (53.3%) and Psychotherapy (52.6%).

Conclusion: These findings indicate that the Sinhala OQ-45.2 is a reliable and valid tool for assessing therapeutic outcomes in Sinhala-speaking populations in Sri Lanka, supporting standardised outcome monitoring and evidence-based mental health practice.

Prevalence of Depression, Anxiety, and Stress and Its Associated Factors Among Nursing Officers in a Selected Hospital in Gampaha District

Bandara HUP¹, Aakash ZM¹, Dissanayake DY¹, Jesudasan SV¹, Karasinghe KADH¹, Jayakody HG²

¹ Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

² National Institute of Health Sciences, Kaluthara, Sri Lanka

Introduction and objectives:: Nursing officers play an essential role in the healthcare system, ensuring effective patient care services. However, continuous exposure to various occupational stressors can significantly increase the risk of developing mental ill health, which can disrupt both personal and professional life. The aim of this study was to describe the prevalence of depression, anxiety & stress and to determine its associated factors among nursing officers in a selected hospital in Gampaha district.

Methodology: A cross-sectional descriptive study was conducted among 248 nursing officers including both male and female, selected using simple random sampling from the District General Hospital, Gampaha. Data were collected using a self-administered questionnaire consisting of sociodemographic, work-related, and health-related information, and the Depression, Anxiety, and Stress Scale 21. Associations between selected variables were assessed using the Chi-square test, with statistical significance set at 95% confidence level.

Results: The response rate was 100% (n=248). From the total number of nursing officers, 22.2% (n=55) had anxiety symptoms, 23.8% (n= 59) showed depressive symptoms and 21.4 % (n=53) had stress levels higher than normal scores. Age and work experience showed a statistically significant association with depression, while marital status, working unit and sleep disturbances showed a significant association with anxiety. Age, working unit, sleep disturbances, work experience & higher educational qualifications showed a significant association with stress.

Conclusion: Work experience, working unit and poor sleep were identified as modifiable associated factors for mental health problems among nurses. Addressing those factors with timely and appropriate preventive interventions and support for nurses is necessary to avoid serious mental illnesses.

Profiling global psychiatry and mental health clinical trials: a retrospective analysis (2020-2024) using WHO's International Clinical Trial Registry Platform (ICTRP) database.

Ilukkumbura SS¹, Suraweera CU^{2,3}

¹Department of Pharmacy and Pharmaceutical Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura, Sri Lanka

²Department of Psychiatry, Faculty of Medicine, University of Colombo

³Sri Lanka Clinical Trials Registry

Background: Psychiatric disorders are a major global public health burden, yet comprehensive evaluation of clinical trials across conditions remains limited. The WHO-ICTRP offers a public resource for global trial data.

Objective: To examine the characteristics, temporal trends, and geographical distribution of global psychiatry and mental health clinical trials in the WHO-ICTRP (2020-2024) and to identify research priorities and underrepresented areas.

Method: This retrospective, descriptive study analyzed WHO-ICTRP data. Trials registered between 1 January 2020 and 31 December 2024 were identified using ICD-10-derived keywords and synonyms. From 29,109 initial records, 25,080 trials remained after screening and deduplication. Data on study type, design, intervention, population, and geographical distribution were analyzed using descriptive statistics in Microsoft Excel.

Results: Depression (30.8%) and generalized anxiety disorder (23.6%) accounted for most trials, followed by dementia (8.9%), schizophrenia (6.9%), and autism spectrum disorder (6.6%). Intervention studies predominated (75.0-85.0%), with randomized controlled trials most common. Non-pharmacological interventions were frequent (approximately 75.0%), while pharmacological intervention trials comprised approximately 20.0%. The European Region (34.8%), Western Pacific Region (28.8%), and Region of the Americas (24.6%) contributed most trials, while the African Region accounted for < 1.0%. Annual trial registrations showed an overall upward trend from 2020-2024.

Conclusion: Psychiatric trial activity is heavily concentrated in high-burden disorders such as depression and anxiety and in high-income regions. This highlights global research disparities. More balanced and equitable research is needed in underrepresented regions and disorders to better align with the global burden of mental illness.

Nomophobia among University Students: A Bibliometric Review of a Growing Psychiatric Concern and Future Research Directions

Banduge RH, Kumarasinghe KHAN, Sewwandi DMP, Mahanama LPKSM.

Introduction and Objectives: Nomophobia is increasingly affecting university students and is associated with psychological and academic challenges. This study is to explore the intellectual development of nomophobia research in higher education while identifying future research directions and implications for mental health interventions and policy development.

Methods: A bibliometric analysis of 815 Scopus-indexed articles was conducted using the PRISMA protocol. The study examined publication performance, citation patterns, and research themes through science mapping and thematic analysis using Biblioshiny 4.1 software. The analysis also identified influential contributors and emerging research directions within the nomophobia literature.

Results: Annual scientific production increased fourfold between 2019 (\$n = 43\$) and 2025 (\$n = 165\$), reflecting rapid field expansion. *Frontiers in Psychology* (\$n = 50\$) and *Addictive Behaviors* (\$n = 30\$) were the most prolific sources. M.D. Griffiths led in publication output (\$n = 16\$) and local h-index (\$h = 10\$). The most cited document accumulated 249 global citations. Publication output peaked during the COVID-19 era, reflecting increased digitalization and online learning practices. China has emerged as the leading contributor to the field. The most frequent keywords were 'nomophobia,' 'smartphone addiction,' and 'anxiety.' Thematic mapping identified smartphone addiction, anxiety, and mobile phone addiction as motor themes driving the field, while physical exercise interventions, ecological momentary assessment, and latent profile analysis emerged as underdeveloped yet clinically significant research frontiers.

Conclusions: Nomophobia among university students represents a rapidly evolving public health concern with strong associations with anxiety and mental health. Future research should prioritize intervention efficacy, screening tool validation, and population-specific risk profiling to inform evidence-based clinical and institutional responses.

Association of Trunk Control and Balance Confidence with Functional Independence of Activities in Daily Living among Post-Stroke Patients in Selected Government Hospitals in Western Province, Sri Lanka

Gunathilake SAGR¹, De Silva LJ²

¹*Department of Allied Health Sciences, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Department of Pathology, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and objectives: Stroke is a major health issue, and its impairments hinder the functional independence of activities in daily living among survivors. Trunk control is an early predictor of functional independence, and balance confidence influences the activity participation of post-stroke patients. This study aimed to determine the association of trunk control and balance confidence with functional independence of activities of daily living (ADL) among post-stroke patients.

Methods: This cross-sectional analytical study included 80 consecutively sampled post-stroke patients attending physiotherapy units in four selected government hospitals in Western Province. The trunk control test, Activities-specific Balance Confidence Scale, and Modified Barthel Index were used to determine the trunk control, balance confidence, and functional independence of activities in daily living. Descriptive statistics and inferential statistics were used. Ethical clearance was obtained from the ERC, Faculty of Medicine, Colombo.

Results: Among 80 participants (mean age = 55.02 ± 8.27 years), 65.0% (n=52) were males and 35.0% (n=28) were females. Most of them, 35.0% (n=28), experienced a severe impairment in trunk control, 67.5% (n=54) experienced low balance confidence, and 37.5% (n=30) were severely dependent in activities of daily living. Significant associations were found between ADL independence and trunk control ($p < 0.001$), as well as balance confidence ($p < 0.001$).

Conclusion: Trunk control and balance confidence are significantly associated with functional independence in activities of daily living among post-stroke patients. Patients with better trunk control and higher balance confidence demonstrate greater functional independence. Improving trunk control and balance confidence should be prioritized in stroke rehabilitation to enhance functional independence.

Beyond the Clinic: Developing a Mobile-based AI-Assisted Feedback System for Home-Based Therapeutic Exercise in Musculoskeletal Telerehabilitation

Amarasuriya GN¹, Prabhashana MRM¹, Jayasinghe JMCNB¹, Samarasinghe NS², Logeeshan V¹, Nair SNN³, Ranasinghe DC³, Somarathne P²

¹*Department of Electrical Engineering, Faculty of Engineering, University of Moratuwa, Sri Lanka*

²*School of Computer Science, The University of Sydney, Australia*

³*Centre for Sports and Exercise Medicine, Department of Allied Health Sciences, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and Objectives: Management of chronic musculoskeletal (MSK) conditions requires rehabilitation with therapeutic exercises. Reduced access to a supervising clinician, poor adherence, and incorrect technique lead to poor clinical outcomes. Conventional telerehabilitation partially addresses this, but one-to-one feedback on exercise technique remains non-feasible. This multidisciplinary study develops an AI-based mobile application providing real-time corrective feedback for home-based therapeutic exercise. Initial development data are presented.

Method: Study planned in three phases. Phase 1: Selected small-footprint vision language (AI) models were fine-tuned (LoRA) on a curated subset of the publicly available QEVD dataset (~289,000 clips, 270 classes), refined to 38,000 rehabilitation-relevant videos across 14 exercise classes (60:20:20 train/validation/test split). Output quality was evaluated on the held-out test set against clinician-aligned references using automated evaluation metrics. Phase 2: A clinical study will be conducted on patients with MSK conditions to evaluate the accuracy of the selected AI model's feedback against two clinicians' feedback using QUEST framework. Phase 3: Findings will inform productization for home-based use.

Results: On a held-out test set, the selected model - Mobile-VideoGPT-1.5B achieved BERTScore -0.71, METEOR - 0.57, and ROUGE-L - 0.59, compared to other models, achieved good semantic alignment with clinician-authored feedback.

Conclusion: Initial findings of the development are presented. Publicly available AI Vision Language Model can be trained to deliver clinically grounded corrective feedback for therapeutic exercises. This approach has potential for translation into accessible home-based telerehabilitation tools with clinical study in phase 2. The underlying model-selection and fine-tuning methodology has been peer-reviewed and accepted at IEEE AIoT 2026 and IRAI 2026 conferences.

Development and Face Validation of Mindful Swallowing Training (MST) Intervention for Post-Stroke Dysphagia

Jinadasa K.T.G.¹, Dalpatadu C.², Jayasinghe S.²

¹*Faculty of Graduate Studies, University of Colombo, Sri Lanka*

²*Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and objectives: Post-stroke dysphagia impairs swallowing safety, emotional well-being, social participation, and quality of life. Behavioral interventions prioritize compensatory and rehabilitative strategies, often lacking focus on psychosocial challenges. Emerging evidence indicates mindfulness practices enhance interoceptive awareness, attention regulation, and breathing control, all critical for swallowing. This study aimed to develop and face-validate the newly developed Mindful Swallowing Training (MST) intervention for adults with Post-Stroke Dysphagia (PSD).

Method: A triangulated development approach comprised: (1) a scoping review of mindfulness-based interventions for neurogenic dysphagia; (2) qualitative interviews with mindfulness practitioners; and (3) synthesis of neurophysiological evidence on swallowing and mindfulness. Face and preliminary content validation used a mixed-method expert review with a multidisciplinary panel of 14 participants (9 clinical experts in PSD management and 5 experienced mindfulness practitioners), incorporating Likert-scale ratings and qualitative feedback.

Results: The MST consists of 2 phases: the non-oral phase and the oral phase, addressing optimal positioning, mindful breathing, interoceptive body awareness, acceptance strategies, breath–swallow synchronization, mindful eating and drinking practices, caregiver-supported home practice, and gradual phase progression. Face validation demonstrated good expert agreement on clarity, relevance, and clinical feasibility (I-CVI range: 0.79–1.00). Preliminary content validation showed acceptable agreement for intervention relevance and theoretical alignment with mindfulness principles (S-CVI/Ave=0.85). Feedback indicated refinements needed in instructional clarity and cultural adaptation.

Conclusion: Revisions were made following expert input. Overall, MST integrates neurophysiological and rehabilitative principles within a theoretical framework for PSD. The next phase will involve Delphi validation, followed by feasibility and effectiveness testing.

Evaluating Antinuclear antibody (ANA) patterns among Systemic Lupus Erythematosus (SLE) patients in Sri Lanka

Witharana HPE¹, Malavige GN¹, Atukorala IG², Ranasinghe TND¹, Ranatunga C¹

¹*Department of Immunology and Molecular Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura*

²*University Medical Unit, National Hospital Sri Lanka & Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

Introduction: Systemic Lupus Erythematosus (SLE) is a multi-system chronic inflammatory autoimmune disease with varying degrees of disease severity and organ involvement. This study aims to determine the common Anti-nuclear antibody (ANA) patterns among SLE patients in Sri Lanka and examine the association of ANA patterns with the disease severity of SLE patients.

Methodology: A cross-sectional study recruited patients with SLE aged above 18 years attending to Rheumatology clinic at National Hospital, Sri Lanka. 43 patients fulfilling 2019 EULAR/ACR classification criteria were recruited and their disease severity was assessed using the Systemic Lupus Erythematosus Disease Activity Score (SLE-DAS). Indirect Immuno Fluorescence (IIF) Assay was performed on all patients. Statistical analyses were performed using Microsoft Excel and R studio version 3.6.

Results: Among 38 ANA positive individuals, 15 (39.4%) showed mixed ANA patterns with maximum two patterns superimposed, while others (n=23; 60.5%) showed direct ANA patterns. The most common ANA patterns were AC-4 (Fine speckled pattern) (n=14, 23.3%) along with AC-1 (Homogenous pattern) (n=17, 28.3%). Among the mixed patterns, AC-1 and AC-4 combination was more prominent (n=4, 26.6%). A statistically significant positive correlation was found between SLE-DAS and the 2019 EULAR/ACR score ($R = 0.43$, $p = 0.005$). As many patients expressed multiple ANA patterns simultaneously and the number of patients corresponding to each individual ANA pattern was relatively low, the ability to correlate each ANA pattern separately with disease severity was limited.

Conclusion: Further studies with larger sample sizes are required to better evaluate the association between ANA patterns and disease severity.

Prevalence and Associations of Neuropsychiatric Manifestations of Systemic Lupus Erythematosus in a Sri Lankan Lupus Cohort

Rathnayake DL¹, Ratnayake RM¹, Wadasinghe KM¹, Gallage C¹, Lafir R², Ariyadurai JN², Atukorala I¹, Weeratunga PN¹, Vidanapathirana MN²

¹*Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

²*National Hospital of Sri Lanka, Colombo, Sri Lanka*

Introduction and Objectives: Neuropsychiatric manifestations of systemic lupus erythematosus (SLE) signify high disease morbidity. Although Asian populations have been speculated to experience more severe disease phenotypes and worse clinical, there is scarce data from the region. This study aims to characterize the prevalence and associations of neuropsychiatric manifestations among SLE patients in a Sri Lankan cohort.

Methods: A retrospective study was conducted using data from the University of Colombo Lupus Cohort (COL-LUPUS). Data was extracted using the cohort registry and analyzed using descriptive statistics and bivariate analyses.

Results: The study population consisted of 111 Sri Lankan patients with SLE. Among them, 47.75% (n=53) experienced neuropsychiatric manifestations. Headache was the most prevalent neuropsychiatric manifestation of the cohort (24.3%, n=27), with other manifestations including cognitive impairment (18.9%, n=21), seizures (11.7%, n=13), depression (11.7%, n=13) and psychosis (9.9%, n=11). Stroke was reported in 9.0% (n=10) of patients. Less frequent manifestations included peripheral neuropathy (3.6%), aseptic meningitis (1.8%), mononeuritis multiplex (1.8%), cranial neuropathy (1.8%) and optic neuritis (1.8%). Lower age at diagnosis of SLE, and Antiphospholipid (aPL) antibody positivity were significantly associated with neuropsychiatric manifestations ($p<0.05$). Conversely, no significant associations were observed with ANA, anti-dsDNA, or hypocomplementemia. There was no significant association between strokes and traditional metabolic risk factors. Furthermore, of the 10 patients who had strokes, only 3 had positive aPL antibodies.

Conclusion: Neuropsychiatric manifestations appear to be common among this cohort of Sri Lankan patients with SLE. Younger age of onset and APL antibody positivity were significantly associated with neuropsychiatric manifestations.

Adverse pregnancy outcomes and associated factors among patients with systemic lupus erythematosus in Sri Lanka

R.M. Ratnayake¹, D.L. Rathnayake¹, C. Gallage¹, K.M. Wadasinghe¹, R. Lafir², J. N. Ariyadurai², I. Atukorala¹, P. N. Weeratunga¹, M. Vidanapathirana²

¹*Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

²*National Hospital of Sri Lanka, Colombo, Sri Lanka*

Introduction and Objectives: Systemic lupus erythematosus (SLE) predominantly affects women of reproductive age and is associated with increased risk of adverse pregnancy outcomes. Data from South Asia is limited. This study evaluated pregnancy outcomes, and associated clinical and serological factors in women with SLE.

Methods: A retrospective study was conducted using data from the University of Colombo Lupus Cohort (COL-LUPUS). Events defined as adverse pregnancy outcomes included fetal loss (miscarriages, intrauterine deaths and therapeutic abortions), fetal growth restriction, preeclampsia and eclampsia. Data on pregnancy outcomes, and clinical and serological parameters were collected and analysed using SPSS version 26. Associations were assessed using independent t-tests and chi-square tests.

Results: Of 111 patients, 94.6% (n=105) were female, and 59.0% (n=62) had at least one pregnancy, accounting for 148 pregnancies. Fetal loss occurred in 29.7% (n=44) pregnancies with 23.64% (n=35) miscarriages, 5.40% (n=8) intrauterine deaths and 0.67% (n=1) therapeutic abortion, while preeclampsia and fetal growth restriction (FGR) occurred in 10.1% (n=15) and 14.9% (n=22), respectively. Biopsy proven lupus nephritis was significantly associated with adverse pregnancy outcomes ($p = 0.016$). Mean age at diagnosis, antiphospholipid antibody and anti-dsDNA positivity, presence of diabetes, hypertension and number of SLE related flares were not associated with adverse pregnancy outcomes ($p > 0.05$).

Conclusion: Adverse pregnancy outcomes are common in women with SLE with miscarriages being the commonest. Renal involvement was found to be significantly associated with adverse pregnancy outcomes.

Clinical and Immunological Characteristics of Systemic Lupus Erythematosus in Sri Lanka: Insights From a Tertiary Care Cohort

Gallage C.¹, Wadasinghe K.M.¹, Rathnayake D.L.¹, Ratnayake R.M.¹, Lafir R.², Ariadurai J. N.², Atukorala I.¹, Weeratunga P.N.¹, Vidanapathirana M.N.²

¹*Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

²*National Hospital of Sri Lanka, Colombo, Sri Lanka*

Introduction and Objectives Systemic lupus erythematosus (SLE) is an autoimmune disease with variable clinical and immunological phenotypes across ethnicities. This study aimed to describe the sociodemographic characteristics, involved organ systems, damage index and immunological profile of Sri Lankan patients with SLE in a tertiary care cohort.

Methods: A retrospective study was conducted using data from the University of Colombo Lupus Cohort (COL-LUPUS). Patients fulfilling European League Against Rheumatism and the American College of Rheumatology (EULAR/ACR) classification criteria were enrolled. Systemic Lupus International Collaborating Clinics/American College of Rheumatology (SLICC/ACR) Damage Index was used to quantify disease organ damage.

Results: 111 patients were enrolled. The cohort was predominantly female (94.6%), with a mean age of 38 years (95% CI: 36–41) and mean disease duration of 14.3 years. The mean age at SLE diagnosis of 24.3 years (95% CI: 22.5–25.98).

At presentation, the most frequently involved organ systems were musculoskeletal (33.3%), renal (18.9%), and cutaneous (18.0%). Over the disease course, renal (62.2%) and neurological (23.4%) systems were the dominant organ systems. Mean duration between SLE diagnosis and dominant system involvement is 3.3 years. Organ damage was identified in 66.7% (n=74).

Immunologically, ANA positivity was recorded in 92.6% (n=88) of tested patients, and anti-dsDNA in 54.3% (n=38) tested. Among further autoantibodies tested, anti-U1RNP was positive in 50% (n=4), anti-Ro in 40% (n=6), anti-Smith and anti-La in 23.1% (n=3).

Conclusion: This tertiary care cohort of Sri Lankan lupus patients consists primarily of young female patients with predominant renal and neurological involvement throughout the disease course

Treatment Patterns and Medication-Related Complications in Systemic Lupus Erythematosus: Data From a Tertiary Care Cohort in Sri Lanka

Gallage C.¹, Wadasinghe K.M.¹, Rathnayake D.L.¹, Ratnayake R.M.¹, Lafir R.², Ariadurai J. N.², Atukorala I.¹, Weeratunga P.N.¹, Vidanapathirana M.N.²

¹Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka

²National Hospital of Sri Lanka, Colombo, Sri Lanka

Introduction and Objectives: This study aimed to describe the treatment patterns and medication-related complications in a Sri Lankan SLE cohort.

Methods: Patients diagnosed with SLE according to European League Against Rheumatism and the American College of Rheumatology (EULAR/ACR) classification criteria that are under active follow-up, were enrolled as part of the ongoing COL – LUPUS cohort

Results: A total of 111 were included. Prednisolone (95.5%, n=106) and hydroxychloroquine (HCQ) (93.7%, n=104) were near-universally used, with mycophenolate mofetil (MMF; 68.5%, n=76), azathioprine (42.3%, n=47), and cyclophosphamide (29.7%, n=33) being common choices for second-line immunosuppressive agents.

Steroid-related complications were common. Of all patients, 75.6% (n=84) had Cushingoid features. Metabolic complications comprised hypertension (49.5%), dyslipidemia (34.2%), and new-onset diabetes mellitus (29.7%); however, regular metabolic screening had been carried out in only 52.3% (n=58) of patients. Ocular complications included cataract (22.5%), glaucoma (4.5%), and HCQ-related maculopathy in 10.6% (n=11) of HCQ-exposed patients. Musculoskeletal complications included osteoporosis/osteopenia (18.0%), fractures (6.3%), and avascular necrosis (6.3%); DEXA scanning had been performed in only 27.9% (n=31) of patients despite near-universal corticosteroid use. Among patients exposed to cyclophosphamide, 18.2% had been evaluated for subfertility and 6% had experienced hemorrhagic cystitis. Azathioprine-related hepatotoxicity was recorded in 8.5% of exposed patients. Infectious complications included COVID-19 (16.2%), pyelonephritis/urosepsis (13.5%), tuberculosis (10.8%), bacterial pneumonia (9.8%) and fungal infections (8.1%).

Conclusion: Prolonged use of immunosuppression, especially steroids appear common among this Sri Lankan cohort of lupus patients. A significant proportion of patients are affected by adverse side-effects related to metabolic, ocular and bone health.

Living with diabetes: mental health burden among diabetic patients followed up at secondary and tertiary care institutions in the district of Kalutara

Talagala IA¹, Anuranga MAK¹, Amarathunge SS¹, Sumanasekara SAYP¹

¹*Department of Public Health and Family Medicine, Faculty of Medicine, University of Moratuwa. Sri Lanka*

Introduction and objectives: Diabetes is a global public health issue associated with both physical and psychological morbidities. Despite its importance, comprehensive local studies related to mental health burden among diabetic patients are scarce. Thus, this study assessed the proportion of depression, anxiety, and their predictors among diabetic patients followed up at all secondary and tertiary care institutions in Kalutara district.

Methods: A descriptive cross-sectional study was conducted among 417 adult diabetic patients followed up at the medical and endocrine clinics at secondary and tertiary care hospitals in Kalutara, selected through a stratified probability proportionate systematic sampling technique, where the stratification was based on the hospital and respective clinics. A self-administered questionnaire was used for data collection including the locally validated Hospital Anxiety and Depression Scale (HADS). Multivariate analysis was done using Logistic regression.

Results: Response rate was 100%. Depression and anxiety were seen among 13.4% (95%CI=10.3-17.1) and 24.7% (95% CI= 20.6-29.1) diabetic patients respectively. Living alone (aOR=2.51; 95% CI=1.08-5.82), low monthly income (<Rs.20,000) (aOR=2.00; 95%CI=1.07-3.73), lack of exercise (aOR=3.60; 95% CI=1.24-10.44), smoking (aOR=3.44; 95%CI=1.26-9.42), and uncontrolled diabetes (aOR=2.22; 95% CI=1.21-4.05) were independent predictors of depression among patients with diabetes. Females (aOR=3.42; 95%CI=1.67-6.98), low monthly income (<Rs.20,000) (aOR=1.74; 95%CI=1.07-2.83), smoking (aOR=22.36; 95%CI=6.78-72.84), and complications of diabetes (aOR=2.51; 95%CI=1.35-4.69) independently influenced anxiety among patients with diabetes.

Conclusion: Depression and anxiety are prevalent among diabetic patients and are associated with certain lifestyle, demographic, socioeconomic and clinical factors. Incorporation of screening for depression and anxiety into the management guidelines of diabetes is recommended.

A Markov Model Analysis of Glycemic Control and Progression to Advanced Complications of Type 2 Diabetes in the Sri Lankan Universal Healthcare System

Muthukuda DT¹, Nimansha JSA¹, Jayawickreme KP², Subasinghe CJ³, Herath JIP¹, Samarasekara TG³, Wijeratne T⁶, Gunawardane IKPS¹, Niriella MA⁴, de Silva T⁵, Adler AI⁷

¹ Sri Jayewardenepura General Hospital, Sri Lanka

² Department of Diabetes and Endocrinology, Royal North Shore Hospital, NSW, Australia

³ Colombo North Teaching Hospital, Ragama, Sri Lanka

⁴ Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka

⁵ Department of Decision Sciences, University of Moratuwa, Sri Lanka

⁶ Lanka Hospitals Corporation PLC, Sri Lanka

⁷ Radcliffe Department of Medicine, University of Oxford, UK

Introduction and Objectives: In low and middle income countries with universal healthcare, including Sri Lanka, there is limited long-term evidence on how glycaemic control influences progression to advanced diabetes complications. Such evidence is essential for clinical prioritisation and for informing economic evaluations. This study modelled glycaemia-specific progression of major diabetes-related complications over 40 years in a Sri Lankan setting.

Method: A deterministic cohort-based Markov model, a mathematical simulation that estimates movement between disease states over time, simulated individuals diagnosed with type 2 diabetes without complications at age 35 over 40 years. Health states included diabetic retinopathy, nephropathy, diabetic foot disease, cardiovascular disease, and death. Transition probabilities were derived from published longitudinal studies and adjusted using incidence data stratified by glycaemic control (HbA1c $\leq 7\%$ vs $>7\%$) to construct separate transition matrices, no individual patient database was analyzed. Deterministic sensitivity analyses ($\pm 50\%$) were conducted on key parameters.

Results: Poor glycaemic control markedly increased progression and mortality across complications. Annual progression from moderate to severe retinopathy was 21.3% under poor control versus 7.3% under good control, with corresponding mortality of 33.1% and 11.4%. In nephropathy, mortality in end-stage renal disease was 20.2% versus 13.2%. In advanced cardiovascular disease, mortality was 27.0% versus 14.5%. Findings remained robust in sensitivity analyses.

Conclusions: The model demonstrates the magnitude of glycaemia-specific disease progression using simulated longitudinal projections based on published evidence, providing Sri Lanka-specific estimates that support clinical risk stratification, economic modelling and health policy planning.

Residual goitre burden and thyroid status twenty-five years after universal salt iodisation in a previously endemic Sri Lankan population

Liyanage VDP¹, Niyas I², Narampanawa S¹, Udupihille J³, Galketiya KB⁴, Dharmapala A¹

¹*Department of Surgery, Faculty of Medicine, University of Peradeniya, Sri Lanka*

²*National Hospital Kandy, Sri Lanka*

³*Department of Radiology, Faculty of Medicine, University of Peradeniya, Sri Lanka*

⁴*Faculty of Medicine, Nursing and Health Sciences, Monash University, Mildura, Victoria, Australia*

Introduction and Objectives: Goitre was historically endemic in Sri Lanka due to iodine deficiency. Following the implementation of Universal Salt Iodisation (USI), iodine deficiency has largely been eliminated; however, comprehensive data on the evolving clinical spectrum of goitre in the post-iodisation era remain limited. This study evaluated the demographic profile, thyroid functional status, and ultrasonographic characteristics of patients presenting with goitre 25 years after USI implementation.

Method: A retrospective cohort study was conducted among 379 patients presenting with goitre at Teaching Hospital Peradeniya between 2018 and 2020. Demographic, biochemical, and ultrasonographic data were extracted from clinical records. Thyroid morphology was categorised as diffuse goitre, solitary thyroid nodule, or multinodular goitre (MNG). Statistical analysis was performed using chi-square tests, odds ratios, and independent sample t-tests.

Results: The mean age was 47.74 years, with peak incidence in the 40–49-year age group. Females accounted for 96% of patients, and most patients were euthyroid (69.4%). MNG was the predominant thyroid morphology (67.3%) and was associated with increasing age ($p<0.001$). Suspicious ultrasonographic features for malignancy were identified in 34.0% of patients and were significantly associated with MNG ($p=0.001$). Sonographic thyroiditis was present in 18.2% and showed a strong association with diffuse goitre ($p<0.001$).

Conclusions: Goitre in Sri Lanka is currently characterised by predominant multinodular disease, functional heterogeneity, and features suggestive of autoimmune thyroid disease. These findings suggest an epidemiological transition in thyroid disease patterns following long-term iodine sufficiency and highlight the need for continued surveillance and risk-stratified evaluation in the post-iodisation era.

Maternal behavioral risk factors and glycemic status in pregnancy: A prospective cohort study in two tertiary care hospitals in Western Sri Lanka.

Sasikanth T.¹, Katulanda P.¹ Wickramasinghe W.K.V.K.¹, Fernando D.R.¹, Kaluarachchi A.², Dodampahala S.H.², Jayawardena D.B.I.A.², Ranaweera A.K.P.², Rishard M.R.M.², Jayasundara C.², Piyadigama I.², Katulanda G.W.³, Kadotgajan T.⁴, Lanerolle S.⁴.

¹*Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka.*

²*Department of obstetrics and gynecology, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka.*

³*National Hospital of Sri Lanka, Colombo, Sri Lanka.*

⁴*Castle Street Hospital for Women, Colombo, Sri Lanka.*

Introduction: Maternal lifestyle affects glycemic status in pregnancy; differences across glycemic categories may reveal opportunities for intervention.

Objective: To examine association between dietary sugar intake, concern about refined sugar, physical activity, and glycemic status in pregnancy.

Methods: A prospective cohort of 1200 pregnant women at De Soysa and Castle Street Hospitals (2024-2025) was conducted. Participants were categorized as normoglycemic, gestational diabetes mellitus (GDM), or pre-existing diabetes per American Diabetes Association criteria. Sugary snack and drink intake (previous day) was assessed at booking and during pregnancy. Concern regarding refined sugar intake was recorded on an ordinal scale. Carbohydrate intake was evaluated using a plate-model assessment of the previous day meals; high intake defined as $\geq 50\%$ of the plate consisting of carbohydrate in ≥ 2 meals. Physical activity was assessed using the International Physical Activity Questionnaire (IPAQ).

Results: Pre-existing diabetes was identified in 3.25% and newly diagnosed diabetes 2.17% (combined 5.42%) while GDM occurred in 18.26%. Sugary snack and drink intake were significantly associated with glycemic status ($\chi^2=12.73$, $p=0.013$ and $\chi^2=20.67$, $p>0.001$, respectively), with a higher proportion of pre-existing diabetes patients reporting no intake of snacks(60.0%) and drinks(49.2%) compared to normoglycemic and GDM groups. Higher concern about refined sugar intake was significantly associated with lower consumption($p<0.001$). High carbohydrate intake differed significantly by glycemic status ($p<0.001$), with lower prevalence among women with pre-existing diabetes (80.6%) compared to normoglycemic (96.2%) and GDM (96.8%) groups. All participants were inactive or minimally active, with no association between activity and glycemic status.

Conclusion: Dietary sugar behaviors, but not physical activity, were significantly associated with glycemic status. Early dietary counselling may improve pregnancy outcomes.

External Migration Intentions Among Medical Officers in Hospitals Under the Regional Director of Health Services (RDHS) Colombo: Prevalence, Associated Factors, and Policy Implications

Akmeemana AKDN¹, De Silva LSD¹

Ministry of Health, Sri Lanka¹

Introduction and Objectives:

Medical professional migration has intensified in Sri Lanka, threatening the public health system through loss of skilled personnel. Systematic evidence on migration intentions among doctors in district-level hospitals remains limited. This study determined the prevalence of external migration intention among medical officers in RDHS Colombo hospitals and associated factors using a composite measure of active migration preparation.

Methods:

A cross-sectional study was conducted among medical officers in RDHS Colombo hospitals. Using stratified random sampling, 210 of 224 participants completed questionnaires (response rate 93.8%). Ethical approval was obtained from ERC/PGIM. Migration intention was assessed using a composite score of cognitive, behavioural, and preparatory indicators. Data were analyzed using multivariable logistic regression ($p < 0.05$).

Results:

Migration intention prevalence was 18.5% ($n=39$). Institutional governance factors outweighed economic considerations. Political/administrative interference in career progression showed the strongest association (AOR=51.7; 95% CI:12.3–216.4), with wide confidence intervals. Other predictors included job dissatisfaction (AOR=23.2; 95% CI:5.5–97.4), postgraduate qualifications (AOR=18.2; 95% CI:4.1–80.4), foreign graduation (AOR=10.2; 95% CI:3.2–32.5), age < 35 years (AOR=6.7; 95% CI:2.1–20.9), and feeling undervalued (AOR=5.5; 95% CI:1.2–24.7). Despite frequent reporting of workload (77.6%) and economic uncertainty (75.7%), institutional fairness was more predictive of migration intent.

