SLMA NEWS+

The eMagazine of the Sri Lanka Medical Association

OCTOBER 2020 | VOLUME 13 | ISSUE 10

SERETIDE
salmeterol/fluticasone propionate

gsk

COUNTS EVERY DOSE

Innovative Dose Counter

Keeps count of the number of doses left

- The dose counter helps in determining the remaining doses inside the inhaler device. [1]
- Trusted for almost 17 years. [2]
- Seretide offers improved outcomes vs doubling the dose of ICS therapy. [3]
- With Seretide, 83% of patients* who achieved control remained controlled after 1 year. [4]

References:
1. Guidance for Industry Integration of Dose-Counting Mechanism to MDI Drug Product, U.S. Department of Health Services Food and Drug Administration Center for Drug Evaluation and Research (CDER) Clinical Medical, March 2013.
2. Launch date, 2002.
3. Lemanske RF, et al. N Engl J Med 2010;362(11):975-985.
4. Bateman ED, et al. Am J Respir Crit Care Med 2004; 170(8):836-844.

SLMA NEWS+

"Wijerama House"
No. 6, Wijerama Mawatha,
Colombo 07.
Telephone: +94 112 693 324
Email: office@slma.lk

ISSN : 1800 - 4016

Cover page photo by
Dr. Manitha Perera

Layout and Design by
Institute of Multimedia Education

IN THIS ISSUE

Editorial
Re-learning Lessons Taught by Corona

More than ten months have elapsed since the beginning of the COVID-19 global pandemic which has shaken the very foundations of every society across the world. Amidst this global pandemonium, Sri Lanka stood as a singular example of a nation successfully combating the spread of COVID-19, limiting it to a cluster epidemic with no local cases reported for weeks till early October 2020. However, within days, the tide changed. The numbers soared, as did anxiety and fear. Yet for all that, there was a distinct woodenness in this response as opposed to what we witnessed earlier this year when COVID-19 first hit the shores of this island nation. It makes one wonder how the very people who acted with such vigour and determination just a few months ago, could now seem so complacent and enervated. This essay is an attempt to reflect and re-learn the lessons we seem to have forgotten.

The initial measures taken several months ago to prevent the spread of COVID-19 in Sri Lanka included strict government regulations to limit movement of people between areas, stringent contact tracing, quarantining and implementation of strict physical distancing measures. Although some may perceive these as excessive, it was a necessary enterprise albeit at a hefty financial cost in the local context. It gave us some lead time to optimise resources and put systems in place to efficiently deal with the potential spread of COVID-19 in a larger scale. We got a window of opportunity to get accustomed to the "New Normal" way of life, a luxury even more affluent countries have not been able to afford. Yet, did we really make optimal use of this privilege we were afforded?

The realisation that we have allowed ourselves to become apathetic and complacent, and cocooned in a false sense of security, is rather disappointing. As a nation, we lost sight of the imminent and inevitable danger posed by this tiny virus. As we hurried to return to "normalcy", we overlooked the fact that we now live in a truly global village in which SARS-Cov-2 has become a resident, here to stay for months or years to come. We forgot our masks, returned to crowded workplaces in fully packed public transport, flocked to public gatherings and even left behind our hand sanitisers. The media paid less and less attention to COVID-19 as more exciting events hogged airtime. We permitted ourselves to un-learn what we had learnt over those gruelling weeks of stern control and curfews, earlier in the year. Many of our populace may have perceived the threat of COVID-19 to be remote and felt that they could not be affected because the spread was so limited during the initial phase.

Perhaps, we learnt it the wrong way, for us to have forgotten it all so soon. Living with COVID-19 in the "New Normal" undoubtably requires a significant behavioural and attitudinal change in all. We were compelled to go against the very nature of humanity as social creatures, and find innovative ways to stay connected. We are expected to over-ride the primal instinct of self-preservation to fulfil our social responsibilities, sacrificing our personal liberties for the betterment of mankind. Changes at such a deep level can only be inculcated through repetitive and consistent re-education and practice. However, it is still not too late for us to re-learn. These are practices that must become second nature to us if we are to survive these unprecedented challenging times.

Another important lesson we learnt early on in this pandemic is the value of sustainability. We realised the importance of sustainable food sources and focused on sustainable industries. However, have we applied those same lessons into practice when combating COVID-19? Being a country with limited resources, we are at risk of overwhelming our health resources with large numbers of SARS-Cov-2 infected patients. Dedicating more and more already scarce resources to manage these patients would further compromise the care of thousands of individuals with non-COVID ailments. Furthermore, the cost of maintaining quarantine facilities are also substantial. If Sri Lanka is to be successful in the long run, the country should aim to utilise the available resources efficiently and sustainably. As the situation in the country rapidly changes, we must continue the proactive approach which has served us well before, evaluating and adjusting the measures implemented to meet changing requirements. The use of hospitals and quarantining facilities should be re-examined with the goal of developing a comprehensive national long-term plan.

Moreover, Sri Lanka's response to COVID-19 was unique and multipronged. It utilised not only preventive and curative health sectors, but also the resources of the armed forces, local and central government authorities, universities and some private organisations. This intersectoral collaboration along with public support allowed us to launch an intense campaign to curtail the spread of COVID-19. Except for occasional minor glitches, everything and everyone seemed to work in unison with a single object in mind, like a well-oiled machine. Political parties appeared to be on the same wavelength as they pledged support, cancelling meetings and rallies. There were public-private partnerships without apparent vested financial interests. A largely compliant and vigilant public who understood the value of social responsibility also played a pivotal role. However, in a few short months, this well harmonised system has fallen into disarray with ensuing confusion. All stakeholders, including the public have lost sight of their own responsibilities and are finding faults in others instead. We have forgotten one of the fundamental lessons taught by this highly contagious microscopic virus; we either fight united and prevail, or perish together. This is a virus. It does not respect international borders, nor does it care about class, race or creed. It infects all. In a few short months, we seem to have discounted the role each of us have; the duty to ourselves and the society at large. If we are to survive this pandemic we must re-learn and progress. It is time to remind ourselves that the seemingly benign actions of each of us matter a great deal, a true exemplification of the butterfly effect of chaos theory!

We need to wake up from our slumber and act, purposefully and decisively. It is the dire need of the hour.

President's Message

Dear Members of the Sri Lanka Medical Association,

Sri Lanka was returning to near normal life over the last couple of months, until the detection of a COVID-19 infected patient at the District General Hospital Gampaha on the 3rd of October. It was an incidental finding through a screening process to monitor for influenza like infections (ILI) which has been in practice for about three months. Till this recent outbreak, the number of patients in the community was low and the situation appeared under control. This is evident by low test positivity rates of community random samples, ILI screening and observations of clinicians.

However, it may be possible that we may have missed certain critical points for samplings and some leakage has occurred. A relaxed attitude towards COVID preventive measured was developing and observed at all levels in spite of cautioning by health authorities. A combination of ignorance, very large number of workers in confined spaces, poor ventilation, lax attitude may have played a role in the current outbreak. Thereafter, usage of pubic transport systems, cross over between zones and other behavior patterns have contributed towards propagation of the infection within the affected district and beyond to other parts of the country.

Currently, the pattern observed is hundreds of positive cases being detected daily, the numbers varying depending on the settings affected, with higher numbers being reported from crowded, confined places such as factories, markets and hostels. At this rate, the capacity of the hospital system to isolate and treat every positive case will be exceeded within few days. Testing capacity is stretched to the maximum, with a backlog of 1000-2000 samples everyday.

Spread within the free trade zone (FTZ) and Fish Market has been faster than in other parts of the country. It must be noted that both these settings are governed by a different set of rules and behaviors. Even though the spread within other parts of the country is slower, previously unexposed categories such as young and elderly are affected now. This will alter the morbidity and mortality patterns.

The current approach of mass quarantine has created concerns and uncertainty among the general public as well as health workers. Inter-sectoral coordination in the process is seriously lacking. This will negatively affect the trust of the general public and the morale of the health system. Criminalization of disease leading to a reduction in self-reporting will hamper the preventive process. Sensationalization and stigmatization by media has worsened the situation. Using fear as a health promotional tool is totally incorrect and unacceptable as it affects negatively by aggravating stigmatization. Specially the process of quarantining should never be highlighted as a punishment but as a preventive healthcare measure.

In such a situation it is very important to plan ahead to use our resources to the maximum benefit. The utmost important thing is to prevent infection among healthcare workers while minimizing the casualties among COVID-19 infected patients. With the exponential increase in numbers, it is vital to maximally utilize the limited resources available. PCR testing should be focused mainly on the suspected patients and surveillance should be strengthened through testing at outpatient departments and in-ward settings. It is important to take appropriate precautions to safeguard healthcare workers.

The COVID-19 pandemic is far from over. A major shift in behaviour and attitude is important as we have to live with COVID-19 for a significant time ahead. Media has to play a responsible role in empowering and engaging the public in controlling the pandemic. There is a dire need in clear policies and support systems for healthcare workers who get exposed. Priority should be on breaking the chain of transmission based on a rational and scientific approach.

Professor Indika Karunathilake
President, Sri Lanka Medical Association

SLMA Monthly Clinical Meeting

Dr. Chiranthi K Liyanage

A Monthly Clinical Meeting in collaboration with the Sri Lanka College of Cardiology was held on the 6th October 2020 from 12.00 noon to 1.15 pm at the SLMA Auditorium. The on-site audience was limited in keeping with the current health guidelines on COVID-19 prevention and it was webcast live from the SLMA.

The speakers included Dr. Ajanthan Sivalingam and Dr. Dinuka Liyanage who are both Senior Registrars in Cardiology at the National Hospital of Sri Lanka, Colombo. Dr. Sivalingam made a comprehensive presentation on atrial myxomas while Dr. Liyanage discussed interesting acute coronary syndrome presentations. Both presentations were followed by a lively discussion with the participation of both the on-site and virtual audience.

For the full presentations, please visit https://www.youtube.com/watch?v=ScPbAOPt7Rs

Key Clinical Pearls

Atrial Myxoma - Dr. Ajanthan Sivalingam

- Myxomas are benign tumors of the heart consisting of gelatinous material and a smooth surface.
- Commonly found on the board of the Fossa Ovale. 75% occur in the left atrium. 90% are solitary and pedunculated.
- Myxomas have a wide range of clinical presentations. 50% of the patients have constitutional symptoms while about 20% present with dizziness and syncope. Approximately 20% are a incidental finding.
- Complications of myxomas include congestive cardiac failure, sudden death, cardiac arrythmias, infections, rupture and embolization.
- The diagnosis is by 2D echocardiography and cardiac MRI. There should be a high degree of suspicion as they have a wide case based clinical symptomatology.

Interesting acute coronary syndrome presentations - Dr. Dinuka Liyanage

- Acute Coronary Syndrome (ACS) could have a wide range of presentations from chest pain to cardiac arrest. Some patients with ACS could be asymptomatic. ACS includes unstable angina, non-ST elevation myocardial infarction and ST elevation myocardial infarction. Commonly found on the board of the Fossa Ovale. 75% occur in the left atrium. 90% are solitary and pedunculated.
- ECGs are pivotal in the diagnosis and treatment of ACS since the management varies accordingly.
- Five case-based scenarios with the ECG findings and the corresponding coronary angiographic findings were presented. These cases included Wellen's Syndrome, De Winter T wave, Inferior STEMI with posterior extension and complete heart block, aVR ST-Elevation MI and Spontaneous Coronary artery dissection.
- The diagnosis of ACS in day to day practice could be challenging since patients may not always describe a typical angina history. But as clinicians, first contact doctors should be vigilant and perform serial ECGs to exclude ACS with cardio-biomarker evaluation.

Breaking the chain of transmission through Rational and Scientific Approach

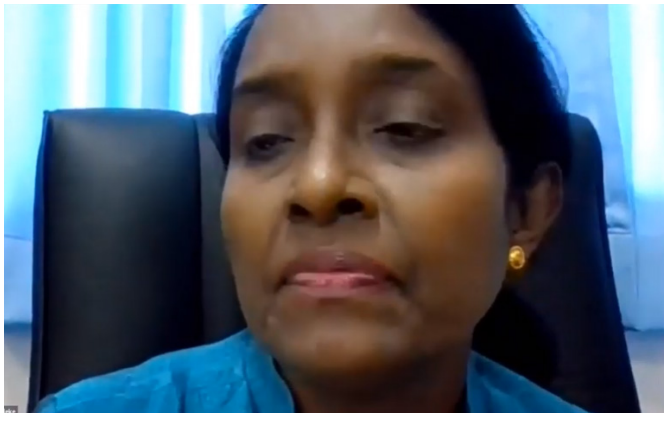
Dr. Nimani de Lanerolle, Assistant Secretary - SLMA

The webinar titled "Breaking the chain of transmission through Rational and scientific approach" was conducted by the SLMA, on the 10th of October 2020. The moderators for the session were President SLMA, Professor Indika Karunathilake and Professor Manuj Weerasinghe, Vice-President SLMA.