Conclusions:

Migration intention appears to be more strongly driven by dissatisfaction with institutional governance than economic factors. Financial retention strategies alone may be insufficient. Addressing governance transparency, fair career progression, and supportive workplace environments is essential to retain skilled medical officers and prevent continued workforce.

Productivity losses dominate the lifetime economic burden of type 2 diabetes in Sri Lanka's universal healthcare system

Muthukuda DT¹, Nimansha JSA¹, Jayawickreme KP², Subasinghe CJ³, Herath JIP¹, Samarasekara TG³, Wijeratne T⁶, Gunawardane IKPS¹, Niriella MA⁴, de Silva T⁵, Adler AI⁷

¹ Sri Jayewardenepura General Hospital, Sri Lanka

² Department of Diabetes and Endocrinology, Royal North Shore Hospital, NSW, Australia

³ Colombo North Teaching Hospital, Ragama, Sri Lanka

⁴ Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka

⁵ Department of Decision Sciences, University of Moratuwa, Sri Lanka

⁶ Lanka Hospitals Corporation PLC, Sri Lanka

⁷ Radcliffe Department of Medicine, University of Oxford, UK

Introduction and Objectives: Type 2 diabetes imposes a growing economic burden on low- and middle-income countries with universal healthcare. While direct costs are commonly reported, indirect costs reflecting productivity losses are rarely quantified. This study estimated lifetime direct and indirect costs in Sri Lanka and assessed the contribution of productivity losses across glycemic control levels.

Method: A deterministic cohort-based Markov model was conducted for the Sri Lankan healthcare setting, simulating individuals diagnosed at age 35 over 2025–2065, including retinopathy, nephropathy, diabetic foot disease, cardiovascular disease, and death. Glycaemic control was stratified by HbA1c ($\leq 7\%$ vs $>7\%$). Direct costs were estimated using private-sector proxies validated by specialist consultation. Indirect costs were calculated using the human capital approach based on national wage data for morbidity and premature mortality (≤ 65 years). Costs were discounted at 3% and expressed in 2025 Sri Lankan Rupees and USD. Deterministic ($\pm 50\%$) and probabilistic (1,000 simulations) sensitivity analyses were conducted.

Results: Direct costs were highest in well-controlled diabetes without complications (LKR 4.38M) and lowest in poorly controlled diabetes with complications (LKR 2.14M), reflecting survival differences. Including productivity losses reversed this pattern: total costs increased to LKR 7.20M under poor control versus LKR 4.52M under good control, representing a 37.2% reduction. Sensitivity analyses did not alter cost rankings. Mean lifetime cost was USD 23,806 (95% interval USD 17,893–29,608).

Conclusions: Productivity losses are a major component of lifetime diabetes costs in Sri Lanka. Although good glycemic control increases direct costs through longer survival, it reduces overall societal costs, supporting investment in national diabetes control strategies.

Perceptions, Barriers and Facilitators of Well Women Clinic Attendance among Women Aged 35 Years and 45 Years in the Beliatta MOH Area; A Mixed Method Study

Hansini KHC¹, Athauda LK²

¹*Faculty of Medicine, University of Kelaniya*

²*Department of Public Health, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Well Woman Clinics (WWCs) target female cohorts of 35 and 45 years for NCD prevention but are poorly attended. This study aimed to assess the perceptions, barriers, and facilitators of WWC attendance among women aged 35 years and 45 years in the Beliatta MOH area.

Methods: A mixed methods study was conducted among 35- and 45-year-old women in 10 Public Health Midwife areas in Beliatta. An interviewer administered questionnaire and semi-structured interviews were conducted. Descriptive and inferential statistics were analyzed on SPSS 22.0, and inductive content analysis was conducted on qualitative data.

Results: The sample of 286 comprised 142 (49.7%) 35-year-old women and 144 (50.3%) 45-year-old women. WWC attendance was less among 35-year-olds 62.0%(n=88), compared to 83.3%(n=120) among 45-year-olds. Both cohorts perceived WWCs as beneficial (n=280, 98%) for early cancer detection, trustworthy health care support, and regular preventive checkups. Both cohorts reported transport issues (n=251, 88%), inconvenient clinic hours (n=230, 80%), and cultural issues such as fear of male doctors (n=225, 79%), with reluctance for Pap smears (n=112, 39%) and breast examinations (n=207, 72%). The 45-year cohort is more likely to attend the WWCs (p<0.001). Ten qualitative interviews found that PHM-led awareness, family support, peer influence, and personal priorities facilitated WWC attendance, while fear of embarrassment and pain, along with inconveniences at clinics and health care provider factors, acted as barriers to access services.

Conclusion: Despite perceived benefits and facilitators, WWC attendance remains suboptimal, especially among younger women. To promote early detection and prevention of disease, WWC attendance should be promoted among younger women.

Knowledge and Practices of Dementia Care among Healthcare Assistants and Caregivers at Colombo South Teaching Hospital, Sri Lanka

Prof. F. A. D. S. Silva, K. A. H. Madhuwanthi

Introduction and Objectives: Dementia is a growing global public health concern especially in rapidly-aging population such as Sri Lanka. Healthcare assistants (HCA) and caregivers (CG) play a crucial role in supporting patients with dementia, yet inadequate knowledge and limited formal training may adversely affect the quality of care. This study aimed to assess the knowledge, caregiving practices, and associated factors related to dementia care among HCA-CG.

Method: A descriptive cross-sectional study was conducted among 256 HCA-CG at Colombo South Teaching Hospital. Data were collected using a pre-tested, interviewer-administered questionnaire assessing socio-demographic characteristics, dementia care knowledge, caregiving practices, and associated factors. Data were analyzed using SPSS version 25 with descriptive and inferential statistics.

Results: The majority of participants were female (57.4%), and 69.5% had previous experience in dementia care. Poor knowledge regarding dementia care was observed in 56.3% of participants, while only 7.0% demonstrated good knowledge. Moderate caregiving practices were reported by 52.9%, whereas 32.9% demonstrated good practices. Only 16.4% had received formal dementia care training. Significant associations were observed between dementia care knowledge and factors such as education level, training exposure, and workplace support ($p < 0.05$). Commonly identified challenges included inadequate training opportunities, caregiver stress, and limited institutional resources.

Conclusions: Substantial gaps exist in dementia-related knowledge and caregiving practices among HCACG at Colombo South Teaching Hospital. Strengthening structured training programs, improving institutional support, and promoting patient-centered dementia care strategies are essential to enhance the quality of dementia care and caregiver competence in Sri Lanka.

Job satisfaction and associated factors among nursing officers in secondary and tertiary curative care institutions in the North Central Province

Madushan PMJ¹, Liyanaarachchi LKSR¹, Manasha DHL¹, Madhuwanthi UAK¹, Maduwantha HDA¹, Manukula KBVAP¹, Wickramasinghe ND¹

¹*Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

Introduction and objectives: Evidence on job satisfaction among nursing officers in Sri Lanka remains limited, particularly regarding workplace satisfaction factors. Understanding these factors is crucial for improving staff wellbeing and healthcare service delivery quality. This study aimed to determine job satisfaction levels and associated factors among nursing officers in secondary and tertiary government curative care institutions in North Central Province (NCP).

Methods: A cross-sectional analytical study was conducted across 13 secondary and tertiary curative care institutions in NCP. All nursing officers working in Medical, Surgical, Paediatric, and Gynecological/Obstetrics wards completed pre-tested self-administered questionnaires (available in three languages). Data were analyzed using SPSS 23.0. Job satisfaction was categorized based on median total score of 75. Binary logistic regression identified factors independently associated with job satisfaction, including variables with statistical significance at $p < 0.05$ from bivariate analysis.

Results: Of 534 eligible nursing officers, 250 (46.8%) participated. Most were females ($n=241$, 96.4%) with mean (SD) age 37.2 (8.1) years. Job satisfaction scores ranged 36-120 with mean 76.28 (SD=4.3) and median 75 (IQR=19). Nursing officers who perceived workplace safety as adequate (AOR=2.8, 95% CI: 1.4–5.7; $p=0.004$) and were satisfied with overtime payment (AOR=2.3, 95% CI: 1.2–4.4; $p=0.008$) were more likely to have high job satisfaction compared to their counterparts. Nursing officers with a longer commuting distance (AOR=0.4, 95% CI: 0.2–0.8; $p=0.009$) were less likely to have high job satisfaction.

Conclusion: Job satisfaction among nursing officers was significantly associated with workplace, organizational, and social factors, suggesting the need for strengthened supportive workplace environments.

Is Sri Lanka using Tobacco Taxation as an Effective Tobacco Control Strategy?

Abeyratne EHS¹, Perera NCS¹, Asantha WAJB¹, Dineshkumar P¹, Nilaweera AI^{1,2,3}, Perera KMN^{1,4}, Rajasuriya MC^{1,5}, Shivam Kapoor⁶

¹ Center for combating tobacco

² Postgraduate Institute of Medicine, University of Colombo

³ Department of Allied Health Sciences, Faculty of Medicine, University of Colombo ⁴

Department of Public Health, Faculty of Medicine, University of Kelaniya ⁵Riverland General Hospital, Berri SA, Australia

⁶STOP, Vital Strategies

Introduction and Objectives : Raising tobacco tax is the most effective strategy recommended by the Framework Convention on Tobacco Control. However, tobacco industry interference (TII) frequently undermines this strategy. This study aimed to examine the patterns of changes of excise tax and pricing of cigarettes to identify implementation gaps and TII.

Methods : A desk review was conducted using reports of state and non-state institutions. A data extraction sheet was used to extract data from documents identified using keyword search and stakeholder consultation. Descriptive statistics were used to assess trends in excise tax and retail prices of the most commonly sold cigarette brand (2008–2025).

Results: Excise taxes showed an overall upward trend across all cigarette-length categories, with lower increase for cheaper cigarettes (<60mm). The excise tax on the cheapest cigarettes decreased in 2021. The above-84mm category consistently recorded the highest excise tax, while the below-60mm category maintained the lowest. No excise tax revisions were reported in 2017, 2020, and 2022. In 2015 and 2018, excise tax increases were limited to the 72–84mm and above-84mm categories.

In 14 out of 15 years with excise tax increased, cigarette price increases exceeded the tax increases except in 2014, in which, the retail price increase was lower. Despite no excise tax increase in 2022, the retail price increased by LKR 10.00.

Conclusion: Excise tax increases were sub-optimal, allowing the tobacco industry to increase the retail price beyond the tax increase, benefiting the industry and reducing the impact of tobacco taxation.

Effect of a mindfulness-based quality improvement intervention on quality of care - Case study in District General Hospital Ampara Sri Lanka

Rajapaksa-Hewageegana Neelamani S¹, Chandrasena APRS.², Withanage DRM², Dissanayaka DMS², Gunawardena Asela³

¹Post Graduate institute of Medicine

²Ampara District General Hospital; ³ Ministry of Health

Introduction: Burnout, poor communication, and interpersonal conflict among healthcare staff adversely affect patient safety and experience. Addressing these human factors is a key priority in quality improvement initiatives.

Objectives: To evaluate the impact of a mindfulness-based quality improvement (QI) intervention on healthcare worker wellbeing and patient reported quality of care.

Design: A Mixed Method interventional study with Pre-post evaluation with paired analysis.

Setting: District General Hospital, Ampara, Sri Lanka.

Participants: 100 healthcare staff and 100 patients.

Methodology: Self-administered questionnaire delivered to all staff covering all shifts. Collected after 48 hrs. First handed 100 taken for present analysis. Exit interviews with interviewer administered questionnaires on continuous days till sample of 100 completed.

Intervention: Structured mindfulness training integrated into routine clinical practice. Residential training, Workshops, Daily practice, Workplace based reinforcement. Practical tools Eg Mind jar

Results: High stress reduced from 68% to 32% ($\chi^2=25.9$, $p<0.001$). Communication improved from 54% to 84% ($\chi^2=18.2$, $p<0.001$), teamwork from 48% to 80% ($\chi^2=20.0$, $p<0.001$), and emotional regulation from 46% to 78% ($\chi^2=19.3$, $p<0.001$).

Patient-reported respect increased from 62% to 90% ($\chi^2=18.5$, $p<0.001$), communication from 58% to 88% ($\chi^2=20.5$, $p<0.001$), and satisfaction from 60% to 92% ($\chi^2=24.0$, $p<0.001$).

Daily mindfulness practice (49%) showed stronger associations with improved outcomes.

Conclusions: Mindfulness-based QI interventions significantly improve both staff wellbeing and patient-perceived quality of care. The model is feasible, low-cost, and scalable in resource-limited settings.

Limitations: Single-center study. No control group. Self-reported measures may introduce bias. Ceiling effects with mean scores ≥ 3.5

Precision vs. Price: Is Robotic Surgery a Cost-Effective Investment for Sri Lanka's Public Health System?

Samarakoon M A S C¹ Mallawarachchi K P¹ Sashikumar T¹

¹*Ministry of Health*

The introduction of robotic-assisted surgery into publicly funded health systems presents both opportunities and challenges, particularly in lower middle-income countries pursuing Universal Health Coverage (UHC). This study evaluates the clinical relevance, feasibility, and economic implications of implementing robotic surgery at the National Hospital of Sri Lanka (NHSL).

A mixed-methods Health Technology Assessment (HTA) framework was applied, combining document review, expert consultations, and comparative analysis of open, laparoscopic, and robotic surgical modalities. Findings indicate that robotic surgery offers clinical advantages in complex procedures, particularly in oncological and urological cases, through enhanced precision, reduced blood loss, and fewer complications.

Economic evaluation was a central component. A time-driven activity-based costing approach demonstrated high initial capital investment (USD 0.6–3 million) and significant recurrent costs, including maintenance and consumables. Per-procedure costs remain higher than conventional methods. However, cost-effectiveness improves when indirect benefits are considered, such as reduced complication rates, shorter hospital stays, decreased ICU utilization, and faster return to productivity.

At high-volume centers like NHSL, economies of scale enhance financial viability. Budget impact analysis suggests sustainability depends on procedural volume, appropriate case selection, and phased implementation. Additionally, robotic surgery strengthens surgical training capacity and promotes equitable access to advanced care within the public sector.

In conclusion, despite high upfront costs, robotic surgery can be a cost-effective long-term investment when strategically implemented under an HTA-guided framework aligned with UHC goals.

Indoor fine particulate matter exposure and maternal lung oscillometry: Preliminary findings from a multivariable analysis

Karunarathne CB^{1,2}, Jayasinghe JMDC^{1,2}, Kariyawasam KHAY^{1,3}, Thilakarathna HMCRK^{3,4}, Priyanga P¹, Manomi KAN¹, Madusshica R¹, Kumarasiri OKDVT⁴, Rishadha MRF⁴, Kumaranathunga PND⁴, Wijayasinghe WADHM⁴, Chandrasekara CMJC⁴, Dalpathadu KPSY², Fernando LRU², Bowatte G⁵, Madegedara D², Goonewardena CSE¹, Lin C⁶, Schwarze J⁷, Yasaratne D⁴, Wimalasekera SW¹

¹*Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka*

²*Faculty of Medicine, Wayamba University of Sri Lanka, Kuliyapitiya, Sri Lanka*

³*Faculty of Nursing, KIU, Battaramulla, Sri Lanka*

⁴*Faculty of Medicine, University of Peradeniya, Sri Lanka*

⁵*Faculty of Allied Health Sciences, University of Peradeniya, Sri Lanka*

⁶*Usher Institute, University of Edinburgh, UK*

⁷*Child Life and Health, Centre for Inflammation Research, Institute for Regeneration and Repair, University of Edinburgh, UK*

Introduction and Objectives: Indoor particulate matter (PM_{2.5}) is a potential hazard for maternal respiratory impairment. We aimed to evaluate the independent effect of cumulative indoor PM_{2.5} exposure on maternal airway mechanics, assessed via lung oscillometry (FOT), while strictly controlling for geographical and anthropometric confounders.

Methods: Consented pregnant women residing in Colombo and Kandy districts underwent FOT. We applied multivariable linear regression with Huber-White standard errors to model airway resistance (central: R19, peripheral: R5-R19) and reactance (AX, Fres, X5) against cumulative indoor PM_{2.5}. Covariates included maternal height, weight, residential district, and household income category.

Results: While unadjusted analyses suggested increased PM_{2.5} impaired lung function, multivariable adjustment eliminated this effect across all FOT parameters ($p > 0.200$). R5-R19 was significantly driven by geography (Kandy residency: $\beta = 0.227$, 95% CI: 0.108 to 0.347, $p < 0.001$) and maternal weight ($p = 0.029$). Conversely, R19 was unaffected by geography and was solely determined by anthropometry, correlating inversely with height ($\beta = -0.007$, $p = 0.039$) and positively with weight ($p = 0.006$). Peripheral elasticity (X5) improved significantly with height ($p = 0.013$). Reactance area (AX) and resonant frequency (Fres) remained largely unaffected by these baseline variations.

Conclusions: Bivariate associations between PM_{2.5} and maternal airway mechanics were entirely confounded by baseline characteristics. Central and peripheral airway mechanics are distinctly driven by maternal anthropometry and geographical location. Further longitudinal evaluation with a larger cohort is required to definitively isolate the true chronic respiratory effects of indoor PM_{2.5} from these dominant baseline physiological and geographical confounders.

Understanding Hereditary Angioedema in Sri Lanka: Diagnostic Gaps, Disease Burden, and Quality of Life Impact

Amarasekara UPK¹, Ranasinghe TND¹, Aberathna AMIS¹, Ariyaratne MHJD, Chathurangika P H¹, Jayamali J¹, Danasekara DRSR¹ Malavige GN¹, Jeewandara JMKC¹

¹*Institute of Allergology and Immunology, University of Sri Jayewardenepura, Sri Lanka*

Introduction: Hereditary angioedema (HAE) is a rare autosomal dominant disorder characterized by recurrent episodes of non-pruritic angioedema and is associated with considerable morbidity and impaired quality of life. Delayed diagnosis remains a major challenge, particularly in low-resource settings where access to diagnostic testing is limited.

Method: Since January 2025, consecutive patients presenting with recurrent angioedema to the Allergy Clinic of the Institute of Allergology and Immunology, Sri Lanka, were prospectively evaluated for HAE using clinical assessment and complement studies. HAE subtypes were confirmed using serum C4 and C1-inhibitor (C1-INH) antigen levels. Type I HAE was defined by low C4 and reduced C1-INH antigen levels, while Type II HAE was defined by low C4 with normal or elevated C1-INH antigen levels. Following confirmation of index cases, first-degree relatives from consenting families underwent cascade screening using symptom assessment and laboratory testing. Disease burden and control were assessed using the Angioedema Quality of Life Questionnaire (AE-QoL) and Angioedema Control Test (AECT), respectively. Treatment status at the time of assessment was documented.

Results: Of 36 patients evaluated for recurrent angioedema, 17 (47.2%) were diagnosed with HAE, including 8 (47.1%) with Type I HAE and 9 (52.9%) with Type II HAE. The cohort was predominantly female (54.5%) with a median age of 35 years (range 9-74 years). The most common clinical presentation was combined facial and limb swelling (66.7%). Four patients (22.2%) required hospitalization during the course of their disease, although none required intubation or laparotomy. Cascade screening was undertaken in 08 families involving 58 eligible relatives, of whom 39 (67.2%) consented to evaluation. 17 relatives (43.6%) reported suggestive symptoms and 09 individuals, including one previously asymptomatic relative, were newly diagnosed with HAE, yielding a diagnostic rate of 23.1% among screened relatives. The mean AE-QoL score was 18.88 (SD 12.57). Among symptomatic patients, the mean AECT score was 14.1, with 77.8% achieving scores consistent with well-controlled disease at the time of assessment.

Conclusion: HAE imposes a considerable clinical and familial burden among affected individuals in Sri Lanka. The substantial proportion of newly identified cases through cascade screening supports the potential value of family-based diagnostic strategies in settings where underdiagnosis is common. Although many patients demonstrated satisfactory disease control at the time of assessment, these findings reflect a cross-sectional observation and should be interpreted in the context of treatment status and access to care. Improved awareness, earlier diagnosis, and systematic family screening may contribute to better long-term outcomes in patients with HAE.

Proportions and characteristics of clinical trials related to behavioral interventions registered in International Clinical Trial Registry Platform (ICTRP) between 2020 to 2024.

Madhuwanthi MS¹, Shamini Prathapan^{2,4}, De Abrew A^{3,4}

¹ *Department of Pharmacy and Pharmaceutical Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura, Sri Lanka*

² *Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

³ *Department of Medical Education, Faculty of Medicine, University of Colombo, Sri Lanka*

⁴ *Sri Lanka Clinical Trials Registry*

Background: Behavioral interventions are important for prevention and management of health conditions and their representation underexplored. This study provides a large-scale systematic overview of behavioral interventions trials.

Objectives: To identify the proportion of trials related to behavioral interventions registered in ICTRP database between 2020 to 2024 and to describe the intervention types, socio- demographic characteristics, protocol related characteristics, behavioral factors, and outcomes.

Method: A descriptive, retrospective, longitudinal study was conducted using secondary data from ICTRP database. After searching, manual screening, eligible trials were extracted, deduplicated trials were summarized into Microsoft excel sheet and analyzed using descriptive statistics and Chi-square tests to examine associations between demographic and methodological variables.

Results: Among of 422,374 registered trials, 13,414 (3.18%) were behavioral related trials with an increased trend from 2.65% in 2020 to 3.58% in 2023. Lifestyle modification (21.78%), health education (21.53%), and cognitive behavioral therapies (15.05%) were predominant. Most trials recruited participants over broad age ranges (68.97%) and both sexes (72.18%). Significant associations were identified between intervention type and sex, age, and outcomes ($p < 0.001$). Geographic distributions were expressed in Western Pacific (28.94%) and American (25.82%) regions while Africa contributed to only 2.93%. Academic institutions sponsored 72.09% of trials. Mental, and behavioral disorders were frequently targeted conditions with stress and mental health (30.53%) as leading focus. Randomized controlled trials predominated, reporting gaps in masking and study arms.

Conclusion: Behavioral intervention trials represented a modest but growing proportion in health management. The adding of digital behavioral interventions (9.79%) showed ongoing technological transformation for expansion.

Inflammatory Haematological Ratios for Early Differentiation of Bacterial and Viral Infections in Hospitalised Febrile Patients

Jayasekera MMPT¹, Lamabadusuriya DA¹, Munasinghe JM¹, Perera DN¹, De Silva R¹, De Silva NL¹, Jayasena H¹, Nakkawita D², Somaratne I², Silva T³, Goonesekara C³, Premaratne P², De Silva AD², Abeyagoonawardena H¹, Edirisinghe EMDT⁴, Herath G, Basnayaka BMITS¹, Wijesinghe RANK¹.

¹*Department of Medicine, Faculty of Medicine, General Sir John Kotelawala Defence University*

²*Department of Paraclinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University*

³*Department of Preclinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University*

⁴*University Hospital, Kotelawala Defence University.*

Introduction and Objectives: Febrile patients are often undiagnosed at admission, complicating early clinical decision-making. Rapid differentiation between bacterial and viral infections is essential to guide appropriate management. Inflammatory haematological ratios derived from routine complete blood counts—neutrophil–lymphocyte ratio (NLR), monocyte–lymphocyte ratio (MLR), and platelet–lymphocyte ratio (PLR)—may serve as simple, cost-effective early markers prior to definitive diagnosis.

Methodology: A cross-sectional analytical study was conducted among 100 febrile patients. Demographic and clinical data were collected, and day-four complete blood count parameters were used to calculate NLR, MLR, and PLR. Patients were categorized as bacterial or viral based on clinical diagnosis. Statistical analysis was performed using SPSS, with one-way ANOVA used to compare groups; $p < 0.05$ was considered significant.

Results: The mean age was 40.5 ± 17.7 years, with a slight female predominance (52%). Viral infections accounted for 68% and bacterial infections 31%. NLR, MLR, and PLR differed significantly between groups ($p < 0.001$). NLR and MLR were higher in bacterial infections (6.90 ± 4.39 and 0.51 ± 0.33) compared to viral infections (2.54 ± 2.37 and 0.32 ± 0.27). In contrast, PLR was higher in viral infections (172.98 ± 54.43 vs 151.02 ± 92.26). Among viral subtypes, only PLR showed a significant difference ($p = 0.005$).

Conclusion: NLR and MLR are elevated in bacterial infections, while PLR is higher in viral infections. These accessible biomarkers can aid early differentiation and support timely, targeted management, particularly in resource-limited settings.

Awareness, Utilisation, and Associated Factors of Mobile Health Technologies Among Master of Business Administration Readers at the University of Sri Jayewardenepura

Samarakoon ASKNWMRTA¹, Ravishangar K¹, Samaranayake OVJT¹, Samodi APS¹, Mahanama LPKSM²

¹*Faculty of Medicine, University of Colombo, Sri Lanka.*

²*Postgraduate Institute of Medicine, University of Colombo, Sri Lanka.*

Introduction: Mobile health (mHealth) technologies are increasingly used worldwide for preventive healthcare and non-communicable disease management. This study assessed awareness, utilisation, and associated factors of mHealth technologies among Master of Business Administration readers at the University of Sri Jayewardenepura.

Methods: A descriptive cross-sectional study was conducted using convenience sampling. A total of 168 participants were included (response rate: 95.6%). Data were collected using a structured self-administered questionnaire. Awareness was defined as having heard of mHealth applications and/or smart health devices, while utilisation was defined as current use of mHealth applications and/or devices for health-related purposes. Descriptive statistics, chi-square tests, and Fisher's exact tests were used for analysis ($p < 0.05$).

Results: Awareness of mHealth technologies was 95.2%. Personal research was the most common source of information, while recommendations from healthcare professionals were minimal. The majority (54.2%) were currently using mHealth technologies. Automatic tracking and manual input were the most commonly utilised features among users. Only 12.1% shared data with healthcare professionals. Overall, 53.0% were likely to recommend mHealth technologies. Factors significantly associated with mHealth utilisation included younger age ($p = 0.023$), engineering/technology-related employment ($p = 0.018$), higher self-rated socioeconomic status ($p = 0.025$), manual health tracking ($p = 0.001$), and iOS use ($p = 0.003$).

Conclusions: Although awareness of mHealth technologies was high, utilisation remained moderate and largely self-driven, with limited involvement of healthcare professionals. Use was primarily focused on personal health monitoring. Positive attitudes towards mHealth indicate potential for future expansion, particularly in supporting lifestyle modification and disease prevention. Further studies in broader populations are recommended.

Palliative care needs among patients with Chronic Heart Failure in Western Province, Sri Lanka: A neglected area

Dhanasinghe CN¹, Arambepola C²

¹*Epidemiology unit, Ministry of Health, Sri Lanka*

²*Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka*

Background and Objective: Chronic Heart Failure (CHF) is a life-threatening condition with substantial physical and psychosocial burden on patients and their caregivers. Despite global recommendations to integrate palliative care into CHF management, services in Sri Lanka remain largely focused on oncology. Hence, this study aimed to describe the palliative care needs of patients with CHF to inform evidence-based programme development for CHF patients.

Methods: A cross-sectional study was conducted among 525 patients diagnosed with CHF attending 35 outpatient clinics of nine secondary and tertiary care hospitals in the Western Province. The palliative care needs were assessed using the translated and validated IPOS-S tool administered by trained interviewers. The prevalence of overall and domain-specific palliative care needs was described using percentages.

Results: Among the 525 patients recruited (response rate: 100%), 16% (n=84) of patients with CHF had palliative care needs, with the highest need in the emotional domain (20.2%; n=106), followed by physical (15.4%; n=81) and communication-social (11.6%; n=61) domains. The most commonly observed unmet needs in the physical domain were poor mobility, shortness of breath and weakness, each reported by more than 70% of patients. Lack of peace (80%; n=421) and family anxiety (56%; n=295) were the main emotional concerns, while difficulty in finding solutions to practical problems (69%; n=363) was the most frequently reported issue within the communication & social subscale.

Conclusions: Although only one-sixth of patients with CHF met the criteria for overall palliative care needs, considerable unmet emotional, physical, and psychosocial concerns were identified, highlighting the need to develop and integrate a disease-specific palliative care package into routine CHF management.

Availability, utilization and barriers of Cardiac rehabilitation in Sri Lanka: A nation-wide audit

Samarakoon DC¹, Abayawickrama VG², Seneviratne N², Pathirana A²

¹Rheumatology and Rehabilitation Hospital, Ragama, Sri Lanka, ²National Hospital Colombo, Sri Lanka

Introduction: Cardiac rehabilitation (CR) is significantly underutilized in Southeast Asia despite being recognized as a cost-effective intervention. This is the pioneering audit conducted for CR services in Sri Lanka.

Objectives - To evaluate the availability, utilization and barriers to access CR services in Sri Lanka.

Methods - We surveyed all nine state-sector CR centres in Sri Lanka using a structured data form and retrieved self-reported data from the coordinating officer of each centre. The audit extended from 2022 to 2024 and assessed the distribution, format of the sessions, patient volume, core services offered, drop-out rates, staffing gaps, adequacy of facilities and equipment and centre-specific challenges.

Results - The nine CR centers spanned across eight districts, seventeen districts in Sri Lanka including the most populous Gampaha district lacked any designated CR center. Badulla center had the highest yearly patient enrollment rate (600 per year). All CR centres were supervised by a medical officer. Seven centres (77.8%) had the supervision of a cardiologist. Only 5 centres had a designated space for CR, and majority lacked equipment for physical exercises. Centres mainly provided phase III care. The mean session dose was 19.44 hours. Average dropout rate from CR programmes was 26% per year.

Conclusion - Despite the challenges, all Sri Lankan centres provided CR services aligning with international core standards. Expanding the CR services by implementing satellite programs and campaigns to improve patient knowledge, introducing capacity building workshops for healthcare workers, could enhance the accessibility and effectiveness of CR services.

Metabolic Syndrome in Young Healthcare Workers: A Hidden Cardiometabolic Risk in a Sri Lankan Tertiary Care Setting

Thushan Nadeera¹, Layan Rasanjula², Nuwan Darshana³, Aruna de Silva⁴

¹*Department of Nursing, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka*

²*KIU Campus, Koswatta, Battaramulla*

³*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka*

⁴*Department of Paediatrics, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka*

Introduction and Objective: Metabolic syndrome, a cluster of cardiometabolic risk factors, significantly contributes to cardiovascular disease and is increasingly observed among young adults. Despite greater health awareness, healthcare workers may be vulnerable due to occupational stress, shift work, and sedentary lifestyles. This study assessed the prevalence and associated factors of metabolic syndrome among young medical and allied healthcare workers.

Methods: A cross-sectional study was conducted among 392 healthcare workers aged 20–40 years at the National Hospital, Galle, Sri Lanka. Data on socio-demographic characteristics, lifestyle factors, anthropometry, and biochemical parameters were collected using a structured questionnaire and clinical records. Metabolic syndrome was defined according to NCEP ATP III criteria.

Results: The prevalence of metabolic syndrome was 14.8%. Central obesity was the most common component (66.3%), followed by low HDL cholesterol (34.2%), elevated triglycerides (17.3%), hypertension (15.3%), and elevated fasting glucose (9.2%). Bivariate analysis showed significant associations with age 31–40 years ($p=0.001$), low physical activity ($p<0.001$), and family history of diabetes ($p=0.003$) and dyslipidemia ($p=0.004$), and major cardiovascular events ($p<0.001$). In multivariate analysis, adequate physical activity was protective (OR 0.16; 95% CI 0.05–0.46; $p=0.001$), while family history of major cardiovascular events increased risk (OR 18.12; 95% CI 2.36–139.38; $p=0.005$). Age showed borderline significance ($p=0.051$).

Conclusion: Metabolic syndrome affects a notable proportion of young healthcare workers. Central obesity predominates, while low physical activity and family history of cardiovascular disease are key independent predictors, highlighting the need for workplace-based prevention and early screening.

Clinical audit of in-hospital management of heart failure with reduced ejection fraction in a medical ward at a Sri Lankan tertiary care centre

Amanda GH^{1,2}, Gamage AH^{1,2}, Sathischandra DHHL²

¹*Postgraduate Institute of Medicine, University of Colombo*

²*National Hospital of Sri Lanka*

Introduction and Objectives: Heart failure with reduced ejection fraction (HFrEF) is associated with significant morbidity and mortality. Guideline-Directed Medical Therapy (GDMT) has been shown to (i) reduce mortality, (ii) prevent recurrent heart failure hospitalizations, (iii) improve clinical status and quality of life.

This clinical audit aimed to describe the use of GDMT at discharge, in a medical ward at a Sri Lankan tertiary care centre, comparative to recommended international guidelines, in patients with HFrEF who have been hospitalised with decompensated heart failure.

Method: A retrospective audit performed using medical record data of all patients with HFrEF admitted with acute heart failure to a single medical unit from 01/07/2025 to 31/07/2025. Adherence of current clinical practice to guideline recommendations was assessed in terms of percentage compliance per criterion.