Several eminent experts in different aspects of management of the COVID -19 pandemic participated as resource persons The speakers were Dr. Ananda WIjewickrama, President, Ceylon College of Physicians; Dr. Bodhika Samarasekara Consultant Respiratory Physician, District General Hospital Gampaha; Professor Neelika Malavige, Department of Immunology and Molecular Medicine, University of Sri Jayawardenapura; Professor Athula Sumathipala, Chairman, National Institute of Fundamental Studies and Dr. Kushlani Jayathilake, Consultant Microbiologist, Sri Jayawardenapura General Hospital.

The purpose of this webinar was to identify how we must move forward at this time when numbers are rising since the incidental detection of a positive case from the Gampaha District General Hospital earlier in October. The webinar was well attended by the medical community.

For the full presentation, please visit https://www.youtube.com/watch?v=yceJHQTsAjU&t=1920s.



Overdiagnosis – Too much medicine, 2020

Dr. Nimani de Lanerolle, Assistant Secretary - SLMA

A seminar on "Overdiagnosis - too much medicine" was held on the 13th October 2020 from 12.00 noon to 1.30 pm on an online platform.

The session was moderated by the President SLMA Professor Indika Karunathilake. A panel of eminent speakers discussed various aspects related to overdiagnosis during the seminar

Whilst introducing the topic, Professor Kumara Mendis spoke on "What package for an annual check-up?" Dr. Shamila T de Silva spoke under the title of "Pill for every ill, where are we going wrong?"

These speakers were followed by a lecture on "Making of a patient- a modern epidemic" by Professor Saman Gunathilake; "Older adults do they deserve more?" by Dr. FHD Shehan Silva and "Treatment of Joint pain - Gone too far!" by Dr. Himantha Athukorale.

This seminar provided an overview of how overdiagnosis could affect the different segments of the healthcare systems and encouraged a dialogue on how to overcome these issues.

Virtual Regional Clinical Meeting

Dr. Sajith Edirisinghe, Assistant Secretary - SLMA

The third regional clinical meeting of the SLMA organized in collaboration with the Kandy Society of Medicine, was held on 18th October 2020 via a virtual platform. The proceedings commenced with the welcome address delivered by Dr. Dushantha Madagedara, President, Kandy Society of Medicine, and the discussion was moderated by Professor Indika Karunathilake, President, SLMA. The programme comprised of four sessions; namely "Suicide and self-harm in Sri Lanka: Can it be prevented" by Professor Thilini Rajapaksha - Professor in Psychiatry, Department of Psychiatry, Faculty of Medicine, University of Peradeniya, "A challenge of joyful living: Noval psychoactive agent" by Dr. Chathuri Suraweera - Senior lecturer, , Department of Psychiatry, Faculty of Medicine, University of Colombo, "Primary prevention of misbehavior by Professor Rathnayaka M Mudiyanse - Professor in Pediatrics, Department of Psychiatry, Faculty of Medicine, University of Peradeniya and "Real-life scenario on depression by Dr. Pabasari Ginige" - Senior lecturer, Department of Psychiatry, Faculty of Medicine, University of Peradeniya.

The lectures were very informative and interesting talks. The meeting concluded with the vote of thanks delivered by Dr. Sumedha Samankantha, Secretary, Kandy Society of Medicine. It was well attended with more than 150 participants via an online platform.

For the full presentation, please visit https://www.youtube.com/watch?v=8ljrDBacCfo&t=3884s.

COVID Preparedness Assessment of Hospitals of Gampaha District

Dr. Nimani de Lanerolle, Assistant Secretary - SLMA

An assessment of COVID preparedness of hospitals in the Gampaha District was carried out by the Ministry of Health in collaboration with the Sri Lanka Medical Association on the 11th of October 2020 in collaboration. This was conducted by Professor Manuj Weerasinghe, Professor Indika Karunathilake, Dr Dilantha Dharmagunawardhana and Dr Nirmala Loaganathan. The hospitals that were assessed included Biyagama Divisional Hospital, Dompe Divisional Hospitals, Radawana Divisional Hospital, Udupila Divisional Hospital, Divulapitiya Divisional Hospital, Akaragama Divisional Hospital, Ja Ela Divisional Hospital and Pamunugama Divisional Hospital.

The strengths of these institutions as well as the challenges that must be overcome in terms of management of COVID -19 were identified. The willingness and positive attitudes of all staff, good ventilation and open spaces in all hospitals and the pre-emptive approach taken by these institutions with preparations already being underway were praiseworthy positive aspects observed. Some of the notable problems identified were the lack of equipment and resources; infrastructure not conducive to the management of patients requiring isolation; issues related to testing; transport difficulties of staff and the issues related to management of clinical waste.

Based on these observations, recommendations were made to each of the hospitals and methods of implementation were also recognized. A report was submitted to the Secretary, Ministry of Health for further action.

Health Issues and Available Services for Older Adults in Sri Lanka

Dr. Padma S Gunaratne
President, Sri Lankan Association of Geriatric Medicine (2018 - 2019) & President Elect - SLMA

Having medically qualified decades ago, my understanding of undergraduate training in Medical Education centers around five main areas, namely Medicine, Surgery, Gynecology & Obstetrics, Paediatrics and Psychiatry. They have been the corner stones of Medical Education hitherto, as even today's trainees receive a comprehensive training in these specialties during their final year of undergraduate education. Thereby, doctors are trained to pay attention and to provide services accordingly to patients under their care. Along with the many advances in medical sciences and with an ever-increasing older population, the need for a discipline of Elderly Medicine, dealing with specific health needs of the elderly is acknowledged and practiced globally. In this context, the value of Geriatric Medicine as a specialty by itself is incontestable and today's medical curricula should include substantial education in Elderly Medicine. This would immensely help older adults with multiple comorbidities and have difficulties in obtaining services of a wide range of specialists trained in various subspecialties.

Demography

The Elderly population is rapidly rising all over the world. The situation in Sir Lanka is not different and in fact, the increase is at a much higher pace than of the other neighboring nations. The proportion of elders which was only 6.6% in 1981 increased to 12.4% by 2012; a twofold rise over three decades. The projection is that this proportion would increase to 25%, meaning that one in every four people would be more than 60 years of age by 2041. As such, if the medical profession is sensitive to the changing demography, the lead time we have been provided could be used to lay the groundwork to implement short, medium and long-term strategies to cater to the everchanging needs of elderly in the community. One should consider health services from the perspective of an older person's changing functional status throughout life rather than the disease or comorbidity they are experiencing when developing such a framework for action.

"The projection is that this proportion would increase to 25%, meaning that one in every four people would be more than 60 years of age by 2041."

Healthy Ageing

As with many low and middle-income countries, the cut off for geriatric age is 60 years in Sri Lanka while it is considered to be 65 years for developed countries. The World Health Organisation (WHO) defines healthy ageing as "the process of developing and maintaining the functional ability that enables well-being in older age". The attributes of functional ability are determined by the interaction between the intrinsic capacity of the individual and the environment he is living in. Paying attention to both the intrinsic capacity and the environment is essential in planning interventions for healthy ageing.

"The attributes of functional ability are determined by the interaction between the intrinsic capacity of the individual and the environment he is living in. Paying attention to both the intrinsic capacity and the environment is essential in planning interventions for healthy ageing."

Elders commonly have complex multiple comorbidities that are unique to them. As per the Global Burden of Disease Project, the greatest disability of elders is estimated to come from sensory impairment (hearing and vision), back and neck pain, chronic obstructive pulmonary disease, depressive disorders, falls, diabetes, dementia, and osteoarthritis. The greater burden of sensory impairment in low and middle-income countries is probably caused by greater sound pollution and excessive exposure to sun in these countries. The higher incidence of dementia in developed countries is attributed to the higher older average age as well as greater awareness and hence early diagnosis.

"However, early markers of decline in intrinsic capacity such as decreased gait speed or muscle strength are often not identified. The early identification of these markers is crucial if such deterioration is to be reversed or delayed."

Integrated Care for Older People

Older people are mostly seen initially by their usual General Practitioner or by a regular medical professional in primary health care settings for their day to day health issues. Healthcare professionals in clinical settings can detect decline in physical and mental capacities and deliver effective interventions to prevent or delay the progression. However, early markers of decline in intrinsic capacity such as decreased gait speed or muscle strength are often not identified. The early identification of these markers is crucial if such deterioration is to be reversed or delayed. The majority of healthcare professionals lack the required training to recognize and manage impairments in older age. The WHO guidelines on "Integrated Care for Older People" (ICOPE) provides good guidance to medical professionals at primary health care level to prevent declines in capacity. In today's context, there is a pressing need for training in ICOPE and the implementation of its recommendations in routine clinical practice in the primary care settings in Sri Lanka.

ICOPE provides direction leading the practitioner through the process of assessing, classifying, and managing declining physical and mental capacities in older age in an integrated way. While Module I of ICOPE provides guidance for declines in intrinsic capacity including mobility loss, malnutrition, visual impairment and hearing loss, cognitive impairment, and depressive symptoms, Module II describes geriatric syndromes associated with care dependency including, urinary incontinence and risk of falls. The final module addresses interventions to prevent caregivers' strain.

The personalized care plan developed for an elderly person may include interventions that could be implemented by the clinician himself or may need the assistance of members of a multidisciplinary team (MDT) that includes nurse, physiotherapist, occupational therapist, speech therapist, counselor and a social service officer. Progress should be reviewed, and the original plan reassessed at appropriate intervals with the interventions reconsidered accordingly. Good coordination between the patient, family and the team members will ensure the best outcome for the older individual.

"Sufficient training in Geriatric Medicine has to be compulsory for all Physicians, General Practitioners and to primary care medical professionals to fulfill the needs of elderly people in Sri Lanka."

Geriatric Services in Sri Lanka

Upon inquiry from Medical Education Units of individual medical faculties in Sri Lanka, it was revealed that, apart from a few lectures in some of the faculties, many medical curricula of universities lack formal education in Geriatric Medicine for their undergraduates.

The Post Graduate Institute of Medicine commenced a diploma in Elderly Medicine in 2014 and has been training 15 trainees per year since then. MD in Geriatric Medicine which was commenced in 2018 has 11 trainees in the training programme and will produce the first board certified Geriatrician by 2024. The postgraduate training programme for MD qualified specialists in Old Age Psychiatry which commenced in 2017, complement the team of medical professionals dedicated for the care of elderly with 4 trainees as of today. Accordingly, the future of the elderly community in Sri Lanka appears bright, yet it is apparent that adequate numbers of specialists trained in Geriatric Medicine are unlikely to be available for many more years. Sufficient training in Geriatric Medicine has to be compulsory for all Physicians, General Practitioners and to primary care medical professionals to fulfill the needs of elderly people in Sri Lanka.

The needs of older people are unique and complex. The outpatient clinics for elderly should provide services of the Geriatrician and a MDT in a single, convenient location. It would be unreasonable to treat them in general medical wards where the staff is lacking special training in Geriatric services and the infrastructure is not conducive for a disabled old person. The availability of tailor-made Geriatric Wards providing integrated services in all leading hospitals is essential. Additionally, as many elderly patients with frailty are discharged from wards prematurely, the need to establish wards for intermediate care of elderly should also be considered. In this regard, many outpatient clinics established by interested General Physicians, the ward for elderly established at District Hospital, Kadugannawa and the pilot project being carried out at Government Hospital, Athurugiriya are praiseworthy.

"Despite the fact that there is vast scope for improvement of services provided by NSE, some available services in Sri Lanka which are worth mentioning are seventy and hundred years over age payment, promotion of senior citizen committees, provision of legal aid, providing hearing aids, lenses and other orthotic appliances, promoting self-employment and monitoring and supporting elders homes."

Social Services for Elders

It has to be emphasized that the health of an individual is the amalgamation of physical, mental and social wellbeing which go hand in hand. The National Council for Elders & National Secretariat for Elders (NSE) has been established under Protection of the Rights of Elders Act No. 09 of 2000 with the vision of taking the care of older people in Sri Lanka towards an active, productive and dynamic ageing.

Despite the fact that there is vast scope for improvement of services provided by NSE, some available services in Sri Lanka which are worth mentioning are seventy and hundred years over age payment, promotion of senior citizen committees, provision of legal aid, providing hearing aids, lenses and other orthotic appliances, promoting self-employment and monitoring and supporting elders homes. The value of these services to promote independent livelihood of the needy is considerable. The most recent gazette notification bringing NSE and Department of Social Services, hitherto under the purview of the Ministry of Social Empowerment, under the Ministry of Health further facilitates coordination of providing relief activities for disadvantaged elders. It is of paramount importance that medical professionals inculcate the habit of looking into the social aspect of lives of elderly and make referrals to relevant officials for them to enjoy these available benefits.