Results: Eighty-seven patient records were audited (mean age=61years, 54.02% male). Nine (10.34%) had recurrent hospitalizations, others were initial presentations. Forty-two (48.28%) were reviewed by a cardiology team during admission. Prescription rates of angiotensin-converting-enzyme inhibitors/angiotensin receptor blockers/angiotensin receptor–neprilysin inhibitor (ACEi/ARB/ARNI), beta-blockers (BB), mineralocorticoid-receptor-antagonists (MRA), Sodium–glucose co-transporter inhibitors (SGLT2i) were 95.40%(n=83), 90.80%(n=79), 83.91%(n=73) and 48.28%(n=42) respectively. Only 37 (42.53%) were on all four medication classes. Reasons for non-adherence to GDMT were medical in 19 patients, unavailability and unaffordability stated in 31, particularly SGLT2 inhibitors.

Conclusions: Overall GDMT adherence in patients with HFrEF did not reach standard. However, individual medication classes except SGLT2i met with audit standards. Medication unavailability was recognized as a major barrier to provision of evidence-based care.

Temporal Attainment of LDL-C <55 mg/dL After Acute Coronary Syndrome: Secondary Analysis of a Randomized Trial of Atorvastatin 40 mg Versus 80 mg

Fernando KM^{1,2}, Fernando JN³, Welhenge CU⁴, Dayanath BKTP⁵, De Silva ST^{6,7}, Mettananda CD⁸

¹Department of Biochemistry and Clinical Chemistry, Faculty of Medicine, University of Kelaniya, Sri Lanka

²NK Ceylon Institute of Medical Research, Negombo, Sri Lanka

³Department of Medicine, Flinders Medical Centre, South Adelaide, Australia

⁴University Medical Unit, National Hospital of Sri Lanka, Sri Lanka

⁵Dorevitch Pathology, Melbourne, Victoria, Australia

⁶University Medical Unit, Colombo North Teaching Hospital, Ragama, Sri Lanka

⁷Department of Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka

⁸Department of Pharmacology, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction and Objectives: European guidelines recommend achieving low-density lipoprotein cholesterol (LDL-C) levels below 55 mg/dL in very-high-risk patients following acute coronary syndrome (ACS). However, the attainability of this intensive target using statin therapy alone in South Asian patients remains uncertain. This secondary analysis evaluates LDL-C < 55mg/dL attainment at 12 and 24 weeks among statin-naïve ACS patients.

Method: This single-centre, open-label randomized controlled trial enrolled 79 statin-naïve adults presenting with ACS. Participants were randomized to atorvastatin 40 mg or 80 mg daily. Fasting lipid profiles were measured at baseline, 12 weeks, and 24 weeks. The primary outcome for this secondary analysis was the proportion of patients achieving LDL-C <55 mg/dL at each follow-up point. Between-group comparisons were performed using chi-square or Fisher's exact tests, as appropriate.

Results: Baseline LDL-C was comparable between arms (109.9 ± 28.7 vs 112.0 ± 30.2 mg/dL; $p=0.892$). At 12 weeks, LDL-C <55 mg/dL was achieved in 33.3% and 29.7% of patients in the 40 mg and 80 mg groups, respectively ($p=0.736$). At 24 weeks, target attainment improved to 63.2% and 56.8%, respectively, with no significant between-group difference ($p=0.572$). Despite improvement over time, approximately 40% of patients failed to achieve the recommended target at 24 weeks. Observed numerical differences may reflect baseline variability or chance.

Conclusions: LDL-C target attainment improved over 24 weeks but remained suboptimal, with a substantial proportion of patients not achieving LDL-C <55 mg/dL even after 24 weeks. These findings support individualized or combination lipid-lowering strategies to close the gap between real-world practice.

Beyond Free Healthcare: Financial Burden After Acute Coronary Syndrome in Sri Lanka

Ranasinghe J.M.S. Dineshan¹, Samaranayake Dulani²

¹*Post Graduate Institute of Medicine Colombo*

²*Department in Community Medicine, Faculty of Medicine Colombo*

Introduction: Acute coronary syndrome (ACS) is a major cause of morbidity worldwide and may impose substantial financial hardship, particularly in low- and middle-income countries. Despite Sri Lanka's free public healthcare system, patients often incur significant out-of-pocket expenditure for treatment and follow-up care.

Objectives: To assess financial burden and associated factors among patients with ACS in Sri Lanka.

Methods: A descriptive cross-sectional study with an analytical component was conducted among adults aged ≥ 30 years attending follow-up clinics 6–12 months after a confirmed ACS event in four secondary and tertiary government hospitals in Kalutara district, Sri Lanka. A stratified consecutive sampling method was used. Data were collected using an interviewer-administered questionnaire on socio-demographic, clinical, and financial characteristics. Out-of-pocket expenditure included direct and indirect costs and was annualised. Catastrophic Health Expenditure (CHE) was defined as healthcare spending exceeding 10% of household income. Multivariable logistic regression identified independent predictors of financial burden.

Results: Of 669 eligible patients, 664 participated (response rate 99.3%), and 651 were included in CHE analysis. Median annual out-of-pocket expenditure per patient was Rs. 37,797.5 (IQR: 18,817.8–73,245.3), with total expenditure of Rs. 74.3 million. Consultation fees (35.7%), hospital admissions (22.6%), procedures (18.6%), and transport (14.9%) were the largest contributors. CHE affected 27.3% of patients at the 10% threshold. Only 3.1% had insurance coverage. Independent predictors of financial burden included invasive procedures (OR 5.00, 95% CI 1.73–14.47), being married (OR 3.76, 95% CI 1.66–8.47), prior loans (OR 2.91, 95% CI 1.62–5.24), anxiety (OR 3.15, 95% CI 1.29–7.73), lower income (OR 2.23, 95% CI 1.42–3.51), good ACS knowledge (OR 2.39, 95% CI 1.56–3.65), and hypercholesterolaemia (OR 1.66, 95% CI 1.10–2.49).

Conclusion: Over one-quarter of patients experienced catastrophic health expenditure despite free public healthcare, highlighting hidden healthcare costs and the need for stronger financial protection policies

PP269

Predictive Performance of Cardiometabolic Indices for Metabolic Syndrome among Adults in Northern Sri Lanka.

Madhurahini R¹., Viveka M¹., Arasaratnam V¹., Kumanan T².

¹*Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka*

²*Department of Medicine, Faculty of Medicine, University of Jaffna, Sri Lanka.*

Introduction and Objectives: Metabolic syndrome (MetS) raises cardiovascular and Type 2 diabetes risk in South Asia. Simple indices enhance early detection and risk stratification. This study assessed the predictive performance of Atherogenic Index of Plasma (AIP), Lipid Accumulation Product (LAP), Visceral Adiposity Index (VAI) and Cardiometabolic Index (CMI) in identifying MetS.

Methods: A community-based cross-sectional study was conducted among 753 adults from rural and urban Northern Sri Lanka. Anthropometric and biochemical measurements were made using standardised procedures and cardiometabolic indices were calculated using established formulas. MetS was defined by IDF criteria. Associations were assessed using logistic regression, and predictive performance was evaluated using Receiver Operating Characteristic (ROC) curves.

Results: All the cardiometabolic indices were significantly associated with MetS ($p < 0.001$). In age- and gender-adjusted models, AIP showed the strongest association (OR = 72.58), followed by CMI (OR = 14.63), VAI (OR = 2.05), and LAP (OR = 1.08). ROC analysis demonstrated that LAP had the highest diagnostic performance (AUC = 0.904), followed by CMI (AUC = 0.833), VAI (AUC = 0.818), and AIP (AUC = 0.777). The optimal cut-off values were 32.84 cm.mmol/L for LAP (sensitivity 88.9%, specificity 78.5%), 0.615 for CMI (sensitivity 79.3%, specificity 75.2%), 1.985 for VAI (sensitivity 78.8%, specificity 74.1%), and 0.055 for AIP (sensitivity 76.4%, specificity 70.5%).

Conclusion: All indices were significantly associated with MetS, though predictive performance varied. LAP showed the best performance and may be preferred for screening, while other indices can support risk assessment in a low middle income country like Sri Lanka.

Associations between cardiometabolic, behavioural, and sociodemographic risk factors and cardiovascular events among adult South Asians: systematic review and meta-analysis

Samarathunga T¹, *Dissanayake H^{1,2}, Kasturiratne A³, Loh M⁴, Chambers J^{4,5}, Katulanda P^{1,2}*

¹ Centre for Diabetes, Endocrine and Cardio-metabolic Research, Department of Clinical Medicine, Faculty of Medicine, University of Colombo

² Department of Clinical Medicine, Faculty of Medicine, University of Colombo

³ Department of Public Health, Faculty of Medicine, University of Kelaniya

⁴ Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

⁵ Department of Epidemiology and Biostatistics, School of Public Health, Imperial College London, UK

Introduction and Objectives: Cardiovascular disease is a leading cause of morbidity and mortality among South Asian populations. This systematic review and meta-analysis aimed to investigate the association between cardiometabolic, behavioural and sociodemographic risk factors and cardiovascular outcomes in South Asian adults.

Method: Four databases (PubMed, EMBASE, CINAHL, Web of Science) were searched from January 2000 to August 2025 for observational studies. Twelve pre-specified risk factors were included (hypertension, diabetes, obesity, central obesity, high total cholesterol, chronic kidney disease, physical activity, smoking, alcohol use, family history of CVD, male sex and urban residence). The exposure definitions were accepted as reported by the original study authors. Cardiovascular events were defined as non-fatal myocardial infarction, non-fatal stroke, coronary heart disease including acute coronary syndromes and ischaemic heart disease, and cardiovascular mortality. Adjusted odds ratios were used to calculate pooled effect size using random-effect models. This review was registered in PROSPERO (CRD42023472612).

Results: Of 13,595 records identified, 48 studies were included in the systematic review and 27 of these were included in the meta-analysis. Hypertension (OR 3.17, 95%CI 2.46–4.08), high total cholesterol (OR 2.86, 95%CI 1.90–4.30), family history of CVD (OR 2.43, 95%CI 1.69–3.48), diabetes (OR 2.08, 95%CI 1.82–2.37), smoking (OR 1.72, 95%CI 1.35–2.20), and male sex (OR 1.51, 95%CI 1.18–1.92) were independently and significantly associated with increased odds of cardiovascular events.

Conclusions: Hypertension, type-2 diabetes, high total cholesterol, smoking, family history of CVD, and male sex were associated with increased odds of cardiovascular events among South Asian adults. Hypertension showed the strongest association.

Coping strategies among patients attending follow-up clinics after Acute Coronary Syndrome at secondary and tertiary government hospitals in Kalutara District, Sri Lanka

Ranasinghe J.M.S. Dineshan¹, Samaranayake D²

¹*Post Graduate Institute of Medicine, Colombo*

²*Community Medicine Department, Faculty of Medicine, Colombo*

Introduction: Acute Coronary Syndrome (ACS) is associated with significant psychological, social, and financial burdens that adversely affect recovery and quality of life. This study explored coping strategies adopted by patients attending follow-up clinics after ACS in secondary and tertiary government hospitals in Kalutara District, Sri Lanka.

Objective-To explore the coping strategies adopted by patients following Acute Coronary Syndrome to manage social, psychological, and financial challenges during follow-up care.

Methods- A mixed-methods study was conducted among patients attending secondary and tertiary government hospitals in Kalutara District, Sri Lanka. A cross-sectional survey of 664 post-ACS patients assessed psychological burden using the Hospital Anxiety and Depression Scale (HADS), resilience using the Brief Resilient Coping Scale (BRCS), and financial and social burden using validated study instruments. This was followed by in-depth interviews with purposively selected participants experiencing a high burden. Interviews were analysed using inductive thematic analysis until data saturation was achieved. Ethical approval and informed consent were obtained.

Results: Among 664 patients with ACS, the mean age was 62 years, and 52.6% were male. Nearly 64% adopted two or more coping strategies, while 91.6% demonstrated low resilience according to the Brief Resilient Coping Scale. Patients adopting multiple coping strategies had significantly lower depression scores ($p=0.026$). Adaptive coping mechanisms included spirituality, family support, lifestyle modification, emotional regulation, and financial prioritisation. Patients frequently practised meditation, religious activities, music, gardening, and sought social support to manage psychological distress. Financial coping involved reducing non-essential expenditure, relying on savings, and using government healthcare services, while social coping included role adaptation, self-care, and family support. Maladaptive coping responses such as withdrawal, avoidance, rumination, frustration, and reluctance to seek support were also identified. Fear of recurrent cardiac events, financial hardship, reduced independence, and social isolation contributed to persistent distress. Coping behaviours were strongly influenced by cultural values, socioeconomic conditions, family relationships, and religious beliefs.

Conclusion -Patients following ACS used adaptive and maladaptive coping strategies shaped by cultural and socioeconomic factors. Culturally appropriate multidisciplinary interventions incorporating psychological support, financial counselling, resilience-building, and family-centred rehabilitation are needed to improve long-term recovery and quality of life.

Potential Antihypertensive effects of *Passiflora edulis*: A Systematic Review of Preclinical and Clinical Evidence

Priyanga Ranasinghe¹, Tharushi Rajapakshe¹, Pumudu Weerasekara¹, Vibath Abayawickrama¹

¹Department of Pharmacology, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction and Objectives: *Passiflora edulis* (passion fruit) is traditionally valued for cardiovascular and calming properties, but its antihypertensive potential has not been systematically synthesized. This systematic review aimed to evaluate the efficacy, safety, and mechanisms of *P. edulis* in blood pressure regulation across preclinical and clinical evidence.

Methods: A literature search was conducted on PubMed, Web of Science, and Scopus. Eligible studies included preclinical and clinical trials examine changes in blood pressure or vascular outcomes following *P. edulis* administration. Extracted data included study characteristics, intervention details, outcomes, mechanisms, and safety findings. Due to heterogeneity in study populations, extract types, dosages, and outcome measurements, a meta-analysis could not be performed.

Results: Eight studies met the inclusion criteria: six preclinical and two clinical. Preclinical studies demonstrated significant reductions in systolic, diastolic, and mean arterial pressure, with effects observed acutely (within 1–7 hours) and chronically (up to several weeks). Vasorelaxant activity was consistently shown, with seed extracts producing stronger relaxation responses (70–86%) than whole fruit extracts (20–31%). Proposed mechanisms included gamma-aminobutyric acid mediated central sympathetic suppression, nitric oxide enhancement, activation of potassium channels, and inhibition of concentration-dependent angiotensin II-induced vasoconstriction. Human trials reported clinically significant reductions in systolic blood pressure (7.7–30.9 mmHg) and diastolic blood pressure (up to 24.6 mmHg). Cardioprotective improvements, i.e. enhanced left ventricular function, were reported in animal models.

Conclusions: *P. edulis* demonstrates antihypertensive potential supported by various mechanisms and a favourable safety profile. However, evidence is limited by small clinical sample sizes, variability in extract preparations, and short study durations.

May Measurement Month Sri Lanka 2024: Opportunistic Blood Pressure Screening to Improve Hypertension Awareness and Detection in a Community-Based National Campaign

Rathnayake N¹, Mettananda C², Jayaweerabandara D³, Kumanan T⁴, Ralapanawa U⁵, Thangarajah B⁴, Manchanayake M¹, Jeyapragasam H¹, Ranasinghe P¹

¹*Department of Pharmacology, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Department of Pharmacology, Faculty of Medicine, University of Kelaniya, Sri Lanka*

³*National Hospital Galle, Sri Lanka*

⁴*Department of Medicine, University of Jaffna, Sri Lanka*

⁵*Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and Objectives: Hypertension remains the leading modifiable risk factor for cardiovascular disease and premature mortality worldwide, with a substantial proportion remaining undiagnosed or inadequately controlled in low- and middle-income countries. This study aimed to evaluate the prevalence, awareness, treatment, and control of hypertension during May Measurement Month (MMM) Sri Lanka 2024.

Methods: A national cross-sectional opportunistic blood pressure (BP) screening campaign was conducted across all nine provinces of Sri Lanka from May-July 2024. Adults ≥ 18 years were screened at community centres, hospitals/pharmacies, workplaces, and public locations. Three standardized BP readings were obtained, and an interviewer-administered questionnaire was administered. Hypertension was defined as an average systolic BP ≥ 140 mmHg, diastolic BP ≥ 90 mmHg, or current antihypertensive treatment. Associated risk factors were analysed using binary logistic regression.

Results: A total of 6,238 participants were screened; 66.1% (n=4122) were female, with a mean age of 52.8 ± 13.9 years. Overall, 2,562 (41.1%) were hypertensive, including 823 (32.1%) previously undiagnosed. Among first-time BP measurements (n=858, 13.8%), 20.2% were hypertensive. Of those aware of their diagnosis, 47.0% were uncontrolled, and 20.8% were not receiving treatment. Among the treated, 61.4% were on monotherapy while 25.3% were on dual therapy. Male sex, increasing age, higher waist-to-height ratio, smoking, diabetes mellitus, and alcohol intake were independently associated with hypertension. While regular physical activity was protective, dietary pattern was not associated with hypertension.

Conclusions: MMM Sri Lanka 2024 identified a substantial burden of undiagnosed and uncontrolled hypertension, highlighting persistent gaps in hypertension care. Community-based opportunistic screening programmes may improve early detection and cardiovascular risk reduction in Sri Lanka.

Outcomes of Administrative Action Plan of Antimicrobial Stewardship (AS): Intervention Study to Improve Antimicrobial Stewardship (AS) at Navy Hospital, Eastern Command (NH EC)

Duminda Indunil Samarawickrama, Mahesika Medavini Manupriya Samarawickrama, [Samarawickrama DI](#)

Navy Hospital, Trincomalee

KDU

Background: Antimicrobial resistance poses a significant challenge in clinical practice, largely driven by the inappropriate use of broad-spectrum antibiotics. Antimicrobial stewardship (AS) programs promote rational antibiotic use through coordinated interventions, aiming to improve patient outcomes, reduce toxicity, lower healthcare costs, and curb resistance. At Navy Hospital, Eastern Command (NH-EC), Coamoxyclav was frequently prescribed for respiratory tract infections without clear indications, prompting a need for structured intervention.

Objective: This study evaluated the impact of a formal administrative AS action plan on Coamoxyclav consumption at NH-EC.

Methods: A retrospective analysis was conducted comparing annual oral and intravenous Coamoxyclav use between 2021 and 2022. The intervention, introduced from November 2021 to November 2022, included administrative directives mandating appropriate investigations (e.g., FBC, CRP, cultures), application of clinical scoring systems (CURB-65, qSOFA), severity assessment, and mandatory second opinions before initiating IV broad-spectrum antibiotics in stable patients. Data were extracted from ward records, laboratory registers, and pharmacy logs, with updates shared via a clinician WhatsApp group.

Results: Following the intervention, the projected annual defined daily dose (DDD) per 1,000 for oral Coamoxyclav 625 mg decreased from 2,083 g in 2021 to 1,597.2 g in 2022—a 23.3% reduction. Intravenous Coamoxyclav DDD fell from 333 g to 260 g, a 21.2% decline, despite an approximate 2.5% increase in respiratory tract infections during 2022. While these reductions are clinically meaningful, a paired t-test indicated they were not statistically significant ($t = 1.35$, $p = 0.405$).

Conclusion: Implementation of a structured AS action plan at NH-EC enhanced the rational use of Coamoxyclav, yielding substantial reductions in antibiotic consumption and potential cost savings. Although statistical significance was not achieved, the findings support the continued refinement of stewardship strategies to combat antimicrobial resistance.

Clinical Characteristics and Outcome of Genitourinary Tuberculosis in Sri Lanka: An Observational Study

Jayarajah U^{1,5}, Gunawardene M¹, Willaraarachchi M¹, Chandrasiri S², Udayakumaran P³, Sosai C⁴, Abeygunasekera A¹

¹Department of Urology, Colombo South Teaching Hospital, Dehiwala, Sri Lanka

²Department of Microbiology, Colombo South Teaching Hospital, Dehiwala, Sri Lanka

³Department of Radiology, Colombo South Teaching Hospital, Dehiwala, Sri Lanka

⁴Department of Pathology, Colombo South Teaching Hospital, Dehiwala, Sri Lanka

⁵Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction: The clinical characteristics of genitourinary tuberculosis (GUTB) in Sri Lanka have not been previously studied or documented. This study aimed to evaluate the clinical and imaging features, treatment modalities, and outcomes of GUTB patients in Sri Lanka.

Methodology: Data were collected from patients managed by a single urological surgeon across two institutions over a 21-year period. All patients with microbiological and/or histopathological confirmation of GUTB were included. The median duration of follow-up was 24 months (range: 6–96 months).

Results: A total of 82 patients were included, of whom 45(54.9%) were male. The median age was 51 years (range:26–75). At presentation, 39%(n=32) had non-specific symptoms. The Mantoux test was performed in 70 patients and was positive (>10 mm) in 62(88.5%). Erythrocyte sedimentation rate was elevated (>30 mm/hr) in 54/69 (78.3%) patients.

Abnormalities in CT urography and cystoscopy were detected in 57/72 (79%) and 31/42 (73.8%) respectively. Microbiological confirmation was achieved in 43 patients (52.4%), while the remainder were diagnosed histopathologically.

All patients received anti-tuberculosis therapy as primary treatment; however, 50 patients (61%) required interventions (reconstructive procedures-24.4%, excisional surgeries-23.2%, drainage procedures-13.4%).

Seven patients developed significant adverse reactions to anti-tuberculosis medications. Five patients developed a thimble bladder and only two patients had evidence of relapse.

Conclusion: This study represents the most comprehensive report on GUTB in Sri Lanka. A combination of imaging, cystoscopy, and histopathology is essential for accurate diagnosis. Surgical intervention is often required for complications. Long-term follow-up is necessary to monitor renal function and disease relapse.

Staphylococcal contamination of high-touch surfaces in a tertiary care hospital in the Central Province

Perera HCAD¹, Kudagammana HDWS², Dissanayake R², Liyanapathirana V²

¹*Faculty of Allied Health Sciences, University of Peradeniya, Sri Lanka*

²*Faculty of Medicine, University of Peradeniya, Sri Lanka*

Introduction and Objectives: Environmental contamination contributes to healthcare-associated infections, but Sri Lankan data remain limited. This study assessed the frequency, distribution, and antimicrobial resistance of staphylococci on high-touch surfaces at a tertiary care center in the Central Province.

Methods: This cross-sectional study included 212 swabs collected from 21 surfaces across intensive care, surgical and ambulatory units at Teaching Hospital, Peradeniya from February to May 2025. *Staphylococcus aureus* and Coagulase-negative staphylococci (CoNS) were identified, antibiotic sensitivity was tested (disc-diffusion and MIC). PCR was done for *mecA* gene.

Results: *S. aureus* and methicillin-resistant *S. aureus* (MRSA) were isolated from 12.74% (27/212; 95% CI 8.56–17.99) and 3.8% (8/212; 95% CI 1.64–7.30) surfaces. Contamination varied significantly across units ($p=0.004$), with ambulatory areas showing the highest burden (*S. aureus* 23.2%; MRSA 5.4%). Contamination was highest on surfaces frequently handled by both patients and healthcare workers and lowest on healthcare worker-only surfaces (*S. aureus* $p=0.002$; CoNS $p<0.001$).

Among *S. aureus* isolates, 62.5% (20/32) were resistant to at least one antibiotic, and 21.9% (7/32) were multidrug-resistant (MDR). Five of eight MRSA isolates were MDR; all remained susceptible to vancomycin. Only 2/8 MRSA isolates carried *mecA*. CoNS with screening oxacillin minimum inhibitory concentration ≥ 4 $\mu\text{g/ml}$ were detected in 86.8% (184/212) surfaces. Pre-and post-cleaning samples showed no significant reduction in contamination (*S. aureus* $p=0.796$; MRSA $p=0.655$; CoNS $p=0.197$).

Conclusions: High-touch surfaces are reservoirs of antibiotic-resistant Staphylococcal strains. The presence of *mecA*-negative MRSA and the lack of a significant reduction of isolate counts with cleaning needs further exploration.

Inflammatory Haematological Ratios as Predictors of Length of Stay in Hospitalised Febrile Patients

Jayasekera MMPT¹, Lamabadusuriya DA¹, Munasinghe JM¹, Perera DN¹, De Silva R¹, De Silva NL¹, Jayasena H¹, Nakkawita D², Somaratne I², Silva T³, Goonesekara C³, Premaratne P², De Silva AD², Abeygoonawardena H¹, Edirisinghe EMDT⁴, Herath G, Basnayaka BMITS¹, Wijesinghe RANK¹.

¹*Department of Medicine, Faculty of Medicine, General Sir John Kotelawala Defence University*

²*Department of Paraclinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University*

³*Department of Preclinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University*

⁴*University Hospital, Kotelawala Defence University.*

Background: Prolonged hospital stay places a significant burden on healthcare systems and resource utilisation. Early identification of predictors at admission is essential for effective patient management and planning. Inflammatory markers such as neutrophil–lymphocyte ratio (NLR), platelet–lymphocyte ratio (PLR) and monocyte–lymphocyte ratio (MLR), which are derived from routine blood investigations, may serve as practical indicators for predicting hospital stay duration of a febrile patient.

Methodology: A cross-sectional analytical study was conducted using data from the Acute Fever Database among 100 patients presenting with fever. Demographic and clinical data were collected, and complete blood count parameters on the date of admission were used to calculate NLR, MLR and PLR. Descriptive statistics were used to summarise patient characteristics and marker values. Spearman's correlation analysis was performed to assess the association between inflammatory markers and length of hospital stay.

Results: The mean age of the study population was 40.5 ± 17.7 years, with a slight female predominance (52%). Spearman's correlation analysis demonstrated that NLR ($p = 0.001$) and MLR ($p = 0.005$) were significantly associated with longer hospital stays, while PLR ($p = 0.761$) did not show a significant association with duration of hospitalisation.

Conclusion: NLR and MLR are significant predictors of hospital stay duration. Assessing these markers at admission may enable early identification of patients at risk of prolonged hospitalisation, thereby facilitating timely clinical decision-making and more efficient allocation of healthcare resources.

Clinico-epidemiological characteristics and associated risk factors among confirmed leptospirosis patients at Teaching Hospital, Jaffna

Yanuthy T¹, Coonghe P A D², Liyanage C³, Jayasundara D⁴, Warnasekara J⁴

¹Department of Nursing, Faculty of Allied Health Sciences, University of Jaffna

²Department of Community & Family Medicine, Faculty of Medicine, University of Jaffna

³Department of Sociology, University of Colombo

⁴Department of Community Medicine, Faculty of Medicine & Allied Sciences, Rajaratta University⁴

Introduction and Objective: Leptospirosis is a zoonotic bacterial disease with clinical manifestations ranging from mild to life-threatening. Since Jaffna has low endemicity, identifying risk factors is crucial, especially given the rise in cases in 2024. This study describes clinical features and factors associated with confirmed leptospirosis among patients with suspected leptospirosis at Teaching Hospital, Jaffna (THJ).

Method: An analytical cross-sectional study was conducted at THJ from September 2023 to February 2024, enrolling patients with suspected leptospirosis based on epidemiology unit criteria. Diagnosis was confirmed with Polymerase Chain Reaction and Microscopic Agglutination Test. Data analysis used multiple logistic regression following bivariate analysis.

Results: Among the 102 participants, 20 had laboratory-confirmed leptospirosis. Most were male (n=14, 70%) and aged between 32 and 47 years. Fever was observed in all participants, with common symptoms including myalgia (n=18, 90%), arthralgia (n=16, 80%), and headache (n=15, 75%). Renal complications were significantly associated with leptospirosis (p=0.046), while pulmonary complications were not. Multivariable analysis showed a positive association of confirmed leptospirosis with unsafe household water usage (aOR=3.8; 95% CI: 1.2–11.9), improper garbage disposal at home (aOR=3.7; 95% CI: 1.2–11.8), and residence within 200m of paddy fields (aOR=4.3; 95% CI: 1.4–13.8).

Conclusion: These findings suggest a potential role of household-related environmental factors in the transmission of leptospirosis among confirmed leptospirosis patients at THJ. Improved diagnostics and targeted, context-specific public health interventions are essential to address rising case numbers in Jaffna.

Importance of the public-private partnership in preventing re-establishment of malaria

Chulasiri P¹, Gunaratna I¹, Gallage S¹, Ratnayake K.A.S.D.¹, Pragasan G.¹, Jayasinghe S¹, Fernando D².

¹*Anti Malaria Campaign, Colombo 05, Sri Lanka*

²*Faculty of Medicine, University of Colombo, Colombo 8, Sri Lanka*

Introduction and objective: Private health sector involvement has been critical for prevention of re-establishment of malaria in Sri Lanka. As delayed diagnosis and treatment of malaria can lead to a risk of severe disease and onward transmission. In 2023 the Ministry of Health issued a General Circular to strengthen diagnosis and reporting by the private health care facilities institutes to the Anti Malaria Campaign (AMC). The objective of this study was to describe the contribution of the private health care sector for malaria diagnosis.

Methods: A retrospective descriptive study was carried out analyzing secondary data of malaria patients maintained by the AMC from 2020-2025 to describe the number of malaria patients diagnosed and treated in the private health care sector.

Results: Over the six-year period, 236 imported malaria cases were diagnosed in Sri Lanka. Of these, 58 approximately 1/4th of cases (24.6%) were diagnosed at private hospitals by Medical Laboratory Technicians (MLTs) with 100% real time reporting. Of all malaria cases diagnosed in the Colombo district (n=53), 37 cases (39.8%) were diagnosed from private sector. Sixty-four patients (27.1%) were admitted and treated at private hospitals under the care of a Consultant Physician.

Conclusions: Private sector laboratories diagnose nearly one-fourth of imported malaria cases in Sri Lanka, highlighting their vital role in malaria surveillance. Continuous AMC-led training for private sector MLTs strengthens diagnostic capacity and reinforces effective public-private collaboration essential to sustaining the country's malaria-free status.

Young male with EBV-related Kikuchi -Fujimoto Disease presenting with blue nails: A Diagnostic challenge

Madhusanka RBD¹, Jayasinghe JADAE², Herath HMSN³

¹*Faculty of Medicine, University of Peradeniya, Sri Lanka.*

²*District Base Hospital, Rikillagaskada, Sri Lanka.*

³*Armadale Health Service, Western Australia.*

Background: Kikuchi-Fujimoto Disease (KFD), or histiocytic necrotizing lymphadenitis, is a rare, self-limiting condition predominantly affecting young women. Classical features include tender cervical lymphadenopathy, low-grade fever, and constitutional symptoms. Cutaneous manifestations occur in 30–40% of cases, ranging from erythematous rashes to papulovesicular eruptions. Cyanonychia has not been previously reported as a cutaneous manifestation of KFD, EBV or EBV related KFD representing a potentially novel association.

Case: A 20-year-old male presented with one month of high-grade evening pyrexia, night sweats, weight loss, and generalized lymphadenopathy. Examination revealed cervical, supraclavicular, axillary, and inguinal lymphadenopathy with mild splenomegaly. Investigations demonstrated bicytopenia, markedly elevated serum ferritin, elevated plasma fibrinogen, and positive EBV IgM serology. Lymph node biopsy confirmed necrotizing lymphadenitis consistent with KFD. Bone marrow biopsy and 2D-Echocardiography were unremarkable. Following discharge after antipyretic management, the patient re-presented with bilateral blue nail bed discoloration (cyanonychia).

Discussion: Hemoglobin abnormalities, rheumatological disorders, and hemophagocytic lymphohistiocytosis were systematically excluded. Bilateral cyanonychia was attributed to KFD as a novel cutaneous manifestation in the context of EBV-associated disease. Literature review confirmed no prior documented cases of cyanonychia in KFD, supporting this as an unreported phenotypic association.

Conclusion: This case expands the recognized cutaneous spectrum of KFD, introducing bilateral cyanonychia as a potential novel manifestation in EBV-associated disease. Clinicians should maintain vigilance for atypical dermatological features in KFD to avoid diagnostic delay. Further case documentation is warranted to characterize this association and its pathophysiological basis.

Parvovirus B19 viraemia and associated clinical manifestations in Sri Lanka

Samaraweera B¹, Madarasinghe NS¹, Wijayasiriwardhana J², Abeynayake JI¹

¹*Department of Virology, Medical Research Institute, Colombo 08*

²*Ministry of Health, Sri Lanka*

Introduction: Parvovirus B19 affects multiple organs causing diverse clinical manifestations. Quantitative molecular diagnostic tests are important in management and follow-up of patients. This analysis aimed to investigate the parvovirus B19 viraemia and associated sociodemographic and clinical factors, contributing to a better understanding of the disease burden in the local context.

Methodology: Samples received at National Virology Laboratory, Medical Research Institute from January 2024 and December 2025 for parvovirus B19 real-time polymerase chain reaction (rt-PCR) fulfilling the sample acceptance criteria were analyzed for parvovirus B19 DNA using a commercially-validated quantitative rt-PCR assay. Data including viral load, socio-demographic and clinical status retrieved from requests forms were analyzed anonymizely using descriptive-statistics.

Results: Total of 248 samples were analyzed and the parvovirus B19 DNA positivity rate was 33%. Majority of positive specimens (91.5%) were blood, while other types represented bone marrow, CSF and renal biopsies. Positive samples were received from all nine provinces. Males were 40% and females were 27% in DNA positive group with the age-range of 1 day-57 years with the mean, median and mode of 21, 10 and 7 years respectively. Fever, rash, arthritis, arthralgia, acute hemolysis, anaemia, thrombocytopenia, pancytopenia, meningitis, proteinuria, pancreatitis, vasculitis, intrauterine death and hydrops fetalis were the clinical presentations in the parvovirus B19 positive cohort. Positivity rate was high in patients with underlying comorbidities including malignancies (100%), renal diseases (62%) and hematological disorders (60%).

Conclusion: Active parvovirus B19 infection was detected significantly in patients presenting with different clinical spectrum and co-existing comorbidities from all over the country. It highlights the importance of increased clinical awareness and timely laboratory diagnosis to improve patient management and the clinical outcome.

Clinico-epidemiology of wasp (*Vespa* spp.) stings in Ratnapura

Rathnayaka R.M.M.K.N.^{1,2}, Ranathunga P.E.A.N.², Umayangana W.U.¹

¹*Department of Pharmacology, Faculty of Medicine, Sabaragamuwa University of Sri Lanka*

²*Medical Unit, Teaching Hospital, Ratnapura, Sri Lanka*

Introduction and objectives: Wasps (*Vespa* spp.) are medically important arthropods in Sri Lanka and their stings can cause local and systemic manifestations. This study aimed to describe the epidemiological and clinical manifestations of wasp stings in Ratnapura.

Method: A retrospective study was conducted among 128 patients admitted with wasp stings to the medical wards of Teaching Hospital Ratnapura over two years commencing in April 2022.

Results: Of the 128 patients, 83 (64.8%) were males. Mean age was 47 ± 15.8 years (range: 15-91). Cases occurred throughout the year, peaking in June (18;14%). Most patients were from Ratnapura (59;46%). Direct admissions were 113 (88.3%), while 11.7% (n=15) were transferred. Most (64;50.4%) were presented within 1-3 hours. Most stings occurred between 6 AM-12 PM (65;53.3%) in estates (73;57%). Multiple-site stings were most common (84;67.2%), followed by upper limbs (19;15.2%), head/neck (13;10.4%), trunk (6;4.8%) and lower limbs (3;2.4%). Hospital stay ranged from 1-15 days (median-2 days, IQR 2-2). Local pain (125;97.7%), swelling (114;89%), redness (49;38%) and urticaria (4;3%) were observed as local envenoming effects. Nonspecific features included faintness (26;20%), nausea/vomiting (20;15.6%), fever (3;2%) and abdominal pain (2;1.6%). Systemic effects were allergic reactions in 7 (5.5%) [mild (2;1.6%), moderate (1;0.8%) and severe (anaphylaxis) (4;3.1%)], acute kidney injury (AKI) requiring hemodialysis in 4 (3%) and thrombotic microangiopathy (TMA) in 2 (1.6%). All (118;93%) patients recovered and 10 (7%) were left against medical advice.

Conclusion: Wasp stings commonly cause local envenoming effects; however, severe complications such as anaphylaxis, AKI and TMA may occur.

A Descriptive Analysis of Females Attending the Obesity Clinic at UHKDU- an interim analysis

Lamabadusuriya DA¹, Abdul Hamid FF¹, De Silva RM¹, Perera D¹, Munasinghe J¹, De Silva AMNL¹, Waidyarathna GRNN¹, Kariyawasam V¹, Solomons T¹, Vidanagamage G¹, Jayasekara MMPT¹

¹ *University Hospital KDU*

Introduction and Objectives: Obesity is characterized by excessive/abnormal accumulation of body fat. Studies report 12.6% of Sri Lankan women aged 18–60 years are obese. Obesity is associated with multiple metabolic, gynaecological, and obstetric complications. This study aims to describe sociodemographic characteristics, medical comorbidities, and gynaecological/obstetric history of females registered at the multidisciplinary obesity clinic at a tertiary care hospital.

Method: Descriptive cross-sectional study, with data collected from all consecutive patients aged 14-55 with BMI >27kg/m² over 1 year using an interviewer administered questionnaire. Anthropometric measurements were done according to WHO standards. Ethical approval was obtained from REC, KDU.

Results: Among 55 patients registered, 38 were female. Mean age was 32 years, mean weight, BMI, and waist circumference were 89 kg, 35.3 kg/m², and 100 cm, respectively. Majority (34.2%) had class I obesity. 73.7% reported a first-degree family history of obesity. Hypertension was present in 13.2%, while 21.1% had metabolic dysfunction-associated steatotic liver disease. Diabetes mellitus, pre-diabetes, hypothyroidism, and dyslipidaemia were each identified in 10.5% of participants. 4 patients had high risk for obstructive sleep apnoea. 50% had acanthosis nigricans. Mean triglyceride and LDL cholesterol levels were 146.1 mg/dL and 129.9 mg/dL, respectively. Low physical activity was reported in 42.1%. Menstrual irregularities were present in 31.6%. 3 patients had polyendocrine metabolic ovary syndrome. Among women who had conceived, gestational diabetes mellitus, foetal malposition, and labour complications were reported.

Conclusions: The females attending the clinic had significant metabolic and reproductive health concerns, highlighting the importance of multidisciplinary management and early intervention strategies.

What is a ‘good death’ in Sri Lanka?

Wijeyaratne LA¹, Ramadasa GU², Jayasinghe S³, Spruijt O⁴, Philip J⁵

¹*Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne*

²*Faculty of Medicine, Sabaragamuwa University of Sri Lanka*

³*Faculty of Medicine, University of Colombo; Department of Medicine, Faculty of Medicine, Sabaragamuwa University of Sri Lanka*

⁴*Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne; Tasmania North Specialist Palliative Care Service.*

⁵*Centre for Cancer Research, Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne; St Vincent's Hospital*

Introduction and Objectives: Enabling a ‘good death’ requires understanding the values and preferences of the relevant people. Preliminary data regarding this is available in Sri Lanka.

This study aimed to explore a ‘good death’ through the values and preferences expressed by Sri Lankan patients with advanced cancer, their caregivers, and healthcare workers.

Method: A qualitative study was performed in 2023 at a tertiary cancer hospital to explore what was considered important at the end-of-life in advanced cancer. A purposive sample of patients with advanced cancer (n=12), current and bereaved caregivers (n=15), and oncology and palliative care doctors and nurses (n=22) underwent semi-structured interviews. Thematic analysis was performed.

Results: All parties made compromises to achieve a ‘good enough’ death. Mutual care occurred between patients, families, healthcare workers, and the community. Within this network, families were the fulcrum, and patients were not always the priority. Care was often expressed through fulfilling specific duties, visible actions, and compassionate speech, imbued with religious beliefs and practices. Patients and families perceived these acts of care as maintaining patient dignity.

Conclusions: The findings highlight the importance of family, relationships, duty, and religion in the ‘good enough death’ in Sri Lanka, with less emphasis on symptom management. Healthcare workers should be reassured that ‘good enough’ is meaningful, and many important aspects of this are practical and available to implement. Research and policies should focus on implementing a family-centered model of care that integrates the social and religious aspects of dying well.

Lived experiences of women diagnosed with Systemic Lupus Erythematosus (SLE): A qualitative study in a tertiary care hospital in North Central Province of Sri Lanka

Wijesinghe WIG¹, Wickramasooriya RDGSS¹, Wijayakoon WMHG¹, Wijekoon WMAG¹, Wijerathna KTJM¹, Wijesinghe AAD¹, Paththinige CS¹

¹*Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka*

Introduction and Objectives: Systemic Lupus Erythematosus (SLE) is a multi-system autoimmune disease predominantly affecting young women, significantly impairing quality of life. While higher disease activity is linked to poorer outcomes, the personal impact remains under-explored. This study explores the lived experiences of women with SLE managed at a tertiary care hospital in North-Central Province of Sri Lanka.

Method: A qualitative study with phenomenological design was conducted among fifteen women diagnosed with SLE for ≥ 6 months, ensuring variation in disease duration and severity. Participants were recruited using purposive sampling from the Teaching Hospital-Anuradhapura until theoretical saturation was achieved. Data were collected through in-depth interviews, which were transcribed verbatim, translated into English and analyzed using a thematic approach.

Results: Five major domains comprising twenty themes were identified: physicality, socioeconomic impact, psychological and emotional impact, healthcare journey, and coping and support systems. Physicality includes symptoms, treatment-related side effects and overall physical burden. The socioeconomic domain reflects limitations on daily activities, education, occupation, marital life and economic impact. Psychological and emotional domain captures emotional burden of living with SLE including, fear, anxiety, isolation and stigma. The healthcare journey highlights experiences and barriers in accessing and utilizing healthcare facilities. Coping and support systems details the role of social support and spiritual practices in the lives of these women.

Conclusion: The findings reveal interconnected challenges across different domains. A comprehensive, patient-centered approach addressing psychological, socioeconomic and healthcare-related needs alongside clinical management is essential to improve the lived experiences of women with SLE.

PP286

Achievement of guideline-directed glycemic, lipid, and blood pressure targets in type 2 diabetes mellitus patients attending a tertiary care centre in Sri Lanka

Gamage AH¹, Chandrasekaran M², Sumaiya LF¹, Sumanatilleke M²

¹ *Postgraduate Institute of Medicine, University of Colombo*

² *National Hospital of Sri Lanka*

Introduction: Optimal control of blood pressure (BP), lipid levels, and glycemia is essential in reducing macrovascular and microvascular complications in patients with type 2 diabetes mellitus (T2DM).

Methodology: A cross-sectional audit was conducted, including 193 patients with T2DM attending the Endocrine clinic at the National Hospital of Sri Lanka. All diabetic clinic attendees aged over 18 years with T2DM, who had been followed up for at least 6 months, were audited over one month. Audit standards were based on National and American Diabetes Association 2026 recommendations.

Results: The mean age of patients was 59.2±10.3 years, with a female predominance (70.5%). The mean diabetes duration was 11.1 years. Hypertension (68.4%) and dyslipidemia (66.3%) were the commonest comorbidities. BP targets were achieved in 87.6% of patients, whereas LDL targets were achieved in only 47.7%. Glycemic control was suboptimal, with only 36.8% achieving target HbA1c levels (mean HbA1c 8.31%).

Among patients with uncontrolled parameters, therapy intensification was inconsistent. Among those with uncontrolled glycemia, 60.2% had a change in therapy, while insulin was initiated in 18.7%. Among patients with uncontrolled BP and dyslipidemia, 51.6% and 41.2%, respectively, had no intervention. Patient-related factors included poor compliance (59.1%), with non-adherence to medications (25.4%) and lifestyle measures (19.2%). Health education was provided to 89.6% of patients at least once during clinic visits, though gaps in insulin technique education were observed.

Conclusion: While BP control was satisfactory, glycemic and lipid targets remain inadequate. Therapeutic inertia and poor patient adherence contributed to suboptimal outcomes. Strategies focusing on treatment intensification, patient education, and improving adherence are needed to enhance diabetes care.

Epidemiological and clinical features of Kaneru (Yellow oleander - *Thevetia peruviana*) poisoning in Ratnapura

Rathnayaka R.M.M.K.N.^{1,2}, Ranathunga P.E.A.N.²

¹*Department of Pharmacology, Faculty of Medicine, Sabaragamuwa University of Sri Lanka, Ratnapura, Sri Lanka*

²*Medical Unit, Teaching Hospital, Ratnapura, Sri Lanka*

Introduction and Objectives: Kaneru is a widely distributed ornamental plant in Sri Lanka. Its seeds contain cardiac glycosides (digoxin). However, regional data on Kaneru poisoning in Sri Lanka remain limited. This study aimed to describe the clinico-epidemiology of Kaneru poisoning in Ratnapura District.

Methods: A prospective observational study was conducted among patients admitted with Kaneru ingestion to the Teaching Hospital, Ratnapura, from March 2024 to February 2026. Data were collected using an interviewer-administered questionnaire.

Results: Thirty patients with Kaneru poisoning were included, of whom 29 (96.7%) were intentional self-poisoning and 1 (3.3%) was accidental ingestion. Sixteen (53.3%) were females. The mean age was 25.3 ± 9.8 years (range: 13–52 years) and 23 (76.7%) were younger than 30 years. Eight (26.7%) were school children. Twenty-four (80%) were from Embilipitiya. Kaneru seeds were ingested in 29 cases (96.7%), while one (3.3%) ingested leaves. The commonest ingested dose was 4 seeds ($n=8, 26.7\%$; IQR 1-4 seeds). The median duration of hospital stay was 4 days (IQR 3-4).

Presenting symptoms included vomiting ($n=19, 63.3\%$), nausea ($n=14, 46.7\%$), epigastric pain ($n=13, 43.3\%$), headache ($n=8, 26.7\%$), and faintness ($n=7, 23.3\%$). Cardiac manifestations were observed in 17 patients (56.7%) including bradycardia ($n=12$), heart block ($n=4$), ischemic changes ($n=3$), hypokalaemia ($n=2$), hyperkalaemia ($n=1$) and hypotension ($n=1$). Gastric lavage was performed in 25 (83.3%) and activated charcoal was administered in 26 (86.7%). Temporary pacemakers were required for 3 (10%). Isoprenaline and atropine were used in 9 (30%) and 8 patients (26.7%), respectively. One (3.3%) died on admission.

Conclusion: Kaneru poisoning is common among young adults in Ratnapura.

Non-Specific Trained Immunity Effects of BCG Vaccination Beyond Tuberculosis: Scoping Review

Jayasingh S.S¹, Jayasekara L.A.S.P¹, Gamage M.G.T.S¹, Jayantha A.B¹, Haris M.H.F.R¹, Abeysuriya V¹

¹*Institute of Biochemistry Molecular Biology and Biochemistry, University of Colombo*

Introduction and Objectives: BCG vaccination is prominently used against tuberculosis. Emerging evidence reveals, BCG induce non-specific-trained immunity, through epigenetic reprogramming, metabolic rewiring, and altered myelopoiesis resulting immunomodulatory effects beyond tuberculosis. This study aimed to map reported clinical and immunological effects of BCG-induced-non-specific-trained immunity across autoimmune, neurodegenerative, infectious, and cancer-related diseases.

Methodology: Study was conducted as scoping review. Literature search was conducted over three weeks using PubMed, Google Scholar, identifying 377 records. Following screening, 103 articles were assessed for eligibility using predefined inclusion and exclusion criteria. Human studies published within last five years were prioritized, studies lacking relevant clinical outcomes were excluded. Seven studies were included for data synthesis. RStudio was used in data analysis, and review was reported according to PRISMA-ScR reporting framework.

Results: Strongest clinical effects were observed in multiple sclerosis, BCG reduced MRI inflammatory activity; 46% fewer gadolinium-enhancing lesions, 64% fewer new/enlarging T2 lesions, and 85% fewer T1 black holes. Type 1 diabetes, BCG demonstrated delayed but sustained metabolic improvement; 18% reduction in HbA1c after four years. Infectious disease; reduced neonatal and childhood pneumonia mortality and decreased yellow fever viraemia. Alzheimer's disease, BCG enhanced innate-immune activation, Th1 polarization and regulatory T-cell modulation. Bladder cancer, BCG demonstrated immunotherapeutic effects through enhanced antigen presentation, Th1 cytokine responses, and recruitment of cytotoxic immune cells resulting reduced recurrence.

Conclusion :Review suggests, BCG-induced-non-specific- trained immunity may have promising therapeutic potential in selected disease populations. Although current evidence is encouraging, further clinical research is required to establish therapeutic effectiveness and broader clinical applicability.

Evaluation of Iron Deficiency Screening and Evidence-Based Management in Heart Failure Patients: A Clinical Study at a Tertiary Care Hospital in Sri Lanka

Kirushanth C¹, Jayasundera YMVRB¹, Pamunuwa NT¹, Silva FHDS^{1,2}

¹*Professorial Medical Unit — Colombo South Teaching Hospital*

²*Department of Medicine, Faculty of Medicine, University of Sri Jayawardenapura*

Introduction and Objectives: Iron-deficiency (ID) is a common comorbidity in patients with heart-failure (HF), contributing to impaired functional capacity, poor quality of life, and increased hospitalization. Guidelines recommend routine screening and intravenous iron therapy, but adherence in resource-limited settings remains uncertain. This study aimed to assess the prevalence of ID among HF patients, evaluate adherence to guideline-recommended screening and treatment, and identify barriers for optimal management.

Method: A retrospective cross-sectional study was conducted in the cardiology and medical units of Colombo South Teaching Hospital over six months. Adult patients with confirmed HF, including HFrEF, HFmrEF, and HFpEF, were included. Data were extracted from clinical records using a structured study tool capturing demographic details, HF subtype, iron studies, treatment practices, and selected clinical outcomes. Study standards were based on ESC and AHA/ACC guideline recommendations. Descriptive and subgroup analyses were performed.

Results: Hundred-and-eighty HF patients were included. Only 52% underwent screening for iron deficiency, among whom 48% were identified as iron deficient. Screening rates were lower in outpatient settings. Among eligible patients, 34% received appropriate iron therapy; 18% received intravenous iron and 16% oral iron. Patients receiving intravenous iron showed greater improvement in NYHA functional class and lower hospitalization rates. Major barriers included limited availability of intravenous iron, financial constraints, and lack of standardized protocols.

Conclusions: Significant gaps exist in guideline-recommended screening and management of iron deficiency among HF patients. Standardized protocols, improved access to intravenous iron, and clinician education are needed to improve adherence and patient outcomes.

A study on demographic and patient characteristics, aetiology, treatment and prognosis among hospitalised patients with pyelonephritis in Sri Lanka

Manilgama SR^{1,2}, Jayasinghe K³, Narangoda E⁴, Fonseka CL⁵, Gunasekara HRP⁶, Hettiarachchi NM⁷, Mayurathan P⁸, Premawardana N⁹, Jegathesan N¹⁰, Kumarihamy P¹¹, Perera N^{1,2}, Handagala DMNR¹, Hewage ND¹, Wellappuli WADY¹

¹Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura

²Colombo South Teaching Hospital

³National Hospital Kandy

⁴National Institute of Infectious Diseases

⁵Department of Medicine, Faculty of Medicine, University of Ruhuna

⁶District General Hospital Nuwara Eliya

⁷Teaching Hospital Peradeniya

⁸Faculty of Health-Care Sciences, Eastern University

⁹Teaching Hospital Anuradhapura

¹⁰Teaching Hospital Jaffna

¹¹Department of Medicine, Faculty of Medicine, Wayamba University of Sri Lanka

Introduction and Objectives: Acute pyelonephritis is upper urinary tract infection (UTI) associated with substantial morbidity and increasing antimicrobial resistance. This multicentre study described the clinical profile, risk factors, microbiology, management, and outcomes of hospitalised pyelonephritis in Sri Lanka.

Methods: A cross-sectional study was conducted among adults with pyelonephritis admitted to nine tertiary care hospitals in Sri Lanka from July 2025 to March 2026. Consecutive patients were recruited, and data were collected using a structured electronic questionnaire. Clinical and laboratory characteristics were analysed using descriptive and inferential statistical tests; Chi-square/Fisher's Exact tests compared categorical variables; Mann–Whitney U tests assessed continuous variables.

Results: Out of 443 patients, mean age was 55.1 years (SD 16.0; n=443); 27.3% were males and 72.7% were females. 62.1% had diabetes and 32.5% had previous UTIs. Median symptom duration before admission was 3 days; predominant symptoms were fever, chills, nausea/vomiting, and loin pain. Haemodynamic compromise occurred in 25.3% and was significantly associated with higher inflammatory markers. Urine culture was performed in 89.6%, with 23.2% yielding significant growth, mainly coliforms. In 14.0% of cases antibiotics were adjusted based on culture and sensitivity results. AKI occurred in 26.9% and septic shock in 5.9%. Comorbid diabetes was significantly associated with a greater than twofold increased risk of acute kidney injury (OR = 2.285, 95% CI: 1.423–3.670, p=0.001) and accounted for all observed cases of emphysematous pyelonephritis within the cohort (p=0.048).

Conclusion: Hospitalised pyelonephritis in Sri Lanka mainly affects middle-aged women with diabetes and complicated by AKI and severe systemic illness.

Patient profile and clinical outcome of patients admitted with non-ST-elevation myocardial infarction: a multicentre registry study from Sri Lanka

Manilgama SR^{1,2,3}, Jayasinghe K^{3,4}, Hettiarachchi NM^{3,5}, Ralapanawa U^{3,5}, Gunasekara HRP^{3,6}, Nugara VA³, De Zoysa W^{3,7}, Matthias AT^{1,2,3}, Mettananda C^{3,8}, Jayasundara AJMK^{3,8}, Jegathesan N^{3,9}, Premawardana N^{3,10}, Seneviratne MP^{3,11}, Veerasuthen T^{3,12}, Bandusiri RP^{3,13}, Mayurathan P^{3,14}, Lekamwasam S^{3,7}

¹Department of Medicine, University of Sri Jayewardenepura

²Colombo South Teaching Hospital

³Sri Lanka College of Internal Medicine

⁴National Hospital Kandy

⁵Teaching Hospital Peradeniya

⁶District General Hospital, NuwaraEliya

⁷Teaching Hospital Karapitiya

⁸North Colombo Teaching Hospital Ragama

⁹Teaching Hospital Jaffna

¹⁰Teaching Hospital Anuradhapura

¹¹National Hospital of Sri Lanka

¹²Base Hospital Panadura

¹³Teaching Hospital Badulla

¹⁴Teaching Hospital Batticaloa

Introduction: Data on clinical outcomes of patients admitted with non-ST-elevation myocardial infarction (NSTEMI) in South Asia remain limited. We aimed to characterise patient profile, in-hospital complications, and 9–12-month outcomes of patients admitted with NSTEMI in Sri Lanka.

Methods: This multicentre registry included patients admitted with incident NSTEMI to 13 secondary and tertiary care hospitals in 7 provinces in Sri Lanka. Baseline characteristics, in-hospital complications, investigations, medications prescribed at discharge and clinical outcomes during follow-up were described. On admission risk scores (GRACE, TIMI) were calculated. Multivariable logistic regression was performed to identify predictors of post-discharge mortality.

Results: Mean (SD) age of patients (n=878, male 56.9%) 65.4 (11.9) years and 52.5% were aged >65 years. In-hospital complications included acute pulmonary oedema (27.9%), heart failure (14.4%), arrhythmia (6.6%), and cardiogenic shock (3.3%), with in-hospital mortality of 1.2%. Coronary angiography during index admission was performed in only 3.6%. Follow up data were available in 574 patients. At follow-up, mortality was 21.5%, recurrent angina 43.4%, dyspnoea 47.3%, and readmission 37.1%. Age (OR 1.05 per year; 95% CI 1.02–1.08, p=0.002) independently predicted mortality, while baseline GRACE score remained significant in sensitivity analysis (OR=1.02 per point; 95% CI 1.01–1.03, p=0.003). No baseline variable independently predicted readmission.

Conclusions: NSTEMI in Sri Lanka is characterised by an older, high-risk population, frequent heart failure-related complications, low utilisation of invasive strategies, and substantial post-discharge mortality

and morbidity. These findings highlight critical gaps in the continuum of care and underscore the need for improved risk-stratified management and follow-up in lower-middle-income settings.

PP292

Admission clinical and laboratory factors associated with persistent chikungunya joint symptoms at three months: a Sri Lankan hospitalised cohort

Kothalawala KGD¹, Perera MHMTS¹, Narangoda E¹, Wimalasundera AR², Perera HNT¹, Muthugala MARV³, Wettasinghe I⁴, Jayathilake AVCH⁵, Liyanage NM⁶, Mapalagamage M⁷, Lokunarangoda NC², Tissera H⁸, Wijewickrama A², Idampitiya D¹

¹Centre for Research and Training, National Institute of Infectious Diseases, Gothatuwa, Sri Lanka

²Faculty of Medicine, University of Moratuwa, Sri Lanka

³Medical Research Institute, Ministry of Health, Colombo 08, Sri Lanka

⁴Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

⁵The National Hospital of Sri Lanka, Colombo 10, Sri Lanka

⁶Department of Microbial Infection and Immunity, Ohio State University, Ohio, United States

⁷Department of Zoology and Environmental Sciences, Faculty of Science, University of Colombo, Sri Lanka

⁸Epidemiology Unit, Ministry of Health, Sri Lanka

Background: The 2024–2025 chikungunya (CHIKV) outbreak in Sri Lanka caused substantial inpatient morbidity, with persistent arthropathy the dominant chronic sequela. Admission factors associated with three-month chikungunya joint symptoms are poorly characterised locally.

Methods: PCR-confirmed chikungunya inpatients at the National Institute of Infectious Diseases underwent structured telephone follow-up at three months. The outcome was self-reported joint pain at follow-up. Neuropathic symptoms included numbness, paraesthesia, burning soles, pins-and-needles, or allodynia. Small-joint involvement comprised clinician-documented tenderness or swelling of the hand (MCP/PIP/DIP), wrist or foot (MTP/PIP/DIP). Logistic regression assessed associations.

Results: Of 152 patients, 95 (62.5%) completed follow-up, and 92 had classifiable outcomes; 61/92 (66%) reported persistent joint symptoms. Participants were more often female than non-participants (51% vs 24%; $p=0.005$), while fever duration, white cell count and platelet count did not differ. Female sex (67% vs 23%; OR 7.03, 95% CI 2.59–19.05) was strongly associated with persistence; median age was 52 years in both sexes. Older age (53 vs 43 years; $p=0.047$), neuropathic symptoms (OR 4.92, 1.82–13.33), small-joint tenderness (OR 4.16; $p=0.002$), small-joint swelling (OR 6.56; $p=0.016$) and lymphopenia $<0.8 \times 10^9/L$ (OR 3.02; $p=0.016$) were also associated. PCR cycle-threshold values (28 vs 32; $p=0.21$), neutrophil count, neutrophil-to-lymphocyte ratio, C-reactive protein and transaminases did not differ. Independent associations were female sex (aOR 7.53, 2.49–22.77; $p<0.001$), neuropathic symptoms (aOR 4.02, 1.30–12.38; $p=0.015$) and lymphopenia (aOR 3.39, 1.15–9.98; $p=0.027$); AUC 0.81.

Conclusion: Female sex, neuropathic symptoms and lymphopenia were independently associated with persistent joint symptoms at three months. Selection bias and residual confounding cannot be excluded.

Vaccine hesitancy: a phenomenological study among Public Health Midwives in Colombo district

Gunasekera KM¹, Ranasinghe RDS², Malawaraarachchi BP², Welgama WDP², Prabodhya CDG³, Thilakasiri WUO³, Dharmakeerthi BDTR⁴, Nethmini WGU⁴, Jayasundara JPSC¹, Jayasinghe JAYB¹, Lakshika SLA¹, Makeswaran V⁴, Seneviwickrama KLMD²

¹ *Department of Microbiology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

² *Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

³ *Centre for Cancer Research, University of Sri Jayewardenepura, Sri Lanka*

⁴ *Independent researchers*

Introduction & objectives: Vaccine hesitancy is an emerging global public health issue requiring identification of its causes to guide targeted interventions. In Sri Lanka, localized pockets of hesitancy have been reported. This study aimed to explore determinants of childhood vaccine hesitancy from the perspective of Public Health Midwives (PHMs) in selected Medical Officer of Health (MOH) areas.

Method: A qualitative study was conducted among purposively sampled PHMs from four MOH areas in Colombo District identified through prior key informant interviews. Key informant interviews were conducted as part of the data collection process to obtain the perspectives of public health officials on vaccine hesitancy. These interviews helped identify areas where hesitancy was known to be prevalent, and Public Health Midwives (PHMs) were subsequently recruited from those areas for the study. Inclusion criteria were ≥ 6 months' experience in the area. Data were collected through focus group discussions using semi-structured, in-depth interviews conducted by trained researchers until saturation. Discussions were audio-recorded, transcribed verbatim, and analysed thematically, including non-verbal cues. Ethical approval from University of Sri Jayewardenepura (REC: 33/24).

Results: Twenty-five PHMs aged 27–65 (mean=38.28, SD=12.73) were interviewed from Gothatuwa, Kolonnawa, Dehiwala, Ratmalana MOH areas. Duration of work ranged from 0.5 to 33 years (mean=10.52, SD=11.73).

Five key themes identified: **(1) Socio-cultural/religious influences:** family hierarchy and decision-making (n=11); religious beliefs (n=15); clustering of hesitancy (n=3); no hesitancy among Sinhalese (n=4). **(2) Behavioural factors and low perceived importance:** low prioritisation of vaccination (n=8); family non-vaccination tradition (n=1) **(3) Misinformation and risk perception:** vaccine concerns (n=5); fear of adverse effects (n=2); misinformation from health practitioners (n=5); rumours/anecdotes (n=6). **(4) Socioeconomic barriers:** childcare constraints (n=2); drug addiction (n=6); poverty (n=2). **(5) Language barriers** (n=2).

Conclusion: Vaccine hesitancy was influenced by socio-cultural, religious, behavioural, informational and socioeconomic factors, with religious beliefs, family decision-making dynamics, misinformation, and concerns about vaccine safety identified as prominent contributors.

Targeted, culturally appropriate interventions are needed to address these barriers and improve vaccine uptake.

An overview of the diagnosis and management of paediatric urinary tract infections: A descriptive observational study from a Teaching hospital, Colombo, Sri Lanka

Boralugoda VC¹, Eumini SKDK¹, Rodrigo SS¹, Mettananda DSG², Gunaratna GPS¹, Badanasinghe CN¹.

¹*Department of Medical Microbiology, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

²*Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

Introduction: Urinary tract infection (UTI) is a potentially serious bacterial infection in childhood. Although, timely commencement of appropriate antibiotics is essential, increasing antibiotic resistance complicates empiric antibiotic selection. The study aimed to assess the challenges encountered in managing paediatric UTIs.

Method: A descriptive observational study was conducted among children managed as UTIs at Colombo North Teaching Hospital over a two-year period commencing August 2023. Data were collected using an interviewer administered questionnaire and follow-up was conducted on day 7 and at 1, 3, and 6 months.

Results: A total of 106 children managed as UTIs were included; 60 (56.6%) were female, and 60 (56.6%) were under 4 years. Urinalysis was suggestive of UTI in 70(80.2%) and culture confirmed infection in 40(42.5%). Nineteen (17.9%) had received antibiotics prior to sample collection. Coliforms were isolated in 35(37.2%) cases; non-susceptibility to amoxicillin, co-amoxiclav, cefotaxime, nitrofurantoin, and nalidixic acid was observed in 4(11.4%), 18(51.4%), 13(37.1%), 8(22.8%), and 12(34.3%) isolates, respectively. Susceptibility to gentamicin and meropenem were demonstrated in 13(37.1%), and 14(40%). Ultrasonography was suggestive of urosepsis in 38 (35.8%).

Empiric antibiotics used included co-amoxiclav, cefotaxime, cefuroxime, gentamicin, and meropenem. Antimicrobial modification was required in 34(37.7%), with escalation to meropenem in 10(29%) and to cefotaxime in 11(32.3%). Eight children had recurrent symptoms within 3 months, with three required hospital admissions.

Conclusions: Coliforms remain the predominant cause of UTIs, with substantial resistance to recommended empiric antibiotics. Challenges with UTI management include non-specific symptoms, diagnostic uncertainty, limitations in laboratory testing, and selecting appropriate antibiotic in a setting of antibiotic-resistant.

Assessment of redundant antibiotic coverage in selected medical and surgical wards of Colombo South Teaching Hospital of Sri Lanka

Imalkith SAMA¹, Perera N²

1 Department of Pharmacy and Pharmaceutical Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura

2 Department of Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura

Introduction and objectives: Redundant Antibiotic Therapy (RAT) is ≥ 2 antibiotics that are overlapping in spectrum of activity without clinical justification. Aim of the study was to determine the prevalence and associated factors of RAT in medical and surgical wards of Colombo South Teaching Hospital (CSTH)

Methods: The study was a retrospective cross sectional study through consecutive sampling from reviewing discharged bed head tickets with concurrent systemic antibiotics with true overlapping potential from 1st of September 2025 to 1st of November 2025 to get 80 records in medical and surgical wards in CSTH with RAT. (10 Events per variable) Overlapping spectrum of antibiotics, AmRAT structured tool and national antibiotic guidelines were used to identify RAT. Records with antibiotics for regular and surgical prophylaxis were excluded. Chi square and logistic regression were used to identify significant associations. $P < 0.05$ was determined as significant.

Results: The prevalence of RAT was 24 %. (N=350) RAT prevalence in the surgical wards (n=64, 28.70%) were not significantly higher compared to medical wards (n=24, 15.75%) ($p > 0.05$). Co-amoxiclav and clindamycin was the most common redundant combination (38.1%). Most frequently associated infection with RAT was cellulitis (54.76% of RAT). Multivariate logistic regression identified age (Per year) (AOR=1.06 95% CI 1.028-1.094: $p < 0.001$), duration of therapy (> 2 days) (AOR=1.864 95% CI 1.453-2.391: $p < 0.001$) and Availability of culture results (AOR=0.02 95% CI 0.003-0.129: $p < 0.001$) as associated factors for RAT.

Conclusion: The results suggest that stewardship measures should be aimed at enhancing compliance with local guidelines and diagnostic capacities to avoid unnecessary exposure to antibiotics.