Contribution from Non-governmental Organizations

The contributions from many non-governmental organizations such as the Sri Lankan Association of Geriatric Medicine (SLAGM) and HelpAge for the betterment of older people in Sri Lanka is substantial. The SLAGM has been conducting a wide range of academic programmes for furtherance of the knowledge and skills of healthcare professionals in Geriatric Medicine since its inception in 2014. The biannual bulletin, "Health Care for Older People - Holistic Approach" published by the SLAGM is a good source of knowledge for all members of the MDT on issues related to the elderly population. The flagship module, "*Wadihity Deviyata Athwelak*" and efforts of the council to introduce Geriatrics to medical and nursing curricula are praiseworthy.

Contribution from the Sri Lanka Medical Association

The Sri Lanka Medical Association has been a strong supporter of Geriatric Medicine throughout and has been conducting relevant lectures, seminars and symposia regularly. I look forward for intensifying promoting Elderly Medicine during my tenure as the President, SLMA in 2021.

References

a) WHO World Report on Ageing and Health, 2015

b) WHO Guidelines on Integrated Care for older people (ICOPE), 2017

c) Protection of the Rights of Elders ACT, No. 9 of 2000

A Message from the Editor-in-Chief

SLMA NEWS+ is the official e-magazine of the Sri Lanka Medical Association. We invite all SLMA members to contribute to SLMA NEWS+ with articles, letters, poems, cartoons, quizzes, medically relevant photographs, drawings or any material you wish to share with the other members. We also welcome your views on the content published in SLMA NEWS+.

Please send them by e-mail to office@slma.lk or by post to Editor-in-chief SLMA NEWS+, Sri Lanka Medical Association, No. 6, Wijerama Mawatha, Colombo 7.

Dr. Chiranthi K. Liyanage

Application of Artificial Intelligence (AI) in Breathing Assessment: The Science Behind the 'Self Shield' App

Dr Pandula Siribaddana
MBBS (Colombo), PhD (Oslo), PGDip. (Med. Ed), CTHE, SEDA(UK)
Senior Lecturer, Postgraduate Institute of Medicine, University of Colombo / Innovations Lead, Commonwealth Centre for Digital Health

When Sri Lanka went into a lockdown in March 2020, interest on digital health tools that are capable of providing care at a distance gained momentum. Innovations in many forms came into limelight during this period including high-tech mobile applications - or 'Apps' - capable of providing multiple services. These services ranged from symptom gathering to digital consultations and contact tracing. One of the platforms that emerged during this period had a more ambitious approach in tackling COVID-19 and beyond. The platform - 'Self Shield' - was developed in Sri Lanka by a voluntary group of medical doctors and software engineers and made use of artificial intelligence (AI) in analysing breathing sounds and voice captured through a mobile phone. Combined with other reported parameters, the App was designed to guide its users on taking the next step in accordance with the national health guidelines. This article will discuss the science behind AI based breathing assessment: a core feature within the Self Shield platform, a transformation of bedside clinical tests into digital form through gamification and the path towards developing an autonomous digital health diagnostic platform in Sri Lanka.

The Science Behind Using AI for Respiratory Diagnostics

The use of AI in diagnosing respiratory conditions is nothing new. According to a review published in Digital Medicine, a Nature Partner Journal, the US Food and Drug Administration (FDA) Authority has been granting clearance to use AI algorithms, particularly for image-based diagnostics[1]. Many of the algorithms developed use imagery such as CT, MRI and even X-ray for autonomous detection of lung cancer, COPD, fibrosis, injuries, etc. The use of breathing sounds and voice in the process of diagnosing lung and airway conditions are less well developed and may be considered to be an emerging field when compared to image-based applications of AI. However, the interest around breathing and voice based autonomous diagnostics, have gained exponentially with the COVID-19 pandemic.

In scientific experimentations, researchers have used high-end recording devices to capture the sound over the chest for autonomous breathing and voice analysis for diagnostics. This may include the use of digital stethoscopes or expensive research-grade microphones under laboratory conditions. However, with current COVID-19 pandemic, the importance of being able to diagnose a person at a distance using available technology was highlighted. In this backdrop, projects such as 'COVID-19 Sounds App' by Cambridge University was launched requesting persons to donate their cough and breathing sounds via an App. Using these sounds, researchers at Cambridge were able to prove that smart phone-based recordings of breathing and voice sounds may be usable in determining the risk of COVID-19 related complications at an early stage[2].

While the capabilities of an AI venture may be incomprehensible to the medicvval mind, for an AI technology to be effective, it needs training similar in nature to the human brain. Features related to time, frequency and time-frequency domains extracted from sound recordings are used to train AI models, which could be compared to a medical student listening to lung sounds through the stethoscope over and over again until he or she becomes quite good at it. AI models however do this within a very short period of time using very large data sets. For instance, the Cambridge COVID-19 Sounds App received millions of sound recordings and used the same in training the AI model as depicted in Figure 1.

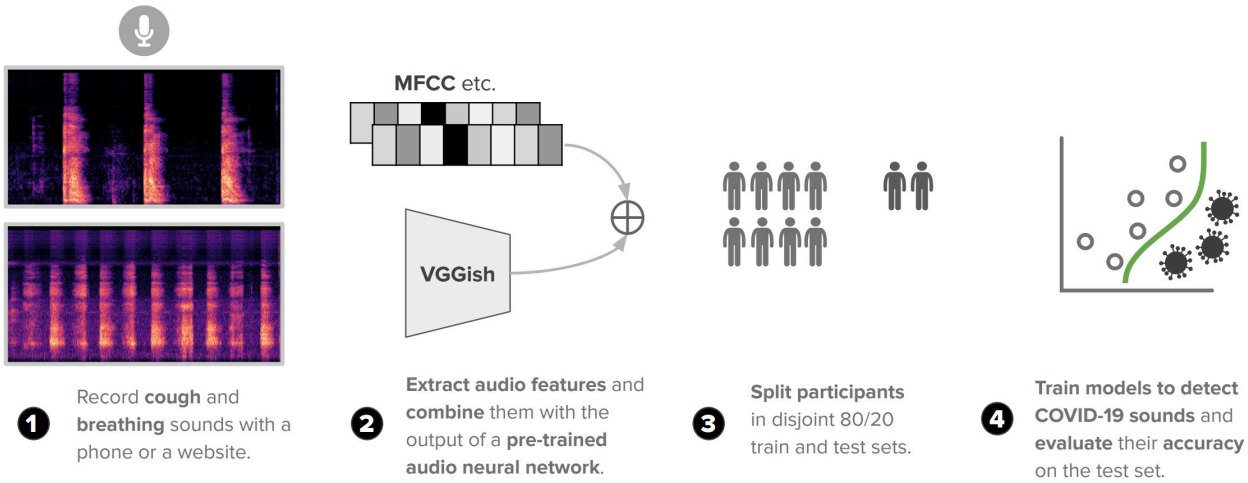


Figure 1 : The process adopted by Cambridge Researchers in training and predicting COVID-19 (Source - https://www.covid-19-sounds.org/en/)

One way of analysing sound recordings digitally is to convert the sounds into spectral diagrams. These patterns may not only indicate normal breathing or speech as demonstrated in Figure 2, it may also show deviations from the 'normal'. Such deviations may be unique to different respiratory conditions or pathologies; the basis for AI based diagnostics. While such deviations may not be distinguishable to the human eye, a binary conversion of these patterns would provide the AI model with the necessary details in adequate amounts.

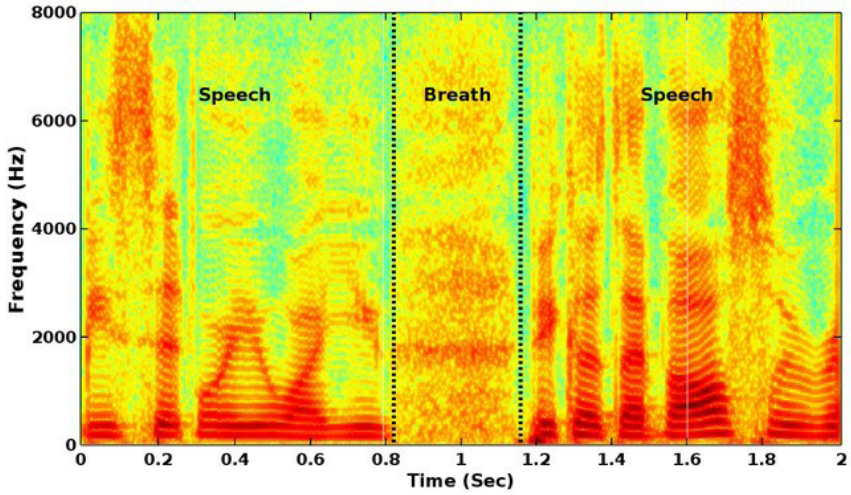


Figure 2 : Spectrogram of a speech signal with breath sound (marked as Breath), whose bounds are denoted by vertical dotted lines (Source - Dumpala & Alluri, 2017[3])

Home Grown AI Models for Breathing Assessment

The attempt by the Sri Lankan team to develop an AI model for breathing assessment began with the understanding that in low resource contexts, the collection, analysis and prediction using breathing sounds and voice would be more challenging than in a developed setting. The quality of the recordings through various low-end smart phone devices, the background noises, human error in recording sounds, as well as network related factors may impact the collection and analysis of the sound recordings. Therefore, the focus was on improving the quality of the recording as much as possible and minimizing the interference of background noises. The team also had to choose an AI training method that fits the nature of the data being collected, which is also cost effective.

Thus, the App itself was designed to guide the users on recording breathing sounds accurately through gamification processes (application of methods from game design to enrich non-gaming processes) as illustrated in Figure 3.

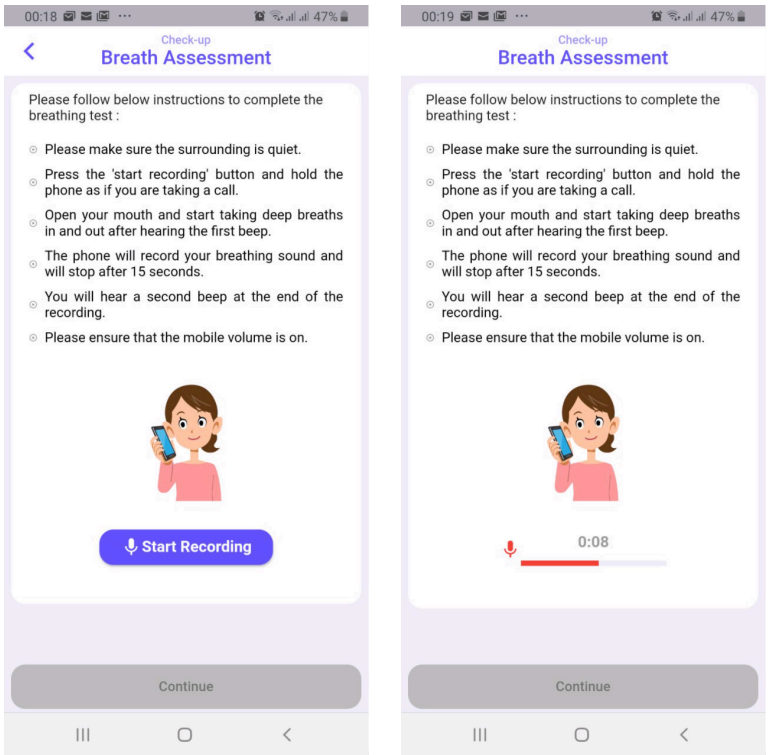


Figure 3 : Gamification of breathing sound recording

In Phase I of the project, the recorded sounds were transmitted to a cloud-based machine-learning algorithm, which would process these sound signals and identify the key parameters that would define a breathing sound as 'normal' or 'abnormal'. It also distinguishes between breathing and cough sounds enabling the App to make use of these parameters in providing the users with necessary guidance.

In the second Phase of the project, the AI algorithm is being trained using thousands of data points (a reference to the amount of training data used) enabling the capture of additional respiratory parameters with higher sensitivity. As the AI model is being trained using sound files obtained from the Sri Lankan population, the chances of it being able to accurately predict various respiratory conditions in the future among Sri Lankans also grow.

Transforming Bed-Side Tests into Digital Tests: A Gamification Approach

Alongside developing the AI for breathing assessment, the team also transformed several bed-side tests used to assess breathing performance into mobile phone-based tests. One of these tests is the single breath counting test. The use of the said test was triggered by the evidence that suggests its usability as a remote monitoring tool, especially when spirometry tools are not available or when there is a risk of spreading a contagion through aerosols[4,5], such as in the case of COVID-19 infection.

After providing the user with the necessary advice to inhale maximally and count from 1 to 30 in a single breath, the App gamifies the process by asking the user to synchronize the count with an indicator shown on the screen, which blinks at the rate of 2 beats per second (The Metronome). While counting, the App will record the sound of counting for a duration of 15 seconds. The captured counting sounds would then be analysed using machine-learning algorithms to identify potential changes in the sound signals that may indicate a respiratory insufficiency.

In addition to the single breath counting test, the App also gamifies the breath holding test[6], which will allow the user to report whether he or she was able to hold breath for 30 seconds or not and also to indicate the duration he or she maximally can hold the breath. The feedback captured would also contribute to the final risk profiling.