Novel Measles Genotype in Sri Lanka

Gunaratne MDPH¹, Gankanda P¹, Kalpanee JK¹, Liyanapathirana A², Samaraweera B¹, Abeynayake JI¹

¹*Medical Research Institute*

²*Epidemiology Unit*

Introduction and Objectives: With the global elimination targets for measles, currently, of the 24 genotypes, only 2 are circulating worldwide: D8 and B3. Sri Lanka achieved measles elimination status in 2019, with the last indigenous case reported in 2016. However, sporadic measles cases with the D8 genotype were observed from May 2023 onwards. This study aimed to confirm measles infection in a clinically suspected case and characterise the viral genotype in the context of ongoing national surveillance.

Methods: Throat swabs, a serum sample, and a urine sample from a 3-year-old unvaccinated child with suspected measles, collected within 5 days of rash onset, were received at the National Measles Reference Laboratory (NMRL) in March 2026. Samples were tested according to the NMRL testing algorithm using WHO-validated test kits. Amplification products were sent to the Regional Reference Laboratory, India for sequencing. Sequences were analyzed, and a phylogenetic tree was generated at NMRL.

Results: Polymerase chain reaction from swabs and urine was positive for measles RNA, and Enzyme-linked Immunosorbent Assay from serum was positive for measles IgM. Sequencing identified the genotype as B3. Phylogenetic clustering done via the MeaNS2 database identified that this strain closely resembles a strain circulating in Pakistan.

Conclusions: This study identified a genotype distinct from the previously detected genotype in Sri Lanka. Phylogenetic analysis confirmed that the case is imported. These findings highlight the importance of early molecular confirmation and sequencing, which is crucial in preventing the re-establishment of chain transmission in the post-elimination setting of Sri Lanka.

Challenges in Treating Carbapenem-Resistant Infections in Sri Lanka: A Qualitative Study

Wickramasinghe SS ^{1,4}, Abusalem L ^{2,3}, Cutshaw M ³, Weerasinghe S ⁴, Nagahawatte A ^{1,2,4}, Bodinayake C ^{1,2,4}, Fonseka L ^{1,4}, Kurukulasooriya R ⁴, Woods C ^{2,4}, Corneli A ², Tillekeratne G ^{2,4}

¹*Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka*

²*Duke Global Health Institute, Durham, North Carolina, USA*

³*Duke University Hospital, Durham, North Carolina, USA*

⁴*Duke-Ruhuna Collaborative Research Center, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka*

Introduction and Objectives: Carbapenem-resistant organisms (CROs) pose a growing threat in Sri Lanka, where limited diagnostic capacity and constrained access to last-line antibiotics complicate clinical management. There is limited qualitative evidence on how clinicians navigate these challenges in real-world settings. This study explored the experiences of microbiologists and physicians managing CRO infections across Sri Lanka.

Methods: We conducted semi-structured interviews with 24 participants (12 microbiologists, 12 physicians) across teaching, district, and base hospitals. Participants were purposively sampled to reflect diverse clinical settings and experience levels. Interviews were audio-recorded, transcribed, and analyzed using thematic analysis using NVivo (Lumivivo 2024, version 14.0) with iterative codebook development and intercoder reliability to ensure rigor.

Results: Three major themes were evident: (1) diagnostic and therapeutic constraints, including limited access to timely microbiology results and restricted antibiotic options, often result in empiric and combination therapy; (2) health system and workforce challenges, including staffing shortages, procurement barriers, and disparities between public and private sectors complicate management; and (3) need for increased reliance on stewardship and infection prevention strategies in the context of limited treatment options.

Conclusions: CRO management in Sri Lanka is shaped by systemic constraints across diagnostics, workforce, and infrastructure. Expanding antibiotic access alone is insufficient. Strengthening laboratory capacity, workforce training, infection prevention, and stewardship programs will be critical to sustainably contain CROs. These findings provide locally relevant evidence to inform national AMR policy and clinical practice.

Self-Breast Examination Practice Among Female Healthcare Workers at Teaching Hospital Kandy: A Sub-Analysis of a Gynecological Cancer Screening Survey

Lakshitha KH¹, Sendanayakage SU², Kularathna NK³, Liyanage VDP⁴

¹*Department of Biochemistry, Faculty of Medicine, University of Peradeniya.*

²*German-Srilankan Friendship Hospital for women, Galle*

³*Department of Radiology, Faculty of Medicine, University of Peradeniya.*

⁴*Department of Surgery, Faculty of Medicine, University of Peradeniya.*

Introduction and Objectives This study assessed SBE practice, frequency, and the influence of education level, family history of breast cancer, and menstrual status on SBE practice among female healthcare workers.

Method: A cross-sectional study was conducted among 202 female healthcare workers. Data were collected on SBE practice, SBE frequency, highest education level (GCE O/L, GCE A/L, Degree or above), family history of breast cancer (yes/no), and menstrual status. Chi-square tests, Mantel-Haenszel linear-by-linear association, Kruskal-Wallis test, and Fisher's Exact Test were used. Statistical significance was set at $p < 0.05$.

Results: Of 202 participants, 147 (72.8%) practiced SBE, with quarterly practice being the most common frequency (44.9%). Education level was significantly associated with SBE practice ($\chi^2=7.549$, $df=2$, $p=0.023$); GCE O/L holders had the lowest practice rate (53.1%), compared to GCE A/L (75.5%) and Degree or above (78.1%). Degree holders were 3.15 times more likely to practice SBE than GCE O/L holders (OR=3.15, 95% CI: 1.09–9.09), and GCE A/L holders were 2.72 times more likely (OR=2.72, 95% CI: 1.05–7.05). The Mantel-Haenszel test confirmed a significant linear trend ($M^2=5.210$, $df=1$, $p=0.023$). No significant association was found between family history of breast cancer and SBE practice (Fisher's Exact $p=0.477$; OR=1.575, 95% CI: 0.560–4.425), or between menstrual status and SBE practice ($p=1.000$; OR=0.960, 95% CI: 0.486–1.897).

Conclusions: Education level significantly influences SBE practice among female healthcare workers, while family history and menstrual status do not. Targeted SBE educational interventions for less-educated healthcare staff are recommended to improve early breast cancer detection.

Exploring Preliminary Tyrosinase and Cholinesterase Inhibitory Activities of Essential Oils from *Myristica fragrans* Houtt. Extracted through Hydrodistillation and Solvent-Free Microwave Extraction
Agalawatte ASMSSB¹, Liyanaarachchi GD²

¹ Department of Chemistry, Faculty of Science, University of Kelaniya, Sri Lanka

² Industrial Technology Institute, Malabe, Sri Lanka

Introduction and Objective: *Myristica fragrans* Houtt. is a spice with pharmacological potential due to its bioactive properties. This study aimed to determine the preliminary tyrosinase, acetylcholinesterase (AChE), and butyrylcholinesterase (BChE) enzyme inhibitory activities of its essential oils extracted by hydrodistillation and Solvent-Free Microwave extraction (SFME) for treatment of potential hyperpigmentation and neurodegenerative conditions.

Methodology: Leaves, mace, seed kernel, and mesocarp of *M. fragrans* collected from Ranawana, Sri Lanka, were used. Essential oils were obtained using hydrodistillation and SFME, together with commercial steam-distilled seed-kernel oil and seed-oleoresin samples. Tyrosinase, BChE, and AChE inhibitory assays were performed using standard protocols at a test concentration of 500 µg/mL. Percentage inhibitions and IC₅₀ values were calculated where appropriate. Statistical analysis was done using one-way ANOVA followed by Tukey's HSD post-hoc test.

Results: Hydrodistilled mace essential oil showed significantly high tyrosinase inhibition ($42.17 \pm 0.83\%$), AChE inhibition ($35.26 \pm 0.26\%$) and low BChE inhibition ($11.30 \pm 0.90\%$). Similarly, SFME extracted seed-kernel essential oil showed similar tyrosinase inhibition ($42.62 \pm 0.94\%$) and significant AChE inhibitory activity (IC₅₀ = 368.38 ± 0.17 µg/mL) with BChE inhibition of $15.56 \pm 0.96\%$. However, steam-distilled seed oil showed no detectable activity at 500 µg/mL while seed-oleoresin showed significantly low AChE inhibition (IC₅₀ = 712.11 ± 1.28 µg/mL), but no tyrosinase or BChE inhibition.

Conclusion: Hydrodistilled mace essential oil, SFME seed-kernel essential oil and oleoresin of *M. fragrans* may be promising natural enzyme inhibitors with preliminary inhibitory potential that could be further optimized for hyperpigmentation and neurodegenerative conditions.

Awareness of Self-titration of Insulin, Practices, and Usage of Glucometers among Patients with Type 2 Diabetes Mellitus attending National Hospital Galle.

Abeyaratne DDK¹, Weeranayake HSS¹, Thabrew I¹, Wijewickrama C¹, Weerakkody M², Wijenayaka WW³, De Silva OPKY³, Wickramasinghe BVJ³, De Silva DHH³, Pathayala PRCS¹, Wijenayaka PA¹, Fonseka CL⁴

¹*Department of Physiology, Faculty of Medicine, University of Ruhuna*

²*National Hospital Galle, Sri Lanka*

³*Faculty of Medicine, University of Ruhuna*

⁴*Department of Medicine, Faculty of Medicine, University of Ruhuna*

Introduction and Objectives: Safe insulin self-titration requires education and glucose monitoring, yet local evidence on patient readiness is limited. This study assessed insulin self-titration awareness, glucometer practices, barriers, and associated factors among adults with type 2 diabetes using insulin.

Method: A descriptive cross-sectional interviewer-administered questionnaire survey was conducted among adults aged ≥ 25 years with type 2 diabetes on insulin attending outpatient diabetes/medical clinics. Demographic and clinical data, insulin practices, dose-adjustment responses, glucometer ownership, glucose recording, and barriers were analyzed using descriptive statistics, Fisher's exact/Chi-square tests, and logistic regression.

Results: Among 96 respondents, mean age was 62.1 ± 10.5 years, and 60.0% had diabetes for >10 years. Previous awareness on insulin self-titration was reported by 24/96 (25.8%); from healthcare specialists (18/24), general practitioners (5/24) and a nurse (1/24), yet with no formal way of teaching. Current self-titration was uncommon (12/96, 12.9%), with most participants relying on physician-led dose adjustment. Glucometer ownership was 44/96 (46.8%), yet only 8/83 (9.6%) recorded glucose values. Across eight scenario-based questionnaire items, 69/96 (71.9%) gave no directionally appropriate insulin dose-adjustment responses, indicating limited overall awareness. HbA1c data were limited and suggested poor control overall, without a clear physician-only versus self-titration comparison. Key barriers were insulin/diabetes knowledge gaps, belief in safer physician-led titration, complex instructions, and low confidence. Previous awareness was linked to higher self-administration, glucometer ownership, reported hypoglycaemia, and current self-titration.

Conclusions: Awareness and practice of insulin self-titration were low despite long diabetes duration. Structured, literacy-sensitive education with written algorithms and routine glucose recording may improve patient-led insulin adjustment.

Quality of life and its determinants among type 2 diabetic patients followed up at secondary and tertiary care institutions in Kalutara, Sri Lanka

Talagala IA¹, Anuranga MAK¹, Amarathunge SS¹, Sumanasekara SAYP¹

¹*Department of Public Health and Family Medicine, Faculty of Medicine, University of Moratuwa, Sri Lanka*

Introduction and objectives: Diabetes is a leading non-communicable disease, with adverse impacts on physical and mental status of individuals, affecting their overall quality of life (QoL). Thus, this study assessed the QoL and its determinants among type 2 diabetics in Kalutara.

Methods: A descriptive cross-sectional study was conducted among 417 adult diabetic patients followed up at medical and endocrine clinics of secondary and tertiary care institutions in Kalutara, selected through stratified probability proportionate systematic sampling, where the stratification was based on the hospital and respective clinics. A self-administered questionnaire, including locally validated WHOQOL-BREF questionnaire was used. Multivariate analysis was done using Logistic regression.

Results: Response rate was 100%. Of them, 58.8% (95%CI=53.9-63.5) had satisfactory overall QoL and 66.2% (95%CI=61.4-70.7) had satisfactory overall health status.

Depression (aOR=2.11;95%CI=1.19-3.72) predicted poor overall QoL. Being employed (aOR=0.47; 95%CI=0.25-0.86), complications of diabetes (aOR=1.90;95%CI=1.10-3.26), uncontrolled diabetes (aOR=1.90;95%CI=1.22-2.96), anxiety (aOR=3.06;95%CI=1.87-5.01), and depression (aOR=2.33;95%CI=1.25-4.34) predicted poor overall health.

Living alone (aOR=2.58;95%CI=1.21-5.50), complications of diabetes (aOR=2.33;95%CI=1.36-3.99), depression (aOR=2.21;95%CI=1.18-4.15), and anxiety (aOR=2.84;95%CI=1.75-4.62) predicted poor physical QoL. Urban residence (aOR=1.92; 95%CI=1.10-3.36), depression (aOR=2.22;95%CI=1.13-4.37) and anxiety (aOR=3.41;95%CI=1.93-6.03) influenced poor psychological QoL. Age <60years (aOR=2.32;95%CI=1.06-5.06), unhealthy BMI (aOR=3.28; 95%CI=1.10-9.74) and anxiety (aOR=2.56;95%CI=1.16-5.64) influenced poor social relationships. Urban residence (aOR=2.81;95%CI=1.70-4.65), living alone (aOR=2.71; 95%CI=1.27-5.82), smoking (aOR=5.13;95%CI=1.97-13.38), and no exercises (aOR=2.48; 95%CI=1.20-5.14) predicted poor environmental QoL.

Conclusion- Overall QoL and health status among diabetic patients were satisfactory. Having depression and anxiety, certain demographic, behavioural, clinical and social factors significantly impair the QoL among diabetic patients. Incorporation of QoL assessment is recommended for holistic diabetic management.

Comparison of Friedewald and Sampson Equations for Estimation of LDL-Cholesterol Against Direct Measurement in a Sri Lankan Clinical Laboratory Population: A Pilot Analytical Study

Abey Suriya V¹, Chandrasena LG², Lakshan MTD³, De Mel VTK⁴

¹*Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo* ²*Nawaloka*

²*Hospitals Research and Education Foundation*

³*Nawaloka Hospitals Research and Education Foundation*

⁴*Nawaloka Hospitals Research and Education Foundation*

Introduction

Accurate low-density lipoprotein cholesterol (LDL-C) estimation is vital for cardiovascular risk management. While the Friedewald formula is traditional, newer equations like Sampson's may offer superior accuracy, especially in patients with high triglycerides or low LDL-C. However, local evidence from Sri Lankan laboratory settings is limited.

Objective

To compare the performance of the Friedewald and Sampson equations against directly measured LDL-C in a Sri Lankan clinical laboratory population.

Methods

This pilot analytical study was designed using a dataset of 180 adult lipid profiles with demographic and clinical variables. LDL-C was estimated using the Friedewald and Sampson equations and compared with directly measured LDL-C.

Results

Mean direct LDL-C was 108.5 ± 28.8 mg/dL. Mean estimated LDL-C was 105.0 ± 29.2 mg/dL by Friedewald and 108.6 ± 29.0 mg/dL by Sampson. Correlation with direct LDL-C was high for both equations but slightly better for Sampson than Friedewald ($r = 0.981$ vs 0.978). Friedewald showed a mean bias of -3.49 mg/dL, whereas Sampson showed minimal bias ($+0.12$ mg/dL). Sampson also demonstrated lower Mean Absolute Error (MAE) (4.43 vs 5.61 mg/dL) and Root Mean Square Error (RMSE) (5.58 vs 6.95 mg/dL). In participants with triglycerides ≥ 200 mg/dL ($n = 39$), Sampson performed better than Friedewald, with lower MAE (4.44 vs 7.79 mg/dL) and RMSE (5.67 vs 8.97 mg/dL).

Conclusion

The Sampson equation demonstrated closer agreement with direct LDL-C than the Friedewald formula in this pilot dataset, particularly in patients with elevated triglycerides. A larger retrospective validation study using real Sri Lankan laboratory data is warranted.

Prevalence and determinants of poor sleep quality in adults with diabetes mellitus: A hospital-based study in Colombo

Ariyaratne PBL¹ , Shavindhi MRM¹ , Hapuarachchi CL¹ , Jasveena A¹ , Wickramasinghe WKSD¹ , Dheerasinghe DSAF²

¹ *Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka*

² *National Dengue Control Unit, Ministry of Health, Sri Lanka*

Introduction and Objectives: Poor sleep quality is a significant but overlooked issue for diabetic patients, with limited data available regarding the Sri Lankan population. This study aimed to describe the quality of sleep and its associated factors among adult patients with diabetes mellitus attending the diabetic clinic in a selected hospital of the Colombo District.

Method: A cross-sectional study was conducted among 384 adult diabetic patients at the diabetic clinic of Colombo South Teaching Hospital. Data were collected using interviewer-administered questionnaires and clinical data extraction sheets. Sleep quality was assessed using the Pittsburgh Sleep Quality Index; a global score greater than five indicated poor sleep. Associations between sleep quality and sociodemographic, clinical, behavioral, and environmental factors were examined using appropriate statistical tests.

Results: A total of 60.9% of participants were classified as poor sleepers. Significant associations were observed with gender($p=0.012$), educational level($p<0.001$), marital status($p=0.022$), number of diabetes-related complications($p<0.001$), nocturia($p<0.001$), dyslipidemia($p=0.009$), physical inactivity($p<0.001$) and noise level in the sleeping environment($p=0.003$). Employment status, monthly family income, hypertension, duration since diagnosed with diabetes, alcohol consumption, caffeine consumption, smoking and presence of a bed partner were not significantly associated with sleep quality.

Conclusions: Poor sleep quality is a multidimensional issue driven by an interplay of clinical, sociodemographic, behavioral, and environmental factors, necessitating its integration into holistic diabetes management. These findings suggest a need for diabetic clinics to include routine sleep assessments and practical advice in their care, while future research could expand to cover both urban and rural areas across the country.

Can Glycated Albumin and Fructosamine Replace HbA1c When It Fails? A Systematic Review and Meta-analysis of Diagnostic Accuracy

Fernando KM ^{1,2}, Kottahachchi DC ³, Dayarathna HLP ⁴, Rathnaweera CL ⁴, Dayanath BKTP ⁵, Perera S ¹, Premawardhena A ^{6,7}

¹*Department of Biochemistry and Clinical Chemistry, Faculty of Medicine, University of Kelaniya, Sri Lanka*

²*NK Ceylon Institute of Medical Research, Negombo, Sri Lanka*

³*Department of Physiology, Faculty of Medicine, University of Kelaniya, Sri Lanka*

⁴*Faculty of Medicine, University of Kelaniya, Sri Lanka*

⁵*Dorevitch Pathology, Melbourne, Victoria, Australia*

⁶*University Medical Unit, Colombo North Teaching Hospital, Ragama, Sri Lanka*

⁷*Department of Medicine, Faculty of Medicine, University of Kelaniya, Sri Lanka*

Introduction and objectives: HbA1c is central to diabetes diagnosis but becomes unreliable in conditions affecting erythrocyte lifespan. Identifying robust alternative biomarkers is therefore a critical unmet clinical need. Glycated albumin (GA) and fructosamine (FA), reflecting short-term glycemia, have emerged as potential substitutes; however, their diagnostic performance remains uncertain.

Method: We conducted a systematic review and meta-analysis of diagnostic test accuracy studies following PRISMA-DTA guidelines. PubMed, Web of Science and Scopus databases were searched from inception to December 2025. Studies evaluating GA or FA against oral glucose tolerance test (OGTT) were included. Pooled sensitivity and specificity were estimated using a bivariate random-effects model, and hierarchical summary receiver operating characteristic (HSROC) curves were generated.

Results: Fifteen studies involving 14,576 participants were included. GA demonstrated a pooled sensitivity of 0.67 (95% CI: 0.53–0.79) and specificity of 0.87 (95% CI: 0.77–0.94), with an AUC of 0.84. FA showed a pooled sensitivity of 0.71 (95% CI: 0.55–0.83) and a notably higher specificity of 0.93 (95% CI: 0.87–0.96), with an AUC of 0.92. Across studies, both biomarkers consistently exhibited high specificity but only moderate sensitivity; evaluated diagnostic thresholds ranged from 12.8% to 21.6% for GA and 192 to 310 $\mu\text{mol/L}$ for FA, with threshold variability contributing to heterogeneity.

Conclusions: Neither FA nor GA is suitable as a universal replacement for HbA1c or OGTT. However, their consistently high specificity, particularly for fructosamine, supports a targeted, confirmatory (rule-in) role in diabetes diagnosis when HbA1c is unreliable.

PP305

Association of age, body mass index, and family history with glycemic status in pregnancy: A prospective cohort study in two tertiary care hospitals in Western Sri Lanka.

Sasikanth T.¹, Katulanda P.¹ Wickramasinghe W.K.V.K.¹, Fernando D.R.¹, Kaluarachchi A.², Dodampahala S.H.², Jayawardena D.B.I.A.², Ranaweera A.K.P.², Rishard M.R.M.², Jayasundara C.², Piyadigama I.², Katulanda G.W.³, Kadotgajan T.⁴, Lanerolle S.⁴.

¹Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka.

²Department of obstetrics and gynecology, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka.

³National Hospital of Sri Lanka, Colombo, Sri Lanka.

⁴Castle Street Hospital for Women, Colombo, Sri Lanka.

Introduction: Maternal risk factors are key determinants of hyperglycemia in pregnancy. Comparing these factors across different glycemic groups may help identify high-risk women who would benefit from early intervention and targeted screening.

Objectives: To compare maternal risk factors among normoglycemic women, those with gestational diabetes mellitus (GDM), and those with pre-existing diabetes in pregnancy.

Methods: A prospective antenatal cohort study was conducted among 1200 pregnant women attending De Soysa and Castle Street Hospitals between 2024-2025. Participants were categorized as normoglycemic, GDM and pre-existing diabetes based on American Diabetes Association criteria. Maternal characteristics including age, BMI, and family history of diabetes were compared across groups. Associations were assessed using ANOVA and Chi-square tests as appropriate.

Results: Pre-existing diabetes was identified in 3.25% of participants and newly diagnosed diabetes in 2.17%, giving a combined prevalence of 5.42%. GDM was diagnosed in 18.26%. Mean BMI differed significantly across groups ($p < 0.001$), with higher values in women with pre-existing diabetes ($27.11 \pm 4.73 \text{ kg/m}^2$) and GDM ($25.48 \pm 5.58 \text{ kg/m}^2$) compared with normoglycemic women ($23.69 \pm 4.83 \text{ kg/m}^2$). Mean maternal age also differed significantly ($p < 0.001$) with older age observed in the pre-existing diabetes (31.80 ± 5.18 years) and GDM (29.34 ± 4.95 years) groups compared with normoglycemic women (28.05 ± 4.97 years). A significant association was found between glycemic status and first-degree family history of diabetes ($p < 0.001$), with the highest prevalence among women with pre-existing diabetes (75.0%)

Conclusion: Advanced maternal age, higher BMI, and a positive family history of diabetes are significantly associated with adverse glycemic status in pregnancy. Early risk stratification and targeted screening may support timely intervention and improved maternal-fetal outcomes.

Left ventricular diastolic dysfunction among patients with type 2 diabetes mellitus and its association with cardiac autonomic control: Preliminary findings

Wijesooriya N.¹, Kottahachchi D.¹, Rajapaksha S.², Subasinghe C.², Santha Chandra D.³, Badanasinghe N.⁴, Wickramasinghe R.⁵, Warnakulasuriya T.¹

¹ Department of Physiology, Faculty of Medicine, University of Kelaniya, Sri Lanka

² Colombo North Teaching Hospital, Ragama, Sri Lanka

³ All India Institute of Medicine, New Delhi, India

⁴ Department of Medical Microbiology, Faculty of Medicine, University of Kelaniya, Sri Lanka

⁵ Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction and objectives: Type 2 diabetes mellitus (T2DM) is associated with left ventricular diastolic dysfunction (LVDD), which is an early manifestation of diabetic cardiomyopathy. Cardiac autonomic dysfunction is thought to contribute to LVDD. This study assessed LVDD in patients with T2DM and evaluated the association with heart rate variability (HRV) parameters as a measure of cardiac autonomic control.

Methods: A cross-sectional study was conducted among adults with T2DM. HRV was analysed using time (SDNN, RMSSD, pNN50) and frequency-domain parameters (LF, HF, and LF/HF ratio). Transthoracic echocardiography assessment of diastolic functions included E/A ratio, E/e' ratio, and left atrial volume index. LVDD was defined according to the 2016 American Society of Echocardiography and European Association of Cardiovascular Imaging (ASE/EACVI) guidelines.

Results: 36 T2DM patients were included (mean age 52.7 ± 11.1 years and 36.1% of males), of whom 55.6% (n=20) were diagnosed with LVDD. Patients with LVDD had a longer duration of T2DM (8.47 ± 6.64 vs 4.53 ± 6.12 years, $p = 0.092$) and higher HbA1c levels ($10.20\% \pm 2.21$ vs $7.98\% \pm 2.59$; $p = 0.020$). The E/A ratio positively correlated with RMSSD (Spearman's $\rho = 0.479$, $p = 0.004$) and negatively with the LF (nu) (Spearman's $\rho = -0.352$, $p = 0.038$). LF/HF ratio (Spearman's $\rho = -0.346$, $p = 0.042$) negatively correlated with the E/A ratio.

Conclusion: LVDD was associated with a longer T2DM duration and poorer glycaemic control. Lower vagal parameters and a higher sympathetic influence were associated with poorer diastolic relaxation.

Association of physical activity and other risk factors with Diabetic Peripheral Neuropathy among Sri Lankan adults with Type 2 Diabetes Mellitus

Kumarihamy P¹, Mallikaarachchi V², Karunathilake P², Medagama A³, Dalugama C¹, Aluwihare WBWMRAB³, Dissanayake DMDIB¹, Gunarathne WMSN¹

¹Teaching Hospital, Peradeniya.

²Department of Medicine, Faculty of Medicine, Wayamba University of Sri Lanka.

³Department of Medicine, Faculty of Medicine, University of Peradeniya.

Introduction: Diabetic peripheral neuropathy (DPN) greatly raises the risk of diabetic foot ulcers and amputations. Physical activity is advised for type 2 diabetes mellitus (T2DM), but its link with DPN in South Asians remains unclear. This study examined the association of physical activity and other risk factors with DPN among Sri Lankan adults with T2DM.

Methodology: A cross-sectional prospective observational study was conducted at the diabetes clinic, Teaching Hospital Peradeniya, Sri Lanka for six months. Adults aged 18–70 with T2DM were enrolled. Interviewer-administered questionnaires collected data on sociodemographic, diabetes-related, lifestyle, and footwear factors. Physical activity was measured via the International Physical Activity Questionnaire and reported as Metabolic Equivalent of Task (MET) values. DPN was evaluated using tests for joint position, vibration (128-Hz tuning fork), and pressure (10-g monofilament). Associations were analyzed with t-tests and chi-square tests.

Results: Among 179 participants, mean age was 56.5 ± 7.2 years, 75.4% were female, mean diabetes duration was 8.1 ± 5.4 years, and mean BMI was 26.1 ± 3.7 kg/m². DPN was identified in 53 patients (30%). Compared with those without DPN, patients with DPN had significantly lower total physical activity (mean MET 5566.4 ± 4461.2 vs 7371.0 ± 5656.8 ; $p=0.037$) and higher fasting blood glucose (152.3 ± 62.9 vs 146.4 ± 48.8 mg/dL; $p=0.048$). No significant associations were found with age, sex, diabetes duration, BMI, HbA1c, or categorical physical activity level.

Conclusion: Nearly one-third of adults with T2DM had DPN. Lower total physical activity and higher fasting blood glucose were associated with DPN. Larger studies are needed to confirm these findings and identify modifiable risk factors.

A Descriptive cross-sectional study on glycaemic status of patients undergoing elective surgeries at National Hospital, Kandy

D. Jegavanthan¹, G Amiyangoda³, Hiru Navod Kalansuriya², N. Waidyalankara², Tharindi Lokumarambage², Minhas Thamiam¹, Mohomed Haaris¹, Antonypillai CN¹, Vithana A³

¹ *Diabetes & Endocrinology Unit, National Hospital Kandy*

² *Department of Anaesthesia, National Hospital Kandy*

³ *Department of Pharmacology, Faculty of Medicine, University of Peradeniya*

Background Perioperative hyperglycaemia is common and associated with poor clinical outcomes in diabetic and non-diabetic patients.

Objectives To evaluate perioperative glycaemic variability and its determinants, thereby generating evidence for a clinical care pathway for perioperative hyperglycaemia management in resource-limited settings.

Methods This descriptive cross-sectional study included patients with diabetes mellitus or preoperative hyperglycaemia (capillary blood glucose ≥ 140 mg/dL on two occasions) undergoing elective surgery, excluding cardiac, obstetric, and neurosurgical procedures.

Results Among 424 patients, 392 (92.5%) had pre-existing diabetes and 32 (7.5%) undiagnosed hyperglycaemia. Mean age was 65.2 ± 11.3 years. Preoperatively, 29.1% had above-target glucose (>180 mg/dL), 63.6% were within target (100–180 mg/dL), and 7.2% were below target. Postoperatively, 35.1% recorded glucose <100 mg/dL. Hypoglycaemia was not associated with age, diabetes duration, eGFR, comorbidities, diabetes status, insulin use, or preoperative glucose. Preoperative hyperglycaemia predicted postoperative hyperglycaemia, with 51% versus 69.5% achieving target glucose when preoperative levels were >180 mg/dL versus <180 mg/dL. Patients with undiagnosed hyperglycaemia had higher preoperative mean glucose ($P=0.011$). Insulin use was infrequent: 68 patients (16%) were on preoperative insulin, 20 (29%) received insulin on the morning of surgery, and 5 (7%) intraoperatively. No significant association was observed between insulin use and glycaemic variability.

Conclusions Preoperative hyperglycaemia was a modifiable predictor of perioperative variability. Gaps in pre-admission diabetes optimisation and limited perioperative insulin use require attention. The lack of association between insulin use and glycaemic control may reflect the small number of patients exposed to insulin, limiting statistical power. Strengthening preoperative optimisation and intraoperative monitoring may improve perioperative glycaemic stability.

Who Gets Screened? Patterns and Predictors of Chronic Kidney Disease Screening in Sri Lanka – A Multicenter Study

Karunatilake TD ¹, Bandara KMSP ², Palliyaguru SN ², Wijerathna KMC ², Abeysekera RA ^{1,2,3}

¹ Department of Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka

² Center for Education Research and Training in Kidney Disease, Faculty of Medicine, University of Peradeniya, Sri Lanka

³ Faculty of Medicine, University of Queensland, Australia

Introduction and Objectives: CKD screening remains suboptimal even among high-risk individuals. This study aims to study patterns of CKD screening and associated factors in non-nephrology medical settings in Sri Lanka.

Method : A cross-sectional study was conducted from February-August 2025 in general medical adult outpatient clinics of seven categories of hospitals (Divisional Hospital with no laboratory(DH), Divisional Hospital with laboratory(DHL), Base Hospital, District General Hospital, Teaching Hospital, National Hospital) in the Central province. Patients who had indications for CKD screening were included. CKD screening was considered as having at least one urine protein/albumin evaluation and/or serum creatinine within the last 1-year of follow-up.

Results : Total of 2,727 participants were studied and 65.4% (n=1784) had CKD screening done. DH and DHL category of hospitals had the lowest rates for CKD screening (19.2% and 41.2%). All other hospitals had the majority of patients (>65%) being screened. Compared to DHL, patients attending all other categories of hospitals had significantly higher odds of being screened for CKD. Patients with higher monthly income (>Rs.50,000), higher education level and diabetes had significantly higher odds (p<0.05) of getting screening for CKD. Sex, age category, ethnicity, marital status, occupation, distance from hospital, hypertension and ischemic heart disease had no significant association with CKD screening status.

Conclusion: Study identified significantly lower CKD screening in primary care hospitals. Patients with higher income, better education and diabetes had higher chance of getting CKD screening. These findings highlight the need to strengthen primary care infrastructure, standardized screening protocols and improve public awareness of CKD screening.

Level of Awareness, Treatment Adherence and Factors Associated with Treatment Adherence among Patients Undergoing Hemodialysis in Selected Hospitals in the Colombo District, Sri Lanka.

Dilhara MHYT¹, Rathnayaka RMCD¹, Ruwanthika PGN¹, Jayasinghe JPWMS¹, Jayasekara JMEGMD¹, Weerawardhana SDPL¹

¹*Department of Nursing & Midwifery, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka*

Introduction: Chronic Kidney Disease is a growing global health concern, with many patients progressing to End Stage Renal Disease (ESRD) requiring hemodialysis. The effectiveness of hemodialysis depends on patients' awareness and adherence to treatment recommendations.

Objective: To assess level of awareness, treatment adherence and factors associated with treatment adherence among patients undergoing hemodialysis in selected hospitals in the Colombo district, Sri Lanka.