Gamification of Single-Breath Counting and Breath-Holding Tests are illustrated in Figure 4.

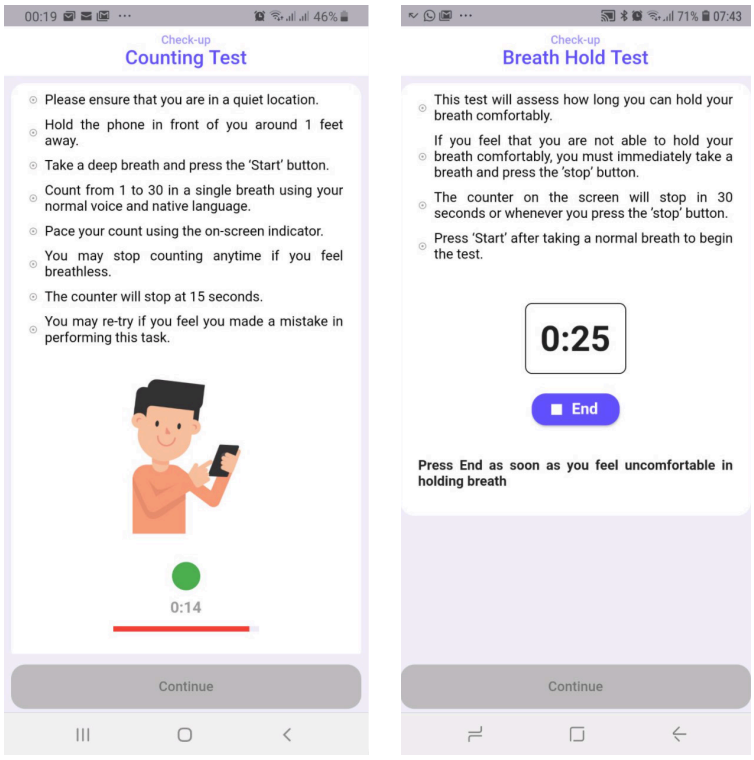


Figure 4 : Gamified bed-side breathing tests

Going the Distance as an Autonomous Digital Health Diagnostic Platform Made in Sri Lanka

The Self Shield App although was initiated as a project to tackle COVID-19, it may be extended to diagnose multiple respiratory conditions from a distance. For instance, the AI may be trained to identify changes in breathing and speech in acute exacerbation of asthma. Such a technology may be used by children and adults alike to monitor their own health and thereby take medications to prevent exacerbations or complications at the right time. It may also be used to monitor patients with COPD thus minimizing the need for hospital admissions and prevent complications through early interventions. The technology may also be used to diagnose potential changes in the airways by analysing voice prints and breathing sounds thus enabling early detection of airway and lung cancer.

The impact of these innovations in low resource contexts such as in Sri Lanka would only be realized if the technology could reach the population in an equitable manner. The use of smart phones as the only digital tool to capture breathing sounds and voice would enable the technology to be scaled-up and affordable for all citizens in the future. However, the success of a project such as this would depend on the multi-disciplinary effort between medical professionals, AI experts, health informaticians, data scientists and other groups of stake-holder professionals. Such efforts should also gain the support of investors as gathering of raw data, training AI algorithms and deployment are costly. More importantly, the effectiveness of the AI initiative would depend largely on the data set that has been used for training. Therefore, the contribution by the people to the efforts of developing an autonomous digital health diagnostic platform of this nature remains fundamentally the key.

Acknowledgements:-

Self Shield App is a project launched by the Commonwealth Centre for Digital Health (CWCDH) as part of its effort to create global public goods. The CWCDH is chaired by Professor Vajira Dissanayake. Dr Pandula Siribaddana is its innovations lead. Other members of the Self Shield Team included, Dr Chathura Wirasinghe (Consultant Respiratory Physician), Dr Dilshan Ganepola (AI/Health Informatics), Dr Sahan Perera (AI/Health Informatics), Mr Dumindu Madushanka (Software Development) and Mr Tony Singarayar (Project Supervision). HISSL, Dialog, Analogy Partners, IQ, DevUpLink, Amazon Web Services, and KPMG have provided various types of support in developing and implementing the Self Shield App.

References:

[1] Benjamens, S., Dhunnoo, P., & Meskó, B. (2020). The state of artificial intelligence-based FDA-approved medical devices and algorithms: an online database. *npj Digital Medicine, 3*(1), 1-8.

[2] University of Cambridge, Covid-19 Sounds App, Available at https://www.covid-19-sounds.org/en/

[3] Dumpala, S. H., & Alluri, K. R. (2017, September). An algorithm for detection of breath sounds in spontaneous speech with application to speaker recognition. In *International conference on speech and computer* (pp. 98-108). Springer, Cham.

[4] Escóssio, A. L., Araújo, R. C. D., Oliver, N., Costa, E. C., Rizzo, J. Â., Sarinho, E. S. C., ... & Correia Junior, M. A. D. V. (2019). Accuracy of single-breath counting test to determine slow vital capacity in hospitalized patients. *Revista CEFAC, 21*(2).

[5] Ali, S. S., O'Connell, C., Kass, L., & Graff, G. (2011). Single-breath counting: a pilot study of a novel technique for measuring pulmonary function in children. *The American journal of emergency medicine, 29*(1), 33-36.

[6] Aggarwal, V., Godbole, G., Agawane, S., Pophale, H., Magar, P., Killedar, R., & Toshniwal, B. (2018). Correlation of breath holding time with spirometry test-An alternative non technician dependent surrogate test for spirometry. *MedPulse Int'l J Med, 5*, 69-73.

stability strength security

At Havelock City, you have the pleasure of calling 18 acres of prime land in the heart of Colombo 'home'.
With three of our residential blocks accommodating hundreds of satisfied homeowners,
our fourth and final phase of luxury apartments is available for purchase.

Havelock City is backed by the strength and stability of Overseas Realty (Ceylon) PLC,
developer of the World Trade Center Colombo, making it a **safe and secure investment for you and your family.**

HavelockCity
A CITY WITHIN A CITY

www.havelockcity.lk

To book a visit, please call us on 0772 505 100.

Overcoming Disability through Rehabilitation

Dr Sachithra Adhikari
Acting Consultant in Rehabilitation, Rheumatology and Rehabilitation Hospital, Ragama

People with disabilities are those who have deficiency in physical or mental capabilities, whether congenital or acquired, making it difficult for an individual to attend to their personal and social needs. In the year 2001 World Health Organization (WHO) introduced the International Classification of Functioning, Disability and Health; a conceptualized framework to define disability. According to this framework, disability is defined as impairment in body structure and function which in turn resulted in activity limitation and participation restriction, affected by contextual factors; personal and environmental facilitators or barriers.