Method: A descriptive cross-sectional study was conducted among 260 purposively selected ESRD patients undergoing hemodialysis at two selected hemodialysis units in Colombo district. Participant characteristics were collected using a structured questionnaire, while awareness and treatment adherence were assessed using the validated End Stage Renal Disease Adherence Questionnaire (ESRD-AQ). Data were analyzed using non-parametric statistical tests with IBM SPSS Statistics Version 27. Statistical significance was considered at $p < 0.05$.

Results: Majority of participants were males (71.5%), aged 49–58 years (32.7%), married (81.2%), and unemployed (68.5%). Participants' awareness was high in hemodialysis session attendance (76.5%) and medication adherence (78.8%), but lower for fluid restrictions (46.5%) and dietary recommendations (53.2%). Among them, 23.1% demonstrated good adherence, 36.5% moderate adherence, and 40.4% poor adherence for treatments. Treatment adherence was significantly associated with employment status ($p=0.04$), living district ($p=0.015$), distance between residence and hemodialysis center ($p=0.048$), mode of transportation ($p=0.001$), perception regarding importance of fluid restrictions ($p=0.002$), dietary recommendations ($p=0.018$) and understanding of the importance of medications adherence ($p=0.038$) and dietary recommendations ($p=0.041$).

Conclusion: ESRD patients undergoing hemodialysis demonstrated good awareness regarding session attendance and medication adherence, while awareness of fluid restrictions and dietary recommendations was lower. Overall treatment adherence was suboptimal and showed significant associations with socio-demographic characteristics, accessibility-related factors, and treatment-related knowledge in the Colombo district.

Clinical characteristics of Systemic Lupus Erythematosus in patients with and without lupus nephritis: A comparative study from a Sri Lankan cohort

Wadasinghe K.M.¹, Gallage C.¹, Rathnayake D.L.¹, Ratnayake R.M.¹, Lafir R.², Ariyadurai J.N.², Wijewickrama E.¹, Wijayaratne D.¹, Atukorala I.¹, Weeratunga P.N.¹, Vidanapathirana M.²

¹*Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

²*National Hospital of Sri Lanka, Colombo, Sri Lanka*

Introduction and Objectives: Systemic Lupus Erythematosus (SLE) is a heterogeneous autoimmune disease with variable clinical characteristics. While Lupus nephritis (LN) is a phenotype with high morbidity and mortality, evidence from low-middle income settings especially in South Asian population is limited. This study evaluate clinical characteristics among lupus patients with and without LN.

Methods : A retrospective, comparative study was conducted utilizing data from the lupus cohort at University Rheumatology Clinic at National Hospital of Sri Lanka, Colombo. Patients were considered to have LN by biopsy evidence or clinical laboratory criteria (proteinuria >0.5g/day, unexplained eGFR decline.) Categorical and continuous variables were compared using standard parametric/ non-parametric tests; significance was set at $p < 0.05$.

Results: The study included 111 SLE patients, of whom 60.4% (n=67) had LN. While mean age at diagnosis was comparable (24.5 years versus 23.9 years; $p = 0.714$).

The cohort included 5.4% males (n=6), all having LN (100%) where 58.1% of 105 female patients had LN. Sex distribution differed significantly in LN patients ($p = 0.047$). 65.7% among LN patients had renal involvement at diagnosis.

There was no significant association between LN and ANA positivity, anti-dsDNA positivity or metabolic comorbidities including hypertension, diabetes and dyslipidemia ($p = 0.112, 0.259, 0.269, 0.624$, and 0.270 , respectively). No significant association was observed between renal involvement and treatment-related adverse effects, including cataract, glaucoma, GORD, osteopenia/osteoporosis, fractures, and HCQ-related maculopathy (all $p > 0.05$).

Conclusion : Lupus nephritis is present in the majority of this single center Sri Lankan cohort, and appears to have occurred early in the disease course. No significant association with immunological markers or treatment-related complications.

Reference values for cardiorespiratory fitness measured with cardiopulmonary exercise testing in healthy Sri Lankan adults: A preliminary study

Liyanage JVW¹, Gunasinghe D², Perera CJ³ Harini SAT⁴ Abaydeera A⁵, Gunasena D⁶, Malavige N² Ranasinghe DC^{1, 3, 4}

¹Center for Sport and Exercise Medicine, Faculty of Medicine, University of Colombo, Sri Lanka.

²Department of Immunology and Molecular Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka.

³Cardiopulmonary Exercise Testing laboratory, Kings Hospital, Colombo

⁴Department of Allied Health Sciences, Faculty of Medicine, University of Colombo, Sri Lanka.

⁵Department of Anaesthesiology, Faculty of Medicine, University of Colombo, Sri Lanka.

⁶National Hospital of Sri Lanka, Colombo

Introduction: Cardiorespiratory fitness (CRF) is a strong predictor of health outcomes. Peak Oxygen uptake (VO_{2peak}) is the gold standard for assessing CRF. Most reference values are derived from Caucasian populations, limiting their applicability to South Asians. We aimed to establish preliminary age- and sex-stratified reference values for VO_{2peak} and anaerobic threshold (AT) in Sri Lankan adults.

Methodology: A retrospective analysis of cardiopulmonary exercise testing reports from apparently healthy Sri Lankan adults without metabolic risk factors or major chronic disease was conducted at the National Hospital of Sri Lanka and the Kings Hospital, Colombo, from October 2020 to September 2025. Of 219 reports reviewed, non-Sri Lankan individuals and those outside the 20–79 age range were excluded. VO_{2peak} and AT values were analysed using SPSS version 24. Comparisons were made using independent samples t-tests and one-way ANOVA.

Results: 174 adults (69.5% male) were included. Mean VO_{2peak} was 34.86 ± 10.26 ml/kg/min. Males demonstrated higher VO_{2peak} than females (36.45 ± 9.77 vs. 31.57 ± 10.64 ml/kg/min; $t(172) = 2.99$, $p = 0.003$), VO_{2peak} differed significantly across age groups in both males ($F(5,115) = 2.50$, $p = 0.034$) and females ($F(5,47) = 2.82$, $p = 0.026$), with a general trend of decline with advancing age. Mean AT was 23.95 ± 8.83 ml/kg/min, showing a similar age-related decline in both sexes.

Conclusions: Sex-based differences in VO_{2peak} and AT values in healthy Sri Lankan adults were significant; both measures declined with age. These preliminary data represent the first local baseline for CRF assessment in Sri Lanka, highlighting the need for larger population-based normative studies.

Analytical Method Development For Identify Undeclared Prednisolone in Joint Care Supplements.

Rashani S.A.N.^{1*}, Jayasooriya J.A.H.K³, Fernando P.N.J¹, Silva A.P.D.²

¹*Sri Lanka Anti-doping Agency,* ²*Faculty of Medicine, University of Kelaniya,* ³*Faculty of applied Science, University of Jayewardenepura.*

Introduction and Objectives: Joint care supplements are widely used by athletes to support joint health and performance. However, some may be adulterated with prednisolone, a corticosteroid banned by the World Anti-Doping Agency (WADA) for athletes to use in sports. This study aimed to develop a reliable analytical method using Liquid Chromatography Tandem Mass Spectroscopy (LC/MS/MS) to detect prednisolone in complex supplement matrices.

Method: A 100 mg sample was pulverized, extracted with LC/MS-grade acetonitrile, vortexed, ultrasonicated at 30 °C for 30 minutes, and centrifuged at 5000 rpm for 15 minutes. The supernatant was filtered through a 0.22 µm nylon membrane and analyzed via LC-MS/MS. Liquid samples underwent additional QuEChERS extraction. Chromatographic separation was achieved using a biphenyl column at 40 °C, with 0.1% formic acid in acetonitrile and water as the mobile phase. Prednisolone was identified at a retention time of 1.28 minutes.

Results: The method showed high accuracy (± 2.09 – 3.48%), precision ($\pm 0.70\%$), linearity ($R^2 = 0.99$), matrix effect (97.26%), and recovery (99.06%). LOD (Limit of Detection) and LOQ (Limit of Quantification) were 1.19 ppb and 3.95 ppb, respectively. Out of 19 supplements tested, two showed a positive peak at prednisolone's retention time. One had a quantifiable amount (3.99 ppb), while the other was below LOQ.

Conclusion: The developed LC-MS/MS method is efficient for detecting and quantifying prednisolone in joint care supplements, ensuring regulatory compliance and athlete safety.

Pharmacokinetic-pharmacodynamic evaluation of caffeine from espresso-based beverages and its relationship with psychomotor vigilance in university athletes-A pilot study

Dahanayake D¹, Deeyamulla MP¹, Thisera BANK¹, Rashani SAN²

¹*Department of Chemistry, Faculty of Science, University of Kelaniya, Sri Lanka.*

²*Sri Lanka Anti-Doping Agency, Sri Lanka.*

Introduction and Objectives: Caffeine is one of the most widely consumed ergogenic aids and known for cognitive performance enhancement. However, a significant gap exists in real-world caffeine exposure from commercially available espresso-based beverages and its effect on psychomotor performance under experimental conditions. This study investigated the pharmacokinetic-pharmacodynamic relationship between salivary caffeine concentration and psychomotor vigilance in active university-level athletes following consumption of three espresso-based beverages.

Method: A randomized crossover study was conducted among ten active university athletes. Participants consumed espresso, cappuccino and Spanish latte-each containing ~62 mg of caffeine, maintaining equal washout period. Unstimulated saliva samples were collected at 10-minute intervals over two hours, and caffeine concentrations were quantified using a validated LC-MS/MS (Liquid chromatography-tandem mass spectrometry) method in accordance with ICH M10 guidelines. Psychomotor vigilance was assessed concurrently using a validated computerized reaction-time test. The data were analyzed using linear mixed-effects models.

Results: LC-MS/MS successfully characterized salivary caffeine, demonstrating considerable inter-individual pharmacokinetic variability. Psychomotor reaction time changed significantly over the post-consumption period ($p = 0.047$); however, beverage type ($p = 0.056$) and salivary caffeine concentration ($p = 0.465$) were not independent determinants of psychomotor vigilance after adjustment using linear mixed-effects modelling.

Conclusion: These findings demonstrate the feasibility of salivary pharmacokinetic profiling and suggest that acute cognitive responses to caffeine in athletes are influenced by factors beyond salivary caffeine concentration, highlighting the importance of individual physiological responsiveness. This pharmacokinetic-pharmacodynamic approach provides a valuable framework for future personalized caffeine strategies in sport and exercise medicine and warrants confirmation in larger, adequately powered studies.

Characteristics and associated factors of sports injuries among the patients attending the sports medicine clinic at National Hospital Galle

Biseka AGDS¹, Basry MMMH¹, Chandrasiri UHPV¹, Chanuka HPP¹, Chathurangani MM¹, De Silva PV²

¹Faculty of Medicine, University of Ruhuna, ² Department of Community Medicine, University of Ruhuna

Introduction: Engaging in sports provides significant health benefits, but it carries a risk of injury, which can cause long-term disabilities. It is necessary to have a broad knowledge of injuries and prevention to prevent potentially severe injuries. The study aims to determine the characteristics, associated factors, and knowledge levels regarding sports injuries among patients aged over 12 attending the sports medicine clinic at the National Hospital of Galle.

Methods: A descriptive cross-sectional study was conducted among a sample of 180 patients receiving treatment at the clinic. Data were systematically collected using a pre-tested, interviewer-administered questionnaire that evaluated socio-demographic profiles, specific injury characteristics, and patient understanding of injury management.

Results: The findings revealed that sports injuries were predominantly prevalent among males (73.3%) and individuals playing cricket (23.9%). The lower limb was the most frequently injured anatomical site (50.6%), and soft tissue injuries were the most common tissue type involved (59.4%). Pain was a universal symptom, predominantly reported at moderate severity. Significant associated factors for both upper and lower limb injuries included a previous history of sports injuries ($p=0.002$, $p=0.001$), warm-up duration ($p=0.03$, $p=0.022$), and engaging in indoor versus outdoor sports ($p=0.026$, $p=0.003$). Training under a qualified coach ($p=0.008$) showed an association only with lower limb injuries. While 54.4% of patients possessed average knowledge of general injury management, awareness of structured prevention protocols like FIFA 11+ was markedly poor.

Conclusion: Sports injuries primarily impact the lower extremities of athletes. Addressing modifiable factors like adequate warm-up times and professional coaching can significantly reduce injury occurrences.

Salivary Caffeine Pharmacokinetics and Psychomotor Performance Following Consumption of a Standardised Espresso-Based Coffee beverage in University Athletes: A Prospective Pre-Post Interventional Study Using LC-MS/MS

Thisera BANK¹, Deeyamulla MP¹, Dahanayake D¹, Rashani SAN²

¹*Department of Chemistry, Faculty of Science, University of Kelaniya, Sri Lanka*

²*Sri Lanka Anti-Doping Agency, Sri Lanka*

Introduction and Objectives: Caffeine is the world's most widely consumed psychoactive stimulant with well-documented ergogenic effects, yet sex-specific salivary pharmacokinetic-psychomotor relationships remains insufficiently documented in athletes. This study evaluated salivary caffeine pharmacokinetics and visual reaction time in university athletes, with particular emphasis on sex differences.

Method: Ten healthy university athletes (5 males and 5 females; age 22-26 years) underwent 72-hour caffeine washout and overnight fasting before consuming a standardised cappuccino. Saliva was sampled at baseline and 10-minute intervals for 100 minutes and analysed by validated LC-MS/MS method. Reaction time (RT) was assessed using the Psychomotor Vigilance Test (PVT) in Inquisit 7 software. Sex×time effects on RT were tested using mixed-design ANOVA; baseline and trough RT were compared between sexes using t-tests.

Results: Baseline salivary caffeine was negligible (<5ppb) in all participants. Males reached peak salivary caffeine concentration earlier ($T_{\square_{ax}}$ 30-40 min; $C_{\square_{ax}} \approx 277$ ppb) than females ($T_{\square_{ax}}$ 90-100 min; $C_{\square_{ax}} \approx 212$ ppb). Mean RT improved from 290.2 ± 51.0 to 276.6 ± 21.0 ms in females (T_{peak} -50 min) and 266.1 ± 11.5 to 263.6 ± 23.5 ms in males, (T_{peak} -20 min). The Sex×time interaction was not significant ($0.05 < P$), nor were sex or time effects. Baseline and trough RT did not differ significantly between sexes ($0.05 < P$). Notably, optimal psychomotor performance preceded peak salivary caffeine concentration in all participants.

Conclusions: Sex differences emerged in absorption kinetics but psychomotor gains did not differ significantly, likely reflecting limited power in this small cohort ($n=5$ /group) rather than a true null effect. Peak performance preceded before peak salivary caffeine concentration, indicating that submaximal caffeine levels suffice for CNS stimulation. Adequately, powered, randomized, placebo-controlled crossover studies are recommended to confirm sex-stratified dosing.

Insulin-Dextrose Infusion in Acute Management of Severe Hypertriglyceridemia: Case Series

Sumaiya LF¹, Gamage AH¹, Chandrasekaran M¹, Sumanatilleke M¹

¹*Diabetes and Endocrine Unit, NHSL*

Introduction: Severe hypertriglyceridemia, defined by triglyceride levels ≥ 11.3 mmol/L, increases the risk of acute pancreatitis and cardiovascular disease. While standard treatment is ineffective in emergency management, alternative options exist. Insulin, heparin, plasmapheresis, and octreotide are effective in treating severe hypertriglyceridemia.

Case series: We present four cases in which intravenous insulin at a dose of 0.1 U/kg infusion was used as emergency treatments for severe hypertriglyceridemia. In Case 1, a 37-year-old male with no significant medical history was admitted with chest pain and a triglyceride level of 38 mmol/L; after three days of insulin-dextrose, his triglycerides decreased by 80%. In Case 2, a 35-year-old female with a 13-year history of diabetes mellitus with an HbA1c of 9.6% presented with triglycerides at 25 mmol/L; after 3 days of insulin-dextrose, her triglyceride levels fell by 68%. In Case 3, a 39-year-old male with Diabetes and hypertriglyceridemia presented with triglycerides of 17 mmol/L, and his HbA1c was 9.2. After 2 days of insulin-dextrose therapy, he achieved a 64% reduction in triglycerides. In Case 4, a 44-year-old male patient with hypothyroidism and a TSH level of 29 μ IU/mL presented with a triglyceride level of 34 mmol/L. He was treated with insulin-dextrose for 5 days, resulting in a 68% reduction in triglyceride levels. None of the patients had a family history of dyslipidemia, and none of them developed pancreatitis.

Conclusion: These cases show that insulin is a rapid and effective treatment for severe hypertriglyceridemia in patients with or without diabetes, especially when other advanced therapies are unavailable.

Audit on Adherence to Guideline-Recommended Ultrasound and FNAC Follow-up for Thyroid Nodules in a Tertiary Care Centre

Sumaiya L.F¹, Gamage A.H¹, Chandrasekaran M¹, Sumanatilleke M¹

¹*Diabetes and Endocrinology Unit, NHSL*

Introduction: Thyroid nodules are present in a subset of adults and require systematic evaluation to identify the risk of malignancy. This audit aimed to evaluate adherence to ACR TIRADS 2017 pathways in local practice at our hospital and assess adherence to these guidelines in patient management.

Methodology: A retrospective cross-sectional audit of 51 thyroid nodule cases was conducted at the Endocrine Clinic of the National Hospital of Sri Lanka over two months. Patients with thyroid nodules who underwent USS with TIRADS classification and who had FNAC findings were analyzed against the recommended management pathways.

Results: Among the 51 thyroid nodules, the TIRADS distributions were as follows: TR2 (16), TR3 (22), TR4 (12), and TR5 (1). FNAC was indicated for 12 nodules and was performed in all cases. Bethesda classification showed Bethesda I, Bethesda II, and Bethesda VI in 2, 9, and 1 nodules, respectively. The malignant nodule was managed with total thyroidectomy and was diagnosed as papillary thyroid carcinoma. Nodules with other indications were managed surgically, including lobectomy in one patient and total thyroidectomy in three patients. The histological results were mostly benign and follicular adenomas. USS follow-up was indicated for 21 nodules and performed in 14 cases at appropriate intervals. Furthermore, 12 FNAC procedures and 6 USS follow-ups were performed despite not meeting the recommended indications. Overall, 50.9% of the patients adhered to the TIRADS Bethesda-guided management pathway.

Conclusion: This audit demonstrates moderate adherence to TIRADS–Bethesda-guided management; however, over-biopsy and surveillance deviations highlight the need to strengthen adherence to guidelines to optimise patient care and ensure timely intervention.

Evaluation of hepatic vein anatomical variations using computerised tomographic imaging in a Tertiary care hospital

Arudchelvam J^{1,2} Kumari JMMD²

¹*Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka*

²*National hospital of Sri Lanka, Colombo, Sri Lanka*

Introduction and Objectives: Hepatic venous (HV) anatomy variations are important in liver transplantation, hepatic resections and interventional procedures. This study assesses the anatomical variations of the HV i.e. (Right (RHV), left (LHV) and middle (MHV)) using computerised tomography (CT) imaging.

Methods: A descriptive cross sectional study was conducted at the national hospital of Sri Lanka (NHSL). One fifty CT images of HV were included. Patients with Cirrhosis, hepatic tumors, trauma, prior hepatic surgery and inadequate image quality were excluded. The images were analysed by the radiologist and the surgeon on the computerised workstation. HV drainage pattern to the inferior vena cava (IVC), segmental branches and draining segments were analysed.

Results: The most common pattern was a common trunk between the MHV and LHV, seen in 123 (82.0%) cases. Accessory right inferior HV were seen in 44 (29.3%), with single segment draining in 35 (79.6%), two segments in nine (20.4%). Accessory left inferior HV were seen in only one (0.7%). All three HV drained separately into IVC in 18 (12.0%). RHV with two segmental branches joining near the IVC and draining via a common trunk was seen in two (1.3%) cases. Similarly LHV and MHV with two segmental branches draining via a common trunk were observed in five (3.3%) and two (1.3%) respectively.

Conclusion: Hepatic venous anatomical variations are common. Preoperative CT evaluation of hepatic venous anatomy is essential for surgical planning and image-guided interventions to reduce operative complications and improve safety.

Confidence in managing pediatric emergencies among emergency department doctors in Sri Lanka: a multicentered cross-sectional study

Weerakkody WAKM¹, Weeratunga D²

¹ *Accident Service, Lady Ridgeway Hospital for Children, Colombo 08*

² *Emergency Department, National Hospital of Sri Lanka, Colombo 10*

Introduction and Objectives: Children form a substantial proportion of emergency department (ED) presentations, yet managing acutely ill children remains challenging, especially in mixed ED settings with limited pediatric exposure. This study assessed the level of confidence among ED doctors in managing pediatric emergencies, factors affecting level of confidence, and strategies for improvement.

Method: A multicentered cross-sectional study was conducted from June to September 2025 in selected EDs in Southern and Western provinces in Sri Lanka. Doctors with at least six months of ED experience were recruited using stratified sampling. A pre-tested self-administered questionnaire assessed confidence across ten pediatric emergency domains, perceived barriers, and suggested improvements. Data were analysed using descriptive statistics, t-tests, chi-square tests, and ANOVA.

Results: A total of 152 doctors participated. The mean confidence score was 3.85 (SD 0.62), indicating moderate confidence. Highest confidence was reported in managing pediatric seizures (4.15) and common medical conditions (4.07). Lowest confidence was seen in discharge decision-making (3.33), pediatric trauma (3.63), and medication safety (3.70). Seniority and ED experience were significantly associated with higher confidence ($p < 0.001$); Senior Registrars reported the highest confidence (4.26) and Resident House Officers the lowest (3.04). Gender and prior pediatric ward exposure were not significantly associated. Main barriers were limited exposure (56.6%), stress during emergencies (52.0%), and difficulty handling anxious parents (42.1%).

Conclusions: ED doctors demonstrated moderate confidence, with notable gaps in trauma care, medication safety, and discharge planning. Increased supervised pediatric exposure, simulation training, quick-reference tools, and structured debriefing may improve pediatric emergency care in Sri Lanka.

Post-Exposure Management Following Occupational Blood and Body Fluid Exposure; Knowledge, Attitudes and Practices among Nurses Working in Selected Medical and Surgical Wards at the National Hospital of Sri Lanka, Colombo.

Rodrigo BKJS¹, Rathnayake RMSN¹, Rathnayake SM¹, Sivamsan S¹, Lucas MN¹

¹ *Faculty of Medicine, University of Colombo.*

Introduction and objectives: Nursing officers in Sri Lanka frequently experience occupational exposure to blood and body fluids, yet evidence regarding their knowledge, attitudes, and practices related to post-exposure management is limited. This study assessed knowledge, attitudes, and practices regarding post-exposure management among nurses working in selected surgical and medical wards at the National Hospital of Sri Lanka (NHSL), Colombo.

Method: A cross-sectional study was conducted using a self-administered questionnaire among currently employed registered nurses in eight randomly selected medical and surgical wards at NHSL, Colombo. A calculated sample size of 120 nurses was recruited. Cluster sampling was used, with each ward considered a cluster. Four medical and four surgical wards were randomly selected. Associations were assessed using the Chi-square test.

Results: Good knowledge was observed in 56.7% (n=68) of participants, which was significantly associated with nurses working in surgical wards (p=0.027). Good attitudes towards institutional reporting protocols and post-exposure management were observed in 86.7% (n=104). Perceived stigma associated with reporting exposures was observed in 29.1% (n=35). Among the study participants, 64.2% (n=77) reported a previous exposure to blood and body fluids, of whom 98.7% (n=76) reported immediately washing the affected site with soap and water. Among nurses reporting exposure out of routine Sexually Transmitted Diseases clinic hours (n=38), 31.6% (n=12) appropriately followed the recommended local protocol.

Conclusion: While just over half (56.7%) of nurses had good knowledge scores, most had good attitude scores (86.7%) and good practice scores (98.7%) for immediate post-exposure measures. Perceived stigma remained a potential barrier to reporting occupational exposures. Adherence to local post-exposure management protocols beyond clinic hours was suboptimal.

Knowledge without action: Dengue prevention gaps among febrile patients in Colombo

Kodikara K.A.M.P¹, S.N. Guruge¹, Warnasooriya W.M.M.P¹, Karalliyadda H.M.M.J¹, K. Keerthikan¹, P.K. Buddhika Mahesh²

¹*Faculty of Medical Sciences, University of Sri Jayawardenepura, Sri Lanka*

²*Office of RDHS- Colombo*

Introduction and Objectives: Dengue fever remains a major public health problem in Sri Lanka, particularly in urban areas like Colombo. This study assessed knowledge and attitudes regarding dengue and identified factors associated with knowledge among febrile patients attending the outpatient department of a tertiary care hospital in Colombo district.

Method: A descriptive cross-sectional study was conducted among 384 febrile patients aged ≥ 18 years attending the outpatient department of a selected hospital. Participants were selected using random sampling. Data were collected using an interviewer-administered questionnaire. Knowledge and attitudes were assessed using scoring systems and categorized. Associations were tested using the chi-square test at 5% significance level.

Results: Overall, 77.3% demonstrated 'Good' knowledge and 52.9% showed 'Good' attitude towards dengue prevention. Females comprised 53.9% of participants. Although 90.6% of participants were aware that dengue is mosquito-borne, and 95.6% were aware that dengue is fatal, only 45.8% were aware of peak biting times. Regarding preventive practices, the majority eliminated mosquito breeding sites but failed to use nets and repellents. Delayed health-seeking behavior was observed, with only 14.3% seeking healthcare on the day of fever onset. Significant associations with knowledge were found with gender ($p=0.011$), educational level ($p<0.001$), monthly income ($p=0.012$), residential area ($p=0.016$), and attitude ($p<0.001$). No significant association was observed between knowledge and preventive practices ($p=0.660$).

Conclusion: The study identified gaps in vector-related knowledge, preventive practices, and early healthcare-seeking behavior, despite satisfactory overall knowledge levels. This highlights that knowledge alone does not ensure prevention. Behavior-focused health education may improve preventive practices.

Isolation, identification, and antimicrobial susceptibility patterns of *Salmonella* and *Campylobacter* in poultry, pig and dairy cattle in the Gampaha district, Sri Lanka: A pilot study

Dhilrukshi AML^{1,2}, Badanasinghe CN², Muthugala R³, A Abd EI Wahed⁴, Gunarathna GPS²

¹*Animal Quarantine Station, Colombo, Sri Lanka*

²*Department of Medical Microbiology, Faculty of Medicine, University of Kelaniya, Sri Lanka*

³*Medical Research Institute, Borella, Sri Lanka*

⁴*Institute of Animal Hygiene and Veterinary Public Health, University of Leipzig, Germany*

Introduction and objectives: *Campylobacter* and *Salmonella* are major zoonotic foodborne pathogens, transmitted through contaminated poultry, beef, pork, and milk. This study aimed to detect these pathogens in livestock.

Methods: A cross-sectional study was conducted in farms in Gampaha District. Cloacal swabs from poultry and rectal swabs from pigs and cattle were collected. For *Salmonella*, selective enrichment was performed on stool MacConkey, XLD, and SS agar, and suspected colonies were identified by relevant biochemical tests and using polyvalent antisera. *Campylobacter* was isolated by culturing on modified charcoal-cefoperazone-deoxycholate agar at 42 °C under microaerophilic conditions after enrichment in Bolton broth, and was confirmed by phenotypic tests, including hippurate hydrolysis. Antimicrobial susceptibility testing was performed by disk diffusion according to CLSI (*Salmonella*) and CLSI M45/EUCAST (*Campylobacter*).

Results: A total of 90 swabs were collected from poultry, pigs and cattle. In poultry, *Salmonella* was isolated from 2 (6.67%) samples, and *Campylobacter* from 16 (53.33%). In pigs, *Campylobacter* was detected in only 1 (3.33%) sample. In cattle, *Salmonella* was isolated from 2 (6.67%), and *Campylobacter* was not detected. Poultry *Campylobacter* isolates showed 63% (10/16) non-susceptibility to ciprofloxacin and azithromycin, and 56% (9/16) non-susceptibility to gentamicin. The single *Campylobacter* isolate from a pig was non-susceptible to gentamicin and azithromycin. Among the four *Salmonella* isolates, one each was resistant to ciprofloxacin and chloramphenicol.

Conclusions: The detection of *Salmonella* and *Campylobacter* in livestock, with higher *Campylobacter* levels in poultry, together with evidence of non-susceptibility to antimicrobials used to treat, underscores the importance of surveillance and control measures.

The Hidden Cardiac Burden of Dengue: A Case Series

Yatapana N.A.¹, Subasinghe S.A.S.P.¹, Pathirana J.P.D.M.¹

¹General Hospital Sri Jayewardenepura, Kotte, Sri Lanka

Introduction: Dengue is a major arboviral infection in South Asia, with a rising burden of morbidity. Although plasma leakage and bleeding are well-recognized complications, cardiac involvement remains under-recognized. We describe the clinical spectrum and outcomes of dengue-associated cardiac involvement.

Methods: This retrospective case series included three patients with serologically confirmed dengue admitted to General Hospital Sri Jayewardenepura between **April 2026 and May 2026**. Cardiac involvement was defined as the presence of new electrocardiographic changes, persistent clinically significant bradyarrhythmia, elevated cardiac troponin levels, or ischemic chest pain requiring cardiac evaluation during acute illness. All patients were managed according to national dengue guidelines with close hemodynamic and cardiac monitoring.

Results: A 38-year-old male with hypertrophic cardiomyopathy developed new lateral T-wave inversions with rising troponin levels on day 3 of illness, echography findings of myocarditis consistent with myocardial involvement. A 62-year-old female with hypertension, dyslipidemia, mild coronary artery disease, and myocardial bridging presented on day 4 with ischemic chest pain and new anterior T-wave inversions despite negative serial troponins. A previously healthy 45-year-old male developed persistent sinus bradycardia from day 3 of illness without hemodynamic compromise or an identifiable alternative cause. None of them developed heart failure or malignant arrhythmias, and all recovered fully with supportive management.

Conclusion: Dengue associated cardiac involvement may occur in patients with or without pre-existing cardiovascular disease and has a spectrum of clinical presentation. Cardiac assessment should be considered in patients with suggestive features, electrocardiographic changes, raised cardiac biomarkers or significant arrhythmia. Larger prospective studies are required to determine the prevalence, predictors and optimal assessment of cardiac involvement in dengue.

Clinical Audit on Implementation of the VAP Bundle to Reduce Ventilator-Associated Pneumonia

Herath H.M.N.K.¹, R.K.C. Jayarathna R.K.C.¹, Perera M.H.M.T.S.¹

¹*National Institute of Infectious Diseases, Angoda*

Introduction: In intensive care unit (ICU), ventilator associated pneumonia (VAP) is a major cause of mortality among patients, increasing length of ICU stay and increased antibiotics use.

Application of VAP bundle, a set of evidence-based interventions aimed at reducing the risk of VAP, is recommended for patients on mechanical ventilation.

Objectives: To reduce the incidence of VAP by implementing the VAP bundle

To assess the compliance and adherence of care providers with the elements of VAP bundle mentioned in guidelines.

Methods: VAP bundle guideline with a tool of 12 elements of 2022 was taken as the set of standards. Application of VAP bundle to patients admitted from 01st of June 2024 was audited. Results were presented and discussed with the ICU doctors and nurses.

Deficiencies were identified, reasons were identified and corrective methods were adopted.

Re-audit was done from 1st of January 2025.

Results: 31 patients were assessed in the initial audit and 28 were assessed in the re-audit.

Overall compliance in the 1st audit was 71.21% and, in the re-audit, this was 79.67%. There was a marked improvement in daily sedation hold from 9.6% to 79.7% and correct humidification of ventilatory circuit from 32.2% to 89.2%.

Conclusions: The audit, with completed audit cycle, shows that there had been improvement in adherence to the VAP bundle implementation.

An emerging shift in infective endocarditis: A cross-sectional study at Teaching Hospital Peradeniya

Waidyatileke SR¹, Shantha DWA², Gallage RD³, Jayathilaka IKMSS³, Dalugama DPCL¹, Pathirage LPMMK^{1,3}

¹*Department of Medicine, Faculty of Medicine, University of Peradeniya*

²*Teaching Hospital, Peradeniya*

³*Department of Family Medicine, Faculty of Medicine, University of Peradeniya*

Introduction and Objectives: Infective endocarditis (IE) carries significant morbidity and mortality. Intravenous drug use (IVDU)-associated IE is reshaping its clinical landscape globally, yet Sri Lankan data remain scarce. This study characterized temporal trends in IE incidence, demographics, clinical presentation, and microbiology at Teaching Hospital Peradeniya (THP) from years 2021 to 2026.

Methods: A retrospective cross-sectional analytical study of confirmed IE cases at THP was conducted, comparing an early period (2021–2023) with a recent period (2024–2026) using Fisher's exact test, Mann-Whitney U, independent t-tests, and Spearman's rank correlation.

Results: Thirty-five IE cases were analyzed, (14 early, 21 recent) with a significant surge in 2025 (n=14; 40% of the cohort). The recent cohort was significantly younger (mean age 45.9 vs. 59.1 years; p=0.016) with marked male predominance (95.2%; p=0.028). IVDU emerged exclusively in the recent period (33.3%; p=0.027), correlating with right-sided IE (47.6%; p=0.009), predominantly involving the tricuspid valve (0% vs. 38.1%; p=0.012). *S. aureus* IE rose from 21.4% to 38.1%, with methicillin-resistant *S. aureus* (MRSA) appearing exclusively in the recent period (23.8%; p=0.069). Composite complications at presentation rose significantly (7.1% vs. 42.9%; p=0.028), driven by higher embolism rates (7.1% vs. 47.6%; p=0.023). In-hospital mortality was unchanged at 14.3%.

Conclusions: Although limited by single-centre design and modest sample, THP is experiencing an acute epidemiological shift in IE driven by an emerging IVDU cohort, producing a clinical phenotype dominated by right-sided MRSA endocarditis in younger male patients, a startling finding in community acquired infection, underscoring urgent need for targeted public health intervention and antimicrobial stewardship.

Research Study to explore the Challenges faced by Healthcare Staff in Managing Agitated Patients who present to the Emergency Department (ED)

Deshani EM^{1,2}, Rathnayake N³, Mahendrarajah S⁴

¹*Postgraduate Institute of Medicine, Colombo*

²*Teaching Hospital Rathnapura*

³*Faculty of Medicine, University of Colombo*

⁴*District General Hospital, Nuwaraeliya*

Introduction and Objectives: Agitation is a challenging presentation in Emergency Departments (EDs) worldwide, posing significant threats to patients and staff. This research aimed to explore the specific challenges encountered by ED staff when managing agitated patients.

Methods: A descriptive cross-sectional study was conducted at an ED of a District General Hospital in Sri Lanka. Data were collected using an anonymised questionnaire from healthcare staff and security officers working in the ED. Data were analyzed using descriptive statistics and inductive content analysis.

Results: Participants included 20 doctors, 8 nurses, 15 security officers and 14 support staff. Over half of the staff (57.9%) encountered agitated patients weekly, commonly presenting due to drug and alcohol intoxication or psychiatric conditions (79%). Key Challenges to managing these patients were risk of physical harm (70.2%) and high total patient load (63.2%). 59.65% of staff felt unsafe when seeing agitated patients, with support staff most affected. Verbal de-escalation was commonly practised by all (91.2%). Physical restraint was practiced by 46% of respondents, primarily support staff (85.7%), and interestingly, none of the security officers. Crucially, 52.6% of all staff were unaware of existing management guidelines for the topic. Staff recommendations included clearer hospital protocols, regular drills, increased staffing, strengthening security, and communication training.

Conclusions: Frequent and dangerous challenges exist in managing agitated patients in the EDs. Eds must switch from a reactive to a proactive model to foster a safer environment for patients and staff.

PP330

Gaps in Doctor-Patient and Nurse-Patient Interactions and challenges to Effective Healthcare Communication in Emergency care unit at selected tertiary care setting; Sri Lanka

Prashanth G, Sanjeewa SKAD

Effective communication in emergency healthcare settings is crucial for improving patient trust, satisfaction, and clinical outcomes. This study aimed to identify gaps in doctor–patient and nurse–patient interactions and to evaluate challenges to effective communication in the Emergency Treatment Unit (ETU) of a tertiary care hospital in Sri Lanka

A non-randomized interventional study was conducted at the Jaffna Teaching Hospital from September to December 2025. Medical and nursing officers with more than six months of experience in the ETU were included. A total of 144 patient–healthcare worker communication sessions were observed, with 72 sessions assessed before and 72 after the intervention. Data were collected using a structured observation tool, and a communication training and awareness program was implemented for participants. Data analysis was performed using SPSS version 28.0.

Most communication was received by patients’ siblings (n=47;32.6%), and most sessions were conducted by medical officers (n=76; 52.8%). Following the intervention, doctors and nurses significantly improved self-introduction (z=3.9; p<0.001) and asking patients’ names (z=3.5; p=0.005). There was significant improvement in explaining investigation findings (z=4.4; p<0.001) and in providing regular updates on patient progress and care (z=2.7; p=0.007). Patient trust increased significantly (z=3.4; p=0.008), as did involvement in decision making (z=3.6; p=0.003). Medical officers improved more in diagnostic explanations and treatment discussions, while nursing officers improved more in clarifying medical terminology. Overall communication quality improved across multiple measured domains after intervention.

The study highlights the effectiveness of structured communication training in improving healthcare interactions. Regular, targeted in-service training programs are recommended to sustain and further enhance communication skills among emergency healthcare staff.

PP331

Factors influencing the accessibility of patients receiving emergency care services at a tertiary care hospital in Sri Lanka.

Edirisinghe TC¹, Dr L.S. De Silva D¹

¹*Ministry of Health*

Introduction and Objectives: Delays in emergency care can determine survival, yet barriers to timely access in Sri Lanka remain poorly understood. Evidence on where delays arise along the care pathway remains limited in tertiary settings. This study assessed accessibility to emergency care and identified factors associated with poor access among adults presenting to a tertiary Emergency Treatment Unit in Sri Lanka.

Method: A hospital-based cross-sectional study was conducted among 427 adults on arrival at the unit. Accessibility was measured using a composite index (0–10) based on ten predefined indicators from leaving home to receiving initial care. Binary logistic regression was used to identify predictors of poor accessibility. Five key informant interviews explored reasons for delay. Ethical clearance was obtained from ERC, PGIM.

Results: Mean accessibility score was 7.1 (SD 2.0). Good access was observed in 45.9%, while 12.2% had poor access. Travel-related delays were prominent: only 44.5% reached the hospital within 30 minutes, and three-wheeler was the commonest mode of transport despite availability of the 1990 Suwa Seriya ambulance service. Rural residence independently increased the odds of poor accessibility (AOR 4.56, $p < 0.001$), and women were more likely than men to experience poor access (AOR 1.92, $p = 0.004$). Higher income was protective. Interviews highlighted delayed recognition of illness severity at home, overcrowding, limited bed availability, and inadequate investigative capacity as important bottleneck

Conclusions: Accessibility to emergency care was inequitable and influenced by residence, gender, and income. Improving access requires strengthening pre-hospital transport and addressing gender- and rural-specific barriers in emergency care pathways.

PP332

Local effects of envenoming in a cohort of snakebite patients from Anuradhapura, Sri Lanka.

Shuja MIM¹, Waiddyanatha S¹, Chathuranga U¹, Siribaddana S¹, Silva A¹

¹*Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura 50008, Sri Lanka*

Introduction: Snakebite envenoming is a major public health concern in rural Sri Lanka, yet local evidence on tissue-related complications and surgical burden remains limited. Such data are important for early clinical recognition, resource planning, and timely referral. This study aimed to describe the clinical complications and surgical burden associated with local effects of envenoming among snakebite patients

Methods: Confirmed snakebite patients aged >16 years, presented between 1st May 2017 and 30th April 2024 to the Teaching Hospital, Anuradhapura, were included. Data on local effects, interventions and complications were retrieved retrospectively from the Anuradhapura snakebite cohort (ASC) using a structured data extraction sheet. Local effects were classified as mild (limited to swelling, pain and bleeding at the bite site), moderate (blistering, haematoma), or severe (large wounds/necrosed/gangrenous areas and cellulitis). Snake species was authenticated by specimen identification, enzyme immunoassay, or a validated syndromic identification algorithm. Data were analysed using descriptive statistics, including frequencies, percentages, and comparison of proportions

Result: Of 5279 patients, 4,363 (83%) had local effects [hump-nosed vipers, 1629 (37%), unauthenticated 1540 (35%) and Russell's viper, 888 (20%)]. This included 162(3%) with severe and 523 (10%) with moderate local effects. Of the severe patients, 98 (60%), 33 (20%), 15 (9%) and 16 (10%) were hump-nosed viper, Russell's viper, Common cobra and unauthenticated bites, respectively.

The proportion of patients with severe local effects was 3 times higher among those bitten on hand, 72/1027 (7%), compared to lower limb 90/4013 (2.24%).

Prophylactic antibiotics were received by 3230 (74%) with local effects. Surgical interventions were received by 104 (2.4%) with local effects [wound debridement, 92 (88%); plastic surgical interventions, 18 (17%); fasciotomy, 4 (4%), and amputations in 1 (1%)].

Conclusion: Local effects were common after snakebite, while severe tissue injury affected a small but clinically important proportion. Hand bites were associated with a higher proportion of severe local effects than lower-limb bites. Strengthening early risk identification, wound monitoring, rational antibiotic use, and timely surgical referral may help reduce local morbidity

PP333

The effectiveness of the Basic Life Support (BLS) workshop for the general public in the Kamburupitiya region.

Danushka N¹, Biseka AGDS², Madalagama CS³, Jayasinghe R⁴

¹*Department of Surgery, National Hospital of Sri Lanka*

²*Faculty of Medicine, University of Ruhuna*

³*Faculty of Medicine, University of Colombo*

⁴*Speciality registrar (Higher) in Neurosurgery, University Hospitals Plymouth, United Kingdom*

Introduction : Cardiovascular diseases are the leading cause of death globally. However, if early Cardiopulmonary resuscitation (CPR) is initiated at the scene of the incident, the survival rate can be improved. This study assessed the overall effectiveness of the BLS workshop on the general population.

Methodology: A BLS workshop for the general public, including police officers and AG office workers in the Kamburupitiya region, was conducted. The knowledge was assessed before and after the training, by using a pre-formed questionnaire which was made based on Resuscitation Council guidelines. Content and face validity had been done before administration. The association between pre- and post-test results was compared.

Results: The total sample size was 54. The mean age of the sample was 40 ± 10.55 years. The majority were females (34%). Mean score of the pre-test was 2.65, and mean score of the post-test was 6.24. During the post-test, the correct answer frequency for each question is as follows. Around 75.0% knew that chest compression for an infant should be given with a palm. None of them was aware of the signs and symptoms of upper airway obstruction. However, there was a significant improvement in BLS following the workshop ($p < .001$). There was a significant association between mean post-intervention test results and age, gender, and occupation ($p < .001$, $p = .003$, $p < .001$)

Conclusion: There's a significant improvement in knowledge regarding the BLS following the workshop. Interactive, frequent sessions with training would improve the abilities of the public.

PP334

Patterns of Motorcycle Accidents: Circumstances, Injuries, and Outcomes at the National Hospital of Sri Lanka

Ranaweera AD¹, Ranathunga RMAN², Pattiya Arachchi A², Jegaruban V¹, Wanigasekara S², Arachchi SNP³, De Silva LSD¹

¹*Ministry of Health and Mass Media*

²*National Hospital of Sri Lanka*

³*NSBM Green University*

Introduction: Motorcycle accidents constitute a major public health problem, causing morbidity, healthcare utilization, and economic loss. Motorcyclists are particularly vulnerable due to limited physical protection.

Objective: To describe the circumstances, injury patterns, short-term outcomes, and factors associated with injury severity among motorcycle accident victims.

Methods: A descriptive cross-sectional study with an analytical component was conducted among 422 consecutive victims admitted to the Accident Service. Data were collected using interviewer-administered questionnaires and data extraction. The response rate was 99.5%. Short-term outcomes included recovery status at discharge, hospital stay, and need for follow-up care. Descriptive statistics and binary logistic regression were used.

Results: Participants were predominantly male (92.1%) with a mean age of 35 years. Most accidents occurred in daytime (58.1%), on weekdays (66.0%), in urban areas (71.4%), and on main roads (71.7%). Contributing factors included unintentional rider errors (20.2%), risky behaviours (16.9%), overtaking (9.7%), poor lighting (12.9%), and mechanical malfunction (5.7%). Most victims sustained multiple injuries (65.0%), mainly soft tissue injuries and fractures, mainly involving lower limbs. Moderate injuries predominated (60.2%); 66.7% required surgery, 90.5% were partially recovered at discharge, and 73.8% required follow-up care. Night-time accidents (OR=2.17, 95% CI: 0.92–5.09), rural location (OR=2.21, 95% CI: 0.95–5.17), and higher speed (OR=1.86, 95% CI: 0.76–4.57) showed increased odds of severe injury, although none reached statistical significance.

Conclusion: Motorcycle accidents predominantly affect young adult males and impose a substantial healthcare burden. Injury severity is multifactorial, highlighting the need for integrated interventions targeting rider behaviour, road safety, and trauma care.

PP335

Association of diabetes mellitus with clinical and laboratory characteristics in culture- positive melioidosis: A decade-long analysis

Piyasiri DLB¹, Jayasekera PK¹, Corea EM²

¹*National Hospital Galle*

²*Faculty of Medicine, University of Colombo*

Introduction and Objectives: Melioidosis, caused by *Burkholderia pseudomallei*, is a severe multisystem infection acquired through environmental exposure. Diabetes mellitus (DM) is a major risk factor, influencing susceptibility and host immune response. This study evaluates the association between DM and clinical and laboratory characteristics of melioidosis.

Method: A retrospective analysis of anonymized data from 120 patients with culture confirmed melioidosis managed between December 2014 and April 2026 in a tertiary care hospital, Sri Lanka, was conducted. Clinical manifestations and baseline laboratory parameters were analyzed in relation to diabetic status.

Results: Of 120 patients, 89 (74%) had diabetes. Among females, all aged >60 years (11/11) and 67% (8/12) aged 40–60 years were diabetic. Among males, 92% (47) aged 40–60 years had diabetes.

Clinical presentations included abscesses (n=62), pneumonia (n=35), septic arthritis (n=9), pyelonephritis (n=9), and endocarditis (n=2). Mortality was 18% (22/120), of which 81% (18/22) occurred in diabetic patients.

Diabetes was significantly associated with abscess formation (p=0.0212). Among 109 patients tested, elevated antibody titres (>1:160) were significantly associated with DM (p=0.003). High ESR (>80 mm/1st hr) and anaemia (Hb <10 g/dL) were also significantly associated with diabetes.

Statistically significant associations were not observed (p>0.05) with leukocytosis, thrombocytosis, elevated CRP, blood culture positivity, or mortality, although these parameters were more frequently observed among diabetic patients.

Conclusions: Diabetes mellitus was highly prevalent in this cohort of melioidosis patients. It was significantly associated with abscess formation and higher antibody titres, as well as laboratory markers suggestive of more chronic or extensive disease, including anaemia and elevated ESR.

PP336

**Investigation of a measles outbreak in a country with high vaccination coverage
2023-2024**

Fernando MAY¹, Samaraweera B², Chathuranga GP², Abeynayake JI²

¹*Department of Medical Microbiology and Immunology, Faculty of Medicine, University of Colombo*

²*Department of Virology, Medical Research Institute, Colombo*

Introduction and Objectives: Measles virus infection remains a major public threat worldwide. Despite maintenance of high immunization coverage, Sri Lanka reported a resurgence of measles virus infection in 2023 challenging its elimination status. Identification of the roles of primary and breakthrough infections during this outbreak will aid in implementation of appropriate control measures within the country. Thus, this study was aimed at detection of primary and breakthrough measles virus infection during the recent outbreak in Sri Lanka.

Methods: This retrospective study analysed 122 serum samples confirmed with acute measles virus infection from September, 2023 through April, 2024 received at the National measles rubella laboratory, Sri Lanka from throughout the country. Primary measles virus infection and breakthrough infection were differentiated utilizing commercially validated and in house verified measles virus specific IgG antibodies followed by measles virus IgG avidity diagnostics. Socio-demographic data was extracted from request forms which accompanied specimens. Data was analyzed using Microsoft excel software and described with descriptive statistics.

Results: Primary measles virus infection was confirmed in 58.19%(n=71) of patients. 23.77%(n=29) of samples confirmed breakthrough infection while equivocal results were yielded in 18.03%(n=22). Majority (58.62%, n=17) of breakthrough infections belonged to patients between 21 to 30 years of age, followed by 31 to 40 years. Breakthrough infections were not detected in children less than 10 years of age (n=24). Proportions of breakthrough infection among males and females were 27.5%(n=22) and 16.66%(n=7) respectively.

Conclusions: Detection of both primary and breakthrough measles virus infections in a highly vaccinated setting highlights the impact of under-unvaccinated clusters and vaccinated populations with waned off immunity, in driving the outbreak in Sri Lanka.

Comparative Quantification of Cannabinol (CBN) in Purified and Non-Purified *Cannabis sativa* L. (Vijayā) Leaves

Thaksila KLAS¹, Nawarathne TK², Manoraj A², Gunaratna TANR³, Paranagama PA¹

¹*Department of Chemistry, University of Kelaniya, Sri Lanka*

²*Quality Assurance, Research and Development Unit, Bandaranaike Memorial Ayurveda Research Institute, Maharagama, Sri Lanka*

³*Department of Dravyaguna Vignana, Faculty of Indigenous Medicine, Gampaha Wickramarachchi University of Indigenous Medicine, Yakkala, Sri Lanka*

Introduction : *Cannabis sativa* L. (Vijaya), classified as a semi-toxic herb (upaviśa) in Ayurveda medicine, requires mandatory purification (Śodhana) before medicinal uses (Ghṛta-śodhana) is documented in the classical Ayurveda texts, intended to reduce psychotropic effects while preserving therapeutic constituents. No previous scientific studies have comprehensively investigated the characteristics of *C. sativa* before and after purification. Therefore, this study aimed to quantify and compare cannabinol (CBN) content in ghee-purified (SLG) and non-purified (ALR) *C. sativa*.

Method: Leaves were subjected to ghee-based purification at 45°C for 10 minutes; non-purified leaves served as the raw control. TLC fingerprinting utilized n-hexane extracts on silica gel, diethyl ether: petroleum ether (4:1), visualized under UV and Fast Blue B. Powder (0.8 g) was sonicated in 10 mL methanol, diluted 10-fold, and CBN quantified by reverse-phase HPLC-DAD (C18 column, acetonitrile-water 65:35 v/v, 280 nm). All analyses were conducted in triplicate.

Results : ALR contained 16.42 µg/mL CBN. Following Ghee-based purification, CBN increased to 20.61 ± 0.74 µg/mL (SLG), representing ~25.6% enrichment. Two chromatographic peaks were detected: Peak A (~4.0 min, tentative Cannabidiol [CBD]) and Peak B (~4.7 min, tentative Tetrahydrocannabinol /Cannabigerol), present in both samples. TLC confirmed that band 2 (R_f 0.72) co-migrated with the authenticated CBN standard (R_f 0.73), validating CBN identity.

Band intensities were reduced post-purification, indicating lipophilic partitioning into ghee.

Conclusions: Ghee-based purification reproducibly enriches CBN in *C. sativa* leaves via thermal decarboxylation of cannabinolic acid, demonstrating a rational shift from psychotropic Tetrahydrocannabinol towards therapeutically safer CBN, aligning with the insights described in classical Ayurveda texts.

PP338

Three-dimensional morphometric characteristics of hepatocellular carcinoma and their implications for image-guided thermal ablation

Sathsara K¹, Premaratne BE¹, Appuhamy C¹, Tennakoon K¹, Siriwardana RC¹

¹*Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Hepatocellular carcinoma (HCC) exhibits variable three-dimensional morphology, which may influence the efficacy of image-guided thermal ablation. While linear tumour measurements are routinely used for procedural planning, detailed morphometric analysis remains limited. The study was performed to evaluate HCC and its deviation from ideal shapes with relevance to ablative procedures.

Method: This retrospective study included 100 consecutive patients with HCC who underwent microwave ablation at a specialized liver care centre between November 2023 and August 2025. Pre-procedural CT or MRI scans were manually segmented using ITK-SNAP software to generate three-dimensional tumour models. Tumour volume, surface area, roundness, and convexity, were calculated and compared with maximum tumour diameter. Statistical analyses were performed using linear regression, with significance defined as $p < 0.05$.

Results: The median tumour diameter was 3.3 cm (range 1.27–7.82 cm). Most tumours (84%) were irregular in shape. Tumour volume and surface area correlated strongly with increasing diameter ($R^2 = 0.89$ and 0.72). Roundness and convexity showed weak associations with tumour size ($R^2 = 0.082$ and 0.019). Deviations from idealised spherical and ellipsoidal models increased progressively in tumours larger than 2–2.5 cm, indicating greater geometric irregularity.

Conclusions: Small HCCs (<2.5 cm) approximate ideal geometric shapes, whereas larger tumours increasingly deviate from spherical or ellipsoidal configurations. Incorporating three-dimensional morphometric assessment into pre-procedural evaluation may improve understanding of tumour geometry and support individualized planning of image-guided thermal ablation in large tumours.

PP339

Respiratory symptoms, lung function and associated factors of construction workers at selected construction sites in the Colombo district

Hewage DN¹, Hewa RRR¹, Hettiarachchi HKNN¹, Idirisinghe IMNH¹, Amarasiri WADL², Senanayake NP³

¹*Faculty of Medicine, University of Colombo*

²*Department of Physiology, Faculty of Medicine, University of Colombo, Sri Lanka*

³*Department of Medical Microbiology and Immunology, Faculty of Medicine, University of Colombo, Sri Lanka*

Introduction and objective: Construction-workers are frequently exposed to airborne irritants, which may lead to chronic-respiratory-diseases. This study aimed to describe respiratory symptoms, lung function, and associated factors among construction-workers.

Methodology: A descriptive, cross-sectional study was conducted among construction-workers across three construction-sites in Colombo district. Data on respiratory symptoms, associated factors and current-asthma were collected using a pre-tested, expert-validated interviewer-administered questionnaire. Height and weight were measured, and hand-held-spirometry was performed to assess lung function. Predicted-values were calculated using ethnicity-specific reference equations.

Results: A total of 153 male (mean±SD age 39.7±10.2 years) construction-workers were recruited. Of them 91(59.5%) reported at least one respiratory symptom, and wheezing, chronic-phlegm, chronic-cough, and breathlessness were observed in 62(40.5%), 32(20.9%), 23(15%) and 8(5.3%), respectively. Of the 153 workers lung function was normal in 113(73.9%), while 40(26.1%) showed abnormal-lung-functions. Restriction, obstructive and peripheral airway limitation patterns were identified in 31(20.3%), 10(6.5%) and 10(6.5%) workers respectively. Current-asthma was present in 15(9.8%). Abnormal-lung-functions were recorded in 8/15(53%) asthmatic-workers, and 32/138(23.2%) of non-asthmatic workers(p<0.05). Associated-factors such as smoking, face-shield use, ethnicity, and body-mass-index showed no significant association with abnormal-lung-function.

Conclusion: The majority of workers reported respiratory symptoms, and the most common symptom was wheezing followed by chronic-phlegm and chronic-cough. Abnormal-lung-functions were observed in approximately 26% of workers. Asthma was significantly associated with abnormal-lung-functions.

Group Differences in Grit, Growth Mindset, and Academic Self-Efficacy among Undergraduate Nursing Students at a Defence University in Sri Lanka

Weerathunga WRU¹, Dharmadasa PKDTN¹, Gunathilaka AGRR¹, Yogendra L¹, Jayathilaka KDCCD¹, Sudusinghe WS², Gamage CKW¹

¹Department of Nursing & Midwifery, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka

²Department of Languages, Faculty of Management, Social Sciences and Humanities, General Sir John Kotelawala Defence University, Sri Lanka

Introduction and Objectives: Non-cognitive traits such as grit, growth mindset, and academic self-efficacy influence learning, resilience, and academic success among healthcare students. Understanding how these traits vary across student groups may help educators develop strategies to support student development and improve educational outcomes. This study assessed group differences in grit, growth mindset, and academic self-efficacy across selected demographic, academic, and performance-related characteristics among undergraduate nursing students.

Method: A descriptive cross-sectional design was used to study undergraduate nursing students at Kotelawala Defence University, Sri Lanka, employing total population sampling. Grit, growth mindset, and academic self-efficacy were assessed using established measurement scales. Academic achievement was determined using the grade point average from the previous semester (SGPA). Differences between groups were examined using independent t-tests and one-way ANOVA with SPSS version 26.0, considering $p < 0.05$ as statistically significant.

Results: Grit showed no significant differences across most demographic characteristics, varied significantly according to self-reported academic performance ($p < 0.001$) and clinical performance ($p < 0.001$), with higher levels observed among better-performing students. Growth mindset demonstrated minimal variation across demographic and academic characteristics but differed significantly by clinical performance ($p = 0.022$). Academic self-efficacy varied significantly according to academic performance ($p < 0.001$), clinical performance ($p < 0.001$), and socio-economic background ($p = 0.005$).

Conclusions: Demographic characteristics showed limited influence on non-cognitive traits, whereas academic and clinical performance were significantly associated with variations in grit, growth mindset, and academic self-efficacy. These findings highlight the importance of addressing psychological and motivational factors in nursing education.

PP341

Perceptions on the Conduct of Anatomy Tutorials and Their Outcomes Among Medical Undergraduates

Weerasekara WGVG¹, Kosgallana EW¹, Jayarathna MJS¹, Sathsara WGDS¹, Subasinghe SADDY¹, Fernando DMPS¹, Adikari SB¹, Amaratunga HA¹

¹Faculty of Medicine, University of Peradeniya

Introduction and objectives: Perceptions of medical undergraduates regarding tutorials can influence student engagement and learning outcomes. This study explores their views on the conduct and outcomes of anatomy tutorials.

Method: A pre-tested, validated, anonymous questionnaire was shared among 250 medical undergraduates following completion of preclinical studies on their perspective on conduct of anatomy tutorials and their outcomes. Kendel's test was used for analysis.

Results: Response rate was 78% (n=195). Pace of conduct and opportunities for interaction with the facilitator had significant association positively with identifying strengths and weaknesses, perceived long-term retention of knowledge, improving the ability to answer exam questions, perceived development of critical thinking and negatively with stress during preparation and stress in answering during the tutorial (p<0.05).

Opportunities for adequate student contribution and opportunities for clarifications had significant association (p<0.05) with all aforementioned factors except stress during answering in tutorials (p=0.438 and p=0.143 respectively).

Comparatively, the number of tutorials per semester, duration of tutorials, and opportunities for interaction with peers had varying association with the above perceived outcomes.

Conclusion: Considering the different characteristics of anatomy tutorials which affect the perceived outcomes, pace of conduct and opportunity for interaction with the facilitator play a significant role. Hence, addressing such factors will be beneficial for further improvement in the quality of anatomy learning experience.

Knowledge and Attitudes toward Deceased Donor Organ Transplantation Among Junior Doctors in Sri Lanka

Joel Arudchelvam¹, Hansani Hegoda Gedara¹, Rukshan Siriwardana¹, Thushan Gooneratne¹, Rezni Cassim¹

¹University Vascular and Transplant unit, Department of Surgery, Faculty of Medicine, University of Colombo

Background: Junior doctors are often among the first healthcare providers to identify potential deceased donors (DD) and initiate appropriate referral pathways. This study aims to assess the knowledge and attitude of junior doctors towards deceased organ transplantation in Sri Lanka (SL).

Methods: A descriptive cross-sectional study was conducted among 57 pre-intern doctors through the responses to an expert developed 25-item questionnaire.

Results: The mean age was 26.82 years; 66.7% were female. Most were Sinhalese (94.7%) and Buddhist (86.0%). 46.4% were from the University of Colombo, 28.1% from the University of Sri Jayewardenepura while 10.5% were from the University of Kelaniya. 80.7% believed live donor transplantation was the ideal type. While 86.0% understood that brain death is irreversible, only 63.2% recognized that death can be declared while the heart still functions. 71.9% responded that it is mandatory for a DD to be declared brain dead. Only 56.1% correctly identified transplantable organs. Awareness of transplants performed in SL was highest for kidneys (88.7%) and livers (84.9%), but lower for hearts (52.8%) and lungs (34.0%) and pancreas (5.2%). Regarding consent laws, 71.9% knew implied consent does not apply in SL. Regarding DD organ transplantation requiring preservation, 47.2% said it was required while 32.1% did not know. 64.9% expressed a willingness to donate, while 33.3% remained undecided. Only a minority of respondents reported adequate knowledge in medical (10.5%), surgical (8.8%), and immunological (10.5%) areas.

Conclusion: Junior doctors in SL exhibit gaps in knowledge of DD transplantation. Transplant related education is needed for medical students.

Career Outcomes and Professional Pathways of Medical Graduates: A Case Study from South Asia

Ranasinghe P¹, Liyanage CK¹, Muhunthan K¹, Wanninayake L¹, Gunasekara JAI¹, Yasawardene P¹, Perera T¹, Wickramasinghe WAG¹

¹ *Department of Pharmacology, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka*

Introduction: Medical education is a major public investment in Sri Lanka, yet evidence on the long-term career trajectories of medical graduates remains limited. This study explored employment outcomes and postgraduate progression among graduates of the Faculty of Medicine, University of Colombo.

Methodology: A cross-sectional graduate tracer study was conducted among 5 cohorts of medical graduates who completed the MBBS degree between 2005 and 2023 at Faculty of Medicine, University of Colombo. Data was collected using an online questionnaire on socio-demographic characteristics, academic performance, employment profile, migration status and postgraduate training. Associations with postgraduate engagement were assessed using chi-square tests, Cochran–Armitage trend analysis, and multivariable logistic regression.

Results: 954 graduates were included. Female representation and ethnic diversity increased over time. Academic performance improved, with increasing proportions achieving higher MBBS classes and distinctions (χ^2 , $p < 0.001$; Cochran–Armitage test, $p < 0.001$), and a corresponding linear trend towards higher academic achievement (Cochran-Armitage test, $p < 0.001$). Most completed internship training in Sri Lanka and postgraduate training was predominantly locally based. Among older cohorts, majority were board-certified specialists or were actively engaged in specialist training. Higher MBBS performance independently predicted postgraduate engagement (adjusted OR=3.04, 95% CI: 1.59–5.81), while internship training in teaching hospitals was also significantly associated with postgraduate progression (adjusted OR=2.27, 95% CI: 1.30–3.97).

Conclusion: Higher MBBS performance and internship training in teaching hospitals, was independently associated with postgraduate engagement, emphasizing the importance of academic achievement and early clinical training environments. These findings provide evidence for workforce planning, postgraduate training and specialist retention strategies in Sri Lanka.

Beyond Pink; Exploring Awareness of Breast Carcinoma and Self-Breast Examination Among Female Nurses in the Government Sector, A Multicentered Study.

Weranja T.G.K¹ , Praneev G¹ , Siriwardena D.I.A²

¹ *Post Graduate Institute of Medicine, Colombo.*

² *Medical Officer*

Introduction: Breast cancer is the leading cancer among women in Sri Lanka, with approximately 6,000 new cases and 1,500 deaths reported annually. Female nurses play a key role in promoting breast cancer awareness and early detection. However, similar studies among female nurses have not been conducted in Sri Lanka, highlighting an important knowledge gap that this study aims to address.

Methodology: A multicenter cross-sectional study was conducted over a 4-month period among 300 female nurses aged 26–54 years working in government-sector hospitals. Participants were recruited using a convenience sampling technique. A self-administered questionnaire collected information on demographic characteristics, knowledge and practices related to breast cancer and self breast examination (SBE). Data were analyzed using descriptive statistics.

Results: Among participants, 69.2% were married; 50% had <5 years of experience. Family history of breast cancer was reported in 7.5%. Awareness of risk factors included female sex 84.2%, aging 50.8%, obesity 46.7%, alcohol 28.3%, smoking 35%, lack of exercise 35%, family history 93.3%, past history 77.5%, and genetic predisposition 65%. Recognition of breast cancer signs was high: breast lump 92.5%, nipple discharge 85.8%, skin changes 86.7%, and axillary nodes 77.5%. Regarding SBE, 94.2% knew it aids early detection; 38.3% identified age 20 as the starting age, 70% recommended monthly checks, 70.8% had formal training, and 79.2% had ever performed SBE (30% monthly, 50.8% occasionally). Barriers included lack of knowledge 26.7%, confidence 25%, time 58.3%, forgetfulness 60.8%, and fear 15.8%.

Conclusions: Nurses show high awareness of breast cancer and SBE, yet adherence to recommended practices remains suboptimal. Regular training and reinforcement are essential to strengthen skills, confidence, and community education efforts.

Development and validation of the Sri Lanka simulation-based nursing learning questionnaire (Sri-Sim NLQ)

De Zoysa MJOS¹, Hashini GKAI¹, Hemachandra PGDKD¹, Wijesinghe NU¹, Gamage CKW¹, Herath HMP¹, Samanmali MBC²

¹Department of Nursing and Midwifery, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka

²Ministry of Health and Mass Media, Sri Lanka

Introduction & Objectives: Simulation-based learning (SBL) is an established strategy for enhancing clinical competence, critical thinking, and patient safety in nursing education. However, Sri Lanka lacks a standardized, contextually validated instrument to assess nursing undergraduates' knowledge, attitudes, and practices (KAP) related to SBL. This study aimed to develop and psychometrically validate the Sri Lanka Simulation-Based Nursing Learning Questionnaire (Sri-Sim NLQ).

Methodology: A theory-driven instrument was developed using the KAP framework through literature review and systematic item generation. Content validity was established via a modified two-round Delphi technique with a multidisciplinary expert panel (n=7). Items were evaluated for relevance, clarity, and representativeness, and the Content Validity Index (CVI) was computed. The finalized instrument comprised 25 items across knowledge (8), attitude (10), and practice (7) domains. Pretesting (n=30) assessed clarity and feasibility. Internal consistency was evaluated using Cronbach's alpha.

Results: The scale-level CVI (S-CVI/Ave) was 0.80, indicating acceptable content validity. Reliability analysis demonstrated high internal consistency for the attitude ($\alpha=0.916$) and practice ($\alpha=0.822$) domains. The knowledge domain showed lower internal consistency ($\alpha=0.475$), consistent with the multidimensional nature of knowledge constructs and heterogeneity in item difficulty.

Conclusion: The Sri-Sim NLQ demonstrates acceptable content validity and domain-specific reliability for assessing KAP related to SBL among nursing undergraduates in Sri Lanka. Further refinement of the knowledge domain is warranted. The instrument provides a contextually relevant tool to support educational evaluation and curriculum development

Attitude towards interprofessional learning during pre-clinical phase among medical and dental undergraduates in University of Sri Jayewardenepura, Sri Lanka

Dhammearatchi K¹, Prabhashani GSC¹, Yasawardene SG²

¹University Surgical Unit, Colombo South Teaching Hospital, Sri Lanka

²Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

Introduction and Objectives: Interprofessional learning (IPL) involves the shared educational activities between different healthcare professions. Medical and dental education has evolved to be conducted independently in Sri Lanka. This study assessed the attitudes of undergraduates who had the opportunity to engage in IPL.

Method: A cross-sectional analytical study was conducted among three batches of undergraduates of the medical faculty and the newly established dental faculty of University of Sri Jayewardenepura. Data was collected using a self-administered questionnaire from ninety-four undergraduates from each course. All dental students in each intake and a similar number of randomly selected medical students participated in the study. The questionnaire was based on concepts and domains from the Readiness for Interprofessional Learning Scale (RIPLS), while incorporating modifications to ensure relevance to the local context. Level of significance was set at $P < 0.05$.

Results: A total sample of 188 was obtained out of which 71.3% were female with a mean age of 22.7 years. Attitudes were assessed across basic sciences including anatomy, biochemistry and physiology involving lectures, practicals, tutorials and anatomy dissections. 97.9% of medical and 93.6% of dental undergraduates demonstrated favourable attitudes towards IPL. Females showed significantly more favourable attitudes compared to males ($p=0.031$), particularly towards practical sessions in anatomy ($p=0.021$) and physiology ($p=0.002$). The most junior cohort demonstrated significantly more favourable perceptions towards tutorials ($p=0.038$) and anatomy dissections ($p=0.012$).

Conclusions: Medical and dental undergraduates demonstrated favourable attitudes towards interprofessional learning, with significant influences of gender and academic year across various teaching modalities. This highlights the importance of integrating IPL into pre-clinical teaching.

PP347

Are Future Healthcare Professionals Prepared for Artificial Intelligence-Driven Health Services? A Cross-Sectional Study Among Allied Health Sciences Undergraduates in State Universities in Sri Lanka

Perera PSI¹, Chamodya THG¹, Marasinghe MMAI¹, Weerasekara WBMR², Napogoda MT³

¹*Department of Nursing, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka*

²*Department of Census and Statistics, Ministry of Economic Policies and Development, Colombo, Sri Lanka*

³*Department of Biochemistry, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka*

Introduction and objectives: The Sri Lankan health workers are likely to face challenges such as insufficient literacy and training on artificial intelligence (AI), prejudice against accountability, and misconceptions about the role of humans in an AI-dominated world. This underscores the need to evaluate the preparedness of Allied Health Sciences (AHS) undergraduates for AI-driven health care.

Method: Data were collected through a quota sampling of 524 AHS undergraduates across four state universities in Sri Lanka. The pre-validated Medical Artificial Intelligence Readiness scale was used. Cronbach's Alpha ensured the reliability. The association between preparedness and socio-demographic data was analyzed through ANOVA and an independent sample t-test.

Results: A Cronbach's Alpha value of 0.941 indicated strong internal consistency of the scale. The 524 participants scored M=69.04, SD=13.19 out of 110 total, manifesting a moderate preparedness level. Optimized preparedness was achieved in the ability domain (M=26.97, SD=05.41 value out of 40), and low preparedness in the cognitive (M=22.83, SD=05.64 out of 40), vision (M=09.50, SD=02.50) and ethics (M=09.73, SD=02.40 out of 15). Undergraduates with an academic background in computer science (p=0.001), coding (p=0.000), and previous exposure to lectures on AI (p=0.000) reported a higher preparedness level. Males showed a significantly higher preparedness level in cognitive (p=0.038) and ethics (p=0.035) domains.

Conclusion: The moderate preparedness level of the undergraduates reflects their readiness to utilize AI knowledge, face challenges, and handle ethical matters in a future AI-revolutionized healthcare world. The findings further highlight the need to integrate AI into AHS curricula and national policy framework.

PP348

The Choice of Studying Medicine: A Survey on the Influencing Factors and Self-Satisfaction Among Medical Students in Sri Lanka

Ramanayake R.M.T.K¹, Rajapaksha R.G.V.K.K¹, Ranasinghe R.A.U.N¹, Ranasinghe I.P.M.N¹, Ranathunga G.M¹, Ramyasiri B.K.N¹, Silva N.K.A¹

¹Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura 50008, Sri Lanka

Introduction and Objectives: The choice to study medicine can be influenced by multiple factors. This study aimed to describe the factors influencing the decision to study medicine, satisfaction and future work plans among Sri Lankan medical undergraduates.

Method: A descriptive-cross-sectional study was conducted during May-June 2025 by inviting all undergraduates from advanced-level intakes 2018-2023 at government medical faculties in Sri Lanka to complete a structured, self-administered online questionnaire.

Results: A total of 1990 (16.2%) of a total of 12278 responded. Their motives for choosing medicine were to help the sick (1259, 63.2%), interest in medicine (1074, 54%), family influence (1005, 50%), and financial stability (883, 44.3%). Of the participants, 627 (31%) reported having no idea about the required academic rigour of the MBBS programme before enrolling. However, only 223 (11%) would not have chosen medicine even if the true rigour was known before. The majority (52.5%) have never considered pursuing another career path. Of the participants, 56% were satisfied with their MBBS experience so far, and 71% were confident in their readiness for a future career in medicine. Only 31% were confident in the financial stability of doctors in Sri Lanka. However, 1037 (52%) are confident in working in Sri Lanka after graduation.

Conclusions: While most participants are motivated by altruism and report high satisfaction, only one-third are confident in financial stability, and only half are confident in working in Sri Lanka. Policymakers must address the gap in pre- and post-enrolment awareness and expectations to retain the workforce in Sri Lanka.

Determinants of lecture attendance in undergraduate medical education: perceptions of students and lecturers at the Faculty of Medicine, University of Ruhuna

Egodage UK¹, Wijewickrama C¹, Weeranayake HSS¹, Thabrew I¹, Senanayake SMVR¹, Thilakarathne S¹, Wijenayaka PA¹, PRCS Pathayala¹, Gunawardana S¹

¹Department of Physiology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka

Introduction and Objectives: Lecture absenteeism is increasing in medical curricula with non-compulsory attendance. This study assessed perception of medical students and academic staff of the Faculty of Medicine, University of Ruhuna regarding factors determining lecture attendance.

Method: A descriptive cross-sectional study was conducted among medical students and academic staff using anonymous self-administered questionnaires. Data on demographics, lecture absenteeism, and perceptions on lecture attendance were collected from pre-clinical and para-clinical students (n=499) and academic staff (n=40).

Results: Lecture absenteeism was significantly higher among para-clinical than pre-clinical students (22.7% vs 13.7%). Major determinants included dissatisfaction with teaching (66.7%), examination-driven skipping (50.9%), difficulty concentrating consecutive lectures (58.1%), sleepiness (41.7%), preference for online learning (28.3%) and self-study (23.2%), intimidating lecturer behaviour (18.4%), and access to recorded lectures (17.2%). Consequences included missing important concepts (78.8%), regret over non-attendance (76.2%), reduced tutorial participation (70.5%) and poor examination performance (61.3%). Students preferred to attend lectures conducted by lecturers with good presentation skills (98.7%), exam-focused teaching (94.7%), up-to-date knowledge (91.7%), strong academic knowledge (87.7%), and engaging teaching styles (86.8%). No significant association was found between attendance and sociodemographic factors.

Lecturers perceived attendance is negatively affected by lectures scheduled close to examinations (92.1%), tiredness (89.5%), non-compulsoriness (86.8%), clashes with clinical work (81.6%), peer learning classes (78.9%), and extracurricular activities (65.8%). Positive influences included clear teaching (94.7%), examination-relevant content (92.1%), interactive teaching (86.8%), subject expertise (81.6%), and recommendations by seniors (63.2%).

Conclusions: Lecture attendance among medical students is mainly influenced by modifiable teaching and scheduling related factors, rather than sociodemographic characteristics.

Readiness and perceptions regarding interprofessional education among health professions students

Sivapalan S¹, De Abrew A², Edirisinghe EAST³

¹*Department of Pharmacy and Pharmaceutical Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura.*

²*Department of Medical Education, Faculty of Medicine, University of Colombo, Sri Lanka.*

³*Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura.*

Introduction and Objectives: Interprofessional Education (IPE) prepares health professions students for collaborative practice by improving communication, teamwork, patient safety, and patient outcomes. This study assessed readiness and perceptions toward IPE among undergraduate health profession students.

Methods: A descriptive cross-sectional study was conducted among undergraduate healthcare students from selected Sri Lankan universities. Data were collected using an online questionnaire including demographic details, the Readiness for Interprofessional Learning Scale (RIPLS), and the Interdisciplinary Education Perception Scale (IEPS). Descriptive statistics, independent t-tests, one-way ANOVA, and Pearson correlation were used for analysis. Reliability was assessed using Cronbach's alpha.

Results: A total of 420 undergraduate first year and fourth year health profession students representing a range of health professional programme including Medicine (n=109, 25.95%), Pharmacy (n=84), Medical Laboratory Sciences (n=61), Nursing, (n=37), Speech and Hearing Sciences (n=33), Physiotherapy (n=25), Radiography (n=21), Optometry (n=20), Occupational Therapy (n=16), and Dental Surgery (n=14) responded. Most were female (67.9%) and from the fourth year of study (54.0%). RIPLS and IEPS demonstrated good reliability (Cronbach's $\alpha=0.917$ and 0.802). High readiness (77.70 ± 9.95) and positive perceptions toward IPE (71.05 ± 10.03) were reported. Gender, academic year, health professional programmes, or participating universities observed no significant differences in RIPLS scores. IEPS scores significantly differed between first- and fourth-year students ($p=0.015$) and among health professional programmes. RIPLS and IEPS scores demonstrated a strong positive correlation ($r=0.747$, $p < 0.001$).

Conclusions: Undergraduate health professions students report high readiness and positive perceptions toward IPE, supporting its implementation within Sri Lankan universities.

PP351

Perspectives of University Lecturers on Use of Artificial Intelligence (AI) in Medical Education: An Explorative study at Faculty of Medicine, University of Kelaniya.

Warnasooriya AN¹, Deduwela RS²

¹Health Data Science Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka

²Department of Medical Education, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction and Objectives: The university lecturers' perspectives on AI usage in medical education bears the potential to change fundamentals of future medical education curriculum. This study aims to explore their perspectives in the Sri Lankan context.

Method: A self-administered questionnaire was formulated using peer-reviewed literature on educators' trends of AI use in medical education. Thirty academic staff members who were selected through purposive sampling completed the questionnaire.

Results: All participants used AI in teaching and learning support. Furthermore, 63.3% (n=19) used AI in research, and 60.0% (n=18) used in assessment and feedback. Among top perceived benefits of AI use were saving time (93.3%, n=28), improved work efficiency (76.7%, n=23), and teaching material preparation (70.0%, n=21). Most commonly used AI tools were ChatGPT (83.3%, n=25) and Google Gemini (83.3%, n=25). Majority of participants (96.7.0%, n=29) stated that AI may increase plagiarism or academic misconduct among students. However, 96.7% of them (n=29) agreed that AI literacy should be integrated into the medical curriculum. Notably, 60% (n=18) of participants were uncertain about the availability of institutional policies on AI usage, despite its availability. Statistically significant association wasn't observed between AI usage and age/experience/designation.

Conclusions: AI tools have made a positive impact on the lecturers' work in the study setting. However, more training and institutional support is required to promote responsible use of AI and adherence to AI policies.

PP352

Carrier regret among medical students in the Faculty of Medicine, University of Ruhuna.

Biseka AGDS¹, Danushka PGN², Jayasinghe R²

¹*Faculty of Medicine, University of Ruhuna, Sri Lanka*

²*Speciality registrar (Higher) in Neurosurgery, University Hospitals Plymouth, United Kingdom.*

Introduction : Medical education is considered one of the highly demanding curriculum. Though there are motivational factors, students find it difficult to carry out academic work due to many challenges, leading to low career satisfaction. The study aims to identify those factors among medical undergraduates (MUG) in all academic years.

Methods : A descriptive cross-sectional study was conducted among MUG at the Faculty of Medicine, University of Ruhuna. Data were collected using a pre-formed, self-administered and validated questionnaire.

Results: Among 160 participants, 40.6% students were in the first year. Common motivational factors were altruism (79.4%), interest in bioscience (76.9%), social prestige (81.9%), financial security (79.4%), and parental wishes (76.9%).

However, participants claimed about academic overload (91.3%), financial stress (40.6%), and emotional burnout (67.5%). Overall, 27.5% students regret about the carrier, and career regret was highest among final-year students (60%), followed by fourth-year students (44.44%), third-year students (36.36%), and pre-interns (27.78%).

A statistically significant association was found between the academic year and career regret ($p = 0.005$, $r=0.17$). Significant correlations were also identified between the academic year and emotional burnout ($p<0.001$, $r=0.34$) and financial stress ($p=0.02$, $r=0.15$).

Conclusion: More than one-fourth of students had career regret due to academic overload, emotional burnout, and financial stress, and this increases with the academic year. The matter should be addressed with in-depth studies and warrants a curriculum change.

PP353

Development of an AI-Powered, Textbook-Referenced Medical MCQ Platform for Final MBBS Preparation

Aarewatte IC¹, Aarewatte LKHDD¹

¹*Med School Hub*

Background: Final MBBS preparation heavily relies on peer-generated past-paper recalls, which often lack reliable, evidence-based explanations. To address this gap, this project developed a web-based e-learning platform leveraging Generative AI to transform raw MCQ recalls into a comprehensive, highly-referenced study tool.

System Development: Over 5,000 historical Final MBBS MCQs across five core specialities (Medicine, Surgery, Paediatrics, Obstetrics & Gynaecology, Psychiatry) were collated. Using Google AI Pro, questions were cross-referenced with standard medical textbooks (e.g., Kumar & Clark, Bailey & Love). The AI generated detailed, stem-by-stem explanations, explicitly citing textbook chapters. To optimize mobile learning, questions were organized into manageable 10-MCQ micro-modules. Custom PHP integrated a Pomodoro timer for structured study, while a Gemini API-powered chatbot provided real-time clarification of complex concepts.

Results & Analytics: A built-in “question reporting” feature functioned as a Quality Improvement (QI) loop; 45 flagged questions were reviewed and corrected, iteratively refining AI-generated content. Analytics from 124 peer quiz attempts revealed an overall average score of 48.6% (range: 0-95.3%). Randomized Medicine MCQs were most accessed, followed by Psychiatry and Surgery. Psychiatry modules yielded the highest average scores (68.9%), while specific modules like Endometriosis demonstrated lower scores (36.1%), highlighting targetable knowledge gaps.

Conclusion: Integrating Generative AI with established medical literature offers a highly scalable method for creating rigorous educational resources. By combining textbook-grounded AI tutoring with integrated time management, this platform modernizes traditional medical revision and effectively highlights areas requiring intensified study.

Evaluation of Anatomy Essay Questions in MBBS and BDS Curricula: Cognitive Demand and Potential for Objective Structured Assessments

Dissanayake JK¹, Abeyasinghe AMMEK¹, Kiringoda KGKC¹, Gunawardhana HGM¹, Fernando RSR¹, Senanayaka BPD¹, Jayawardena JACK², Dasun GMT², Wickremasinghe WAMS², Gunathunga ND², Ekanayake EMCU², Udugama UWAS²

¹*Department of Anatomy, Faculty of Medicine, University of Peradeniya*

²*Department of Basic Sciences, Faculty of Dental Sciences, University of Peradeniya*

Introduction and Objectives: Traditional essay-type questions remain the dominant assessment tool in undergraduate anatomy education in many institutions. However, their reliability, validity, and efficiency have been questioned in modern competency-based medical education. This study evaluated the cognitive characteristics and quality of anatomy essay questions used in MBBS and BDS programmes and assessed their suitability for objective assessment formats (MCQs, EMQs, and OSPEs).

Methods: Anatomy essay questions from MBBS and BDS examinations (2021-2025) of the University of Peradeniya were analysed using a validated 19-item evaluation rubric. A total of 157 questions were initially rated by an anatomy academic on a five-point Likert scale and subsequently reviewed by a panel of six anatomy academics to reach a consensus rating. Descriptive statistics and internal consistency (Cronbach's alpha) were analysed.

Results: The evaluation rubric demonstrated excellent internal consistency (Cronbach's $\alpha = 0.95$). The overall mean score was 3.67/5. Questions demonstrated low emphasis on pure factual recall (mean=2.94), and moderate cognitive demand through conceptual understanding (4.03), application (4.02), and interpretation of anatomical relationships (3.52). The questions demonstrated strong educational quality, with high alignment to intended learning outcomes (4.81), relevance to future clinical learning (4.39), and fair evaluation of student understanding (4.22). Expert consensus identified 84.1%, 74.5%, and 85.4% of questions as suitable for assessment through MCQs, EMQs, and OSPEs, respectively.

Conclusion: A substantial proportion of anatomy essay content was suitable for objective assessment formats, supporting a hybrid assessment model incorporating MCQs, EMQs, and OSPEs to provide broader and balanced evaluation of anatomical knowledge within competency-based medical education.

PP355

Medication knowledge and adherence among liver transplant recipients and caregivers of pediatric recipients and a pilot comparison with Sri lankan patients

Rathanayaka R M S L¹, Samaranayake N R², Siriwardana R C^{3,4}

¹*Department of Pharmacy and Pharmaceutical Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura*

²*Department of Pharmacy and Pharmaceutical Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura*

³*Department of Surgery, Faculty of Medicine, University of Kelaniya*

⁴*Colombo North Centre for Liver Diseases, Faculty of Medicine, University of Kelaniya*

Introduction and Objectives: Medication knowledge and adherence to immunosuppressive therapy are critical for maintaining long-term graft and patient outcomes following liver transplantation. This study aimed to systematically review medication knowledge and adherence outcomes, and assessment methods in liver transplant populations, and to pilot locally adapted assessment questionnaires in a Sri Lankan clinic setting.

Methods: The reporting of this systematic review was guided by the standards of the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) Statement. Studies indexed in PubMed, Scopus, and Research4Life and published between 2001-2025, assessing medication knowledge and adherence among liver transplant recipients and caregivers of pediatric recipients were included. Data on assessment methods and reported outcomes were narratively synthesized. Eligible studies were used to develop a structured questionnaire related to medication knowledge and adherence which was piloted in a cross-sectional in a similar population attending a tertiary liver transplant follow-up clinic in Sri Lanka. Good, moderate, and poor cut-offs were determined using percentiles.

Results: The systematic search identified 471,480 records, and 17 studies met the inclusion criteria. Medication knowledge was quantitatively assessed in only three studies, whereas medication adherence/adherence-related indicators were evaluated in all. Six studies reported the development of structured assessment tools. Medication knowledge and related domains, including health literacy and self-management familiarity, were quantitatively evaluated in 3 studies using structured assessment tools. Objective medication knowledge scores were reported in one pediatric caregiver study (n=113), which demonstrated an overall mean score of 66%, with higher transplant-related knowledge (76%) than background disease knowledge (56%).

Objective adherence measures, including Medication Level Variability Index (MLVI) and tacrolimus trough variability, were used in 13 studies, while seven used self-reported

adherence tools and one used pharmacy refill-based indicators. Among pediatric and adolescent populations, 3 studies reported objectively measured non-adherence rates ranging from 24% to 76%, while persistent non-adherence of 59.7% was reported in 1 study.

Adult-focused studies (n=5) identified regimen complexity, particularly twice-daily tacrolimus dosing, as a major contributor to poorer adherence. Poorer adherence was also associated with socioeconomic disadvantage(n=1), low health literacy(n=2), psychosocial factors(n=2), and limited structured follow-up support(n=1). Overall, objective monitoring approaches consistently detected higher levels of non-adherence than self-reported methods.

Forty-one participants were included in the Sri Lankan pilot (25 adults;16 pediatric caregivers). Medication knowledge was observed as Good-46.3%; Moderate-39.0%; Poor-14.6%. Medication adherence was observed as Good-41.5%; Moderate-48.8%; Poor-9.8%. Mean medication knowledge scores were comparable between adult recipients and caregivers (8.24 ± 1.36 vs 8.13 ± 1.54 ; $p=0.902$).

Conclusion : The systematic review demonstrated that medication adherence is assessed more consistently than medication knowledge among liver transplant populations, with objective monitoring methods frequently identifying substantial non-adherence. Quantitative knowledge assessments were limited. A locally developed assessment tool was effectively piloted in a selected Sri Lankan setting but requires further validation.

PP356

District-Wise Trends and Leading Causes of Maternal Mortality in Sri Lanka: A Secondary Data Analysis from 2014–2023

Gallage RD¹, Abeykoon WDSE¹, Athapattu T¹, Jayathilaka IKMSS¹, Pathirage LPMMK¹, Abeygunawardena S¹.

¹*Faculty of Medicine, University of Peradeniya*

Background: Maternal mortality remains an important public health indicator reflecting the quality of maternal healthcare services in Sri Lanka. District-level variations in Maternal Mortality Ratio (MMR) may indicate inequities in access to and quality of care.

Objectives: To describe temporal and district-wise trends in maternal mortality in Sri Lanka from 2014–2023 and identify major causes of maternal deaths.

Methods: A descriptive secondary data analysis was conducted using maternal mortality data extracted from annual reports of the Family Health Bureau from 2014–2023. District-wise MMR trends and maternal deaths were analyzed descriptively. Districts with the highest average MMRs across the study period were identified, and trends were categorized as increasing, decreasing, or static. Major causes of maternal mortality were summarized using frequencies.

Results: National MMR fluctuated between 25.0 and 46.6 per 100,000 live births during the study period. Districts with the highest mean MMRs were Mullaitivu(110.8), Nuwara Eliya(57.0), Trincomalee(53.3), Gampaha(52.0), and Kegalle(51.1) per 100,000 live births. Increasing trends in MMR were observed in Mullaitivu, Nuwara Eliya, Trincomalee, and Kegalle, whereas Gampaha demonstrated a gradual decline despite persistently high values. Heart disease(146), Obstetric haemorrhage(120), hypertensive disorders(61), respiratory diseases(119), and sepsis(65) were consistently identified among the five leading causes of maternal deaths across the years reviewed. Notably, respiratory mortality(61) peaked in 2021 during COVID-19 pandemic.

Conclusions: Considerable inter-district disparities in maternal mortality persist in Sri Lanka. Strengthening targeted maternal health interventions and improving early detection and management of indirect medical conditions may help reduce preventable maternal deaths in high-risk districts.

PP357

Heavy metal analysis of lipsticks in the Sri Lankan market using atomic absorption spectroscopy

Wijerathne UHMA¹, Kadigamuwa C², Kathiarachchi G²

¹*Department of Chemistry, Faculty of Science, University of Kelaniya, Sri Lanka*

²*National Medicines Quality Assurance Laboratory, Colombo, Sri Lanka*

Introduction and Objectives: Lipstick has a risk of heavy-metal exposure from dermal absorption and oral ingestion. Lead and Cadmium in lipsticks is concerning for public health. In this study, their concentrations in lipsticks were quantified, registered and unregistered products under the National Medicines Regulatory Authority were compared, regulatory compliance was assessed and contamination patterns across brands were identified.

Method: Thirty lipstick samples were analyzed; registered samples (n=11) were taken from the NMRA repository and unregistered samples were acquired (n=19) from the Colombo market. The samples were digested using a mixture of 72% nitric acid, 50% hydrogen-peroxide, and 1% Triton X-100 and analyzed using Atomic Absorption Spectrometer. Statistical analysis was performed using one-way ANOVA with Tukey HSD tests using SPSS.

Results: Mean Lead concentration was 7.89 ± 2.14 mg/kg (4.18–12.52 mg/kg); 4/30 samples exceeded the 10 mg/kg regulatory limit. Cadmium was 0.316 ± 0.253 mg/kg, with all samples compliant (< 3 mg/kg). ANOVA showed no significant difference by brand or registration status for Lead ($p=0.339$; $p=0.089$), while Cadmium differed significantly by both criteria ($p<0.001$). The weak correlation between Lead and Cadmium ($r=0.392$) confirmed the contamination pathways to be independent of each other.

Conclusions: Lead contamination in lipsticks pose a public health concern due to some samples exceeding regulatory limits and some coming close to exceeding. Cadmium levels remained compliant among all the samples analyzed. NMRA registration does not reliably ensure heavy metal safety. Mandatory pre- and post-market surveillance, batch-specific quality controls, and metal-specific regulatory strategies are urgently needed to protect consumers and align with international standards.

PP358

Quality of Life in Atypical Parkinsonian Disorders: Preliminary Results from a Multicentre Cross-Sectional Study in Sri Lanka (GP2 Collaboration)

Velummylum V¹, Pathirage AI¹, Ruwanpathirana PS¹, Senanayake BSN¹

¹*Institute of Neurology, National Hospital of Sri Lanka*

Introduction: Atypical parkinsonian disorders (APDs), including Progressive Supranuclear Palsy (PSP), Multiple System Atrophy (MSA), Dementia with Lewy Bodies (DLB), and Cortico Basal Syndrome (CBS), are characterized by rapid functional decline and cognitive impairment, leading to poor quality of life (QoL). However, data from South Asian populations remain limited.

Objective: To evaluate functional independence, cognitive function, and their association in Sri Lankan patients with APDs.

Methods: As part of the Global Parkinson's Genetics Program (GP2), this multicentre cross-sectional study (November 2025–February 2026) included 62 patients with clinically diagnosed APDs. Functional independence, an important determinant of QoL, was assessed using the Barthel Index (BI), while cognitive function was assessed using the Montreal Cognitive Assessment (MoCA). Diagnostic subgroups were compared using non-parametric tests. The association between cognition and functional independence was evaluated using Spearman's rank correlation.

Results: The cohort comprised PSP (n=36), MSA (n=15), DLB (n=7), and CBS (n=4). Median BI scores demonstrated substantial functional impairment across subtypes: PSP (60.0; IQR 55.0–86.3), MSA (60.0; IQR 40.0–87.5), CBS (72.5; IQR 53.8–80.0), and DLB (80.0; IQR 65.0–87.5). Median MoCA scores were lowest in DLB (13.0; IQR 11.5–15.0) and PSP (18.0; IQR 10.5–22.5), compared with MSA (17.5) and CBS (23.0). Patients with MoCA scores <18 demonstrated significantly lower BI scores than those with higher cognitive performance ($p = 0.03$). A weak but significant positive correlation was observed between MoCA and BI scores (Spearman's $\rho = 0.280$, $p = 0.032$), indicating that better cognitive function was associated with greater functional independence.

Conclusions: Functional independence and QoL in Sri Lankan patients with APDs are substantially affected by both motor disability and cognitive impairment. The observed association between cognitive function and functional independence highlights the importance of early multidisciplinary interventions, including cognitive assessment and rehabilitation, to optimise patient outcomes.

PP359

Clinical Characterization and Functional Correlates of Multiple System Atrophy in Sri Lanka: Preliminary Results from a Cross-Sectional Collaborative Study

Pathirage AI¹, Velumylyum V¹, Ruwanpathirana PS¹, Senanayake BSN¹

¹Institute of Neurology, National Hospital of Sri Lanka

Introduction: Multiple System Atrophy (MSA) is a rapidly progressive neurodegenerative disorder characterized by autonomic failure, parkinsonism, and cerebellar ataxia. Phenotypic distribution varies globally, but South Asian data remain sparse. To describe the clinical phenotypes of MSA in a Sri Lankan cohort and evaluate the relationship between disease severity and functional independence.

Methods: Part of the Global Parkinson's Genetics Program (GP2), this multicenter cross-sectional study (November 2025–February 2026) evaluated 15 patients using 2022 MDS diagnostic criteria. Severity was quantified via the Unified MSA Rating Scale (UMSARS) Parts I (Historical) and II (Motor). Cognitive status and functional independence were assessed using the Montreal Cognitive Assessment (MoCA) and Barthel Index (BI). Statistical associations were determined using Spearman's correlation (ρ).

Results: The cohort ($n=15$) had a median age of 65.0 years, median onset of 62.0 years, and a female predominance (M:F 1:4). MSA-C was the dominant subtype (66.7%, $n=10$), followed by MSA-P (20%, $n=3$) and probable MSA (13.3%, $n=2$). Cerebellar syndrome was the most prevalent core feature (93.3%). Autonomic symptoms were frequent: urinary urge incontinence (80.0%) and neurogenic orthostatic hypotension (33.3%). Median MoCA was 17.5. Significant inverse correlations were observed between functional independence (BI) and both UMSARS Part I ($r = -0.870$, $p < 0.001$) and Part II ($r = -0.774$, $p < 0.001$). No significant correlation existed between UMSARS and MoCA.

Conclusions: The cerebellar phenotype (MSA-C) predominated in this Sri Lankan cohort, alongside a high autonomic burden. The strong correlation between UMSARS scores and BI underscores the rapid functional decline associated with MSA.

PP360

Bone Mineral Density in Patients Presenting with Low-impact Fractures to a Tertiary Care Center in Northern Sri Lanka: a Pilot Study Highlighting the Need for Earlier Osteoporosis Screening in Women

Gobyshanger T¹, Arulmoli A¹, Aravinthan M²

¹*National Hospital of Sri Lanka*

²*Teaching Hospital Jaffna*

Introduction and Objectives: Osteoporosis is a preventable cause of fragility fractures and a significant public health burden, yet Sri Lanka has no bone mineral density screening pathway for women. This study examined the burden of undetected osteoporosis among women with low-impact fractures in Northern Sri Lanka.

Method: Over three months, women with low-impact fractures at a tertiary orthopaedic unit in Northern Sri Lanka were randomly selected and referred for DEXA scanning. Those aged 50 and above were included; those unable to undergo DEXA were excluded. The cohort comprised 94 female patients, stratified by age, menopausal status, WHO classification, T-score, and Z-score.

Results: Of 94 female patients, 62.8% (n=59) were osteoporotic and 22.3% (n=21) osteopenic at fracture presentation; only 14.9% had normal bone density. This burden was consistent across all age groups: 81.5% aged 50–59, 83.8% aged 60–69, and 89.7% aged 70–79 had osteoporosis or osteopenia. It was similarly high regardless of menopausal status: 88.9% among those with premature menopause, 88.7% with early menopause, 83.3% with menopause after 50, and 40.0% among premenopausal women. Overall, 85.1% had Z-scores below -2.0.

Conclusions: This pilot study identifies a high and consistent burden of undetected osteoporosis in women with low-impact fractures in Northern Sri Lanka, transcending age and menopausal status. These women carried significant bone disease before fracture yet no system existed to detect it. Sri Lanka's Well Woman Clinics offer a platform to integrate BMD screening and an opportunity to find at-risk women before fracture.

PP361

Tuberculosis Mortality Reporting in Sri Lanka: Discrepancies Between National Data Sources and WHO Estimates

Sumal Nandasena¹, Erandi Kolonne², Neranjan Dissanayake³, Mizaya Cader⁴, Saman Gamage⁵

¹*Sabaragamuwa University of Sri Lanka*

²*National STD/AIDS Control Programme*

³*Teaching Hospital, Kalutara, Sri Lanka*

⁴*National Programme for Tuberculosis Control and Chest Diseases, Ministry of Health, Sri Lanka*

⁵*Bloomberg Data for Health Initiative, CDC Foundation, USA*

Background: Accurate tuberculosis (TB) mortality data are essential for monitoring progress toward End TB targets. The National Programme for Tuberculosis Control and Chest Diseases (NPTCCD), Registrar General's Department (RGD), and World Health Organization (WHO) report TB mortality using different methodologies. This study aims to compare and analyse TB mortality data reported by the NPTCCD, RGD, and WHO in Sri Lanka.

Methods: TB mortality data from 2011 to 2022 were extracted from national reports and WHO databases. Temporal trends and discrepancies between data sources were analysed descriptively. RGD mortality data were further analysed by age and sex distribution. NPTCCD death audit outcomes were reviewed to assess attribution of deaths to TB.

Results: The NPTCCD reported an annual mean of 596 TB deaths (range: 511–747) from 2011–2022, while the RGD reported a higher mean of 647 (565–739), and the WHO estimated a mean of 782 (730–910). Reported TB deaths differed between the two national sources and were consistently lower than WHO estimates. According to RGD data, 72% of TB deaths occurred among males. The highest proportion of deaths was observed in the 45–64 (41.8%), followed by the 65–74 (26.4%). Among deaths audited by the NPTCCD, 38.9% (n = 242) were determined not to be attributable to TB.

Conclusions: Significant discrepancies exist between TB mortality figures reported by national sources and WHO estimates. Strengthening medical certification, harmonising case definitions, and establishing interagency mortality reconciliation mechanisms are essential to improve the accuracy of TB mortality surveillance.