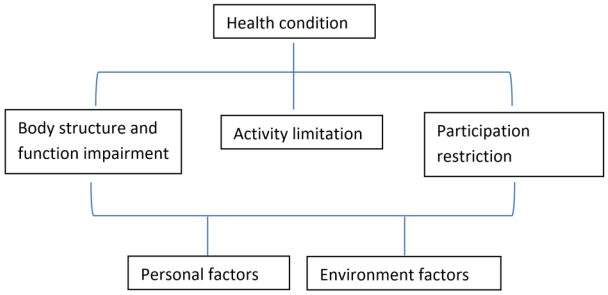


Figure 1 - a conceptualized framework to define disability

"According to this framework, disability is defined as impairment in body structure and function which in turn resulted in activity limitation and participation restriction, affected by contextual factors; personal and environmental facilitators or barriers."

According to the World Report on Disability released in 2011, disability has been identified as a human rights issue as well as a development issue due to its link to poverty[1]. The prevalence of disability is on the rise worldwide in parallel with the increase in noncommunicable diseases and demographic transition towards aging. The most recent demographic and health survey in Sri Lanka revealed that over 1.4 million people (7% of the total population) live with some form of disability, of which majority are economically inactive[2]. Disability and consequent dependency has a substantial negative impact on the economic status of the country. Only 41% of the people with disability receive any sort of income transfer[3].

"The prevalence of disability is on the rise worldwide in parallel with the increase in noncommunicable diseases and demographic transition towards aging."

Rehabilitation is the process which helps overcome disabilities. The United Nations Convention on the Rights of Persons with Disabilities (CRPD) Article 26, describes Habilitation and Rehabilitation as;
"*...appropriate measures, including through peer support, to enable persons with disabilities to attain and maintain their maximum independence, full physical, mental, social and vocational ability, and full inclusion and participation in all aspects of life*".

Rehabilitation is the care needed when a person is experiencing or is likely to experience limitation in everyday functioning; engagement in activities of daily living, mobility and participation. It targets to improve the functional status. It includes modification of the individual's environment - for example, installation of a toilet handrail and addressing the individual's medical, psycho-social needs. Proper rehabilitation enhances one's wellbeing and reduces morbidity. Access to rehabilitation has been declared as a basic human right by the United Nations Convention on the Rights of Persons with Disabilities and the 58th resolution of the World Health Assembly (2005)[4]. It is also a component of Universal Health Coverage.

"Rehabilitation is the care needed when a person is experiencing or is likely to experience limitation in everyday functioning; engagement in activities of daily living, mobility and participation."

Rehabilitation is a process carried out by a multidisciplinary or interdisciplinary team working towards improvement of the function of an individual. It starts with goal setting and implementing the measures, with regular follow-up and assessments until the individual reaches the optimum functional outcome. The multidisciplinary/ interdisciplinary team comprises of specialist eg; Rehabilitation physician, Rheumatologist, Neurologist etc, as a team leader and nursing officer, physiotherapist, occupational therapist, speech therapist, psychologist and social service officer as other team members.

The following criteria need to be considered when referring a patient for rehabilitation;

- Significant persisting deficit
- Stable medical status
- Sufficient/ predictive recovery of cognitive function to learn
- Physical ability to tolerate the active program
- Achievable therapeutic goals

People with moderate to severe disability needs inpatient specialized rehabilitation care while people with mild disability can be managed in outpatient settings. Currently inpatient specialized rehabilitation services are provided by Rehabilitation hospitals in Ragama, Digana, Karapitiya, Jaffna, Polonnaruwa, Vavuniya, Kurunegala and Badulla.

"Currently inpatient specialized rehabilitation services are provided by Rehabilitation hospitals in Ragama, Digana, Karapitiya, Jaffna, Polonnaruwa, Vavuniya, Kurunegala and Badulla."

The disability services provided by the government of Sri Lanka via the Department of Social Services are;

- Vocational training programmes for disabled youth that can enhance employment opportunities. Training centers are situated at Seeduwa, Wattegama, Katawala, Thelambuyaya, Amunukumbura, Ragama, Madampe and Kalawana.
- Monthly allowance for the disabled people with low family income
- Financial assistance for medicine, surgeries, to construct accessible facilities at home and for self-employment
- Funds for construction of a new house in their own land
- Transport allowances paid to children attending special schools and those who attend vocational training institutions
- Assistive devices such as wheel chairs, tricycles, crutches, white canes, hearing aids and spectacles

There is a significant unmet need for rehabilitation in Sri Lanka[5] due to deficiencies in disability-related knowledge among health care professionals and administrative authorities. It is compounded by the limited of availability of rehabilitation personnel and infrastructure and lack of coordinated service provision and community-based rehabilitation. Without proper rehabilitation, improvement of functional status following surgical procedures involving brain and spine, orthopedic and plastic surgeries is difficult. The effort put into managing the acute medical or surgical conditions which lead to disability, would be in vain if it is not followed by appropriate rehabilitation. Ministry of Health, Nutrition and Indigenous Medicine has included rehabilitation in National Health Strategic master plan 2016-2025 to address the above issues. It is a shared responsibility of all health care professionals to ensure that people with disability meet their rehabilitation needs.

References:

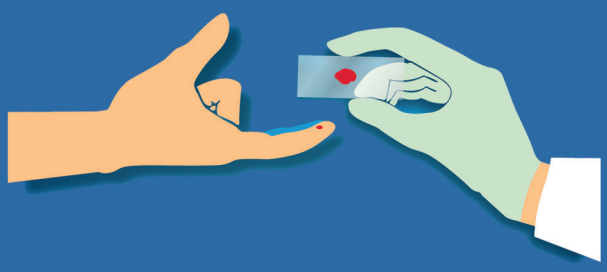
1. World Health Organisation, World Bank. World Report on Disability. Geneva: WHO; 2011.

2. Department of Census and Statistics, Sri Lanka Demographic and Health survey 2016

3. J. Peiris-John1, S. Attanayake2, L. Daskon3, A. R. Wickremasinghe4, and S. Ameratunga, Disability studies in Sri Lanka: Priorities for action, Article in Disability and Rehabilitation, December 2013, DOI: 10.3109/09638288.2013.864714

4. World Health Organization. Sixty-sixth World Health Assembly - Disability. Geneva: WHO; 2013.

5. A situation assessment of Rehabilitation in Sri Lanka 2018, Ministry of Health, Nutrition and Indigenous Medicine



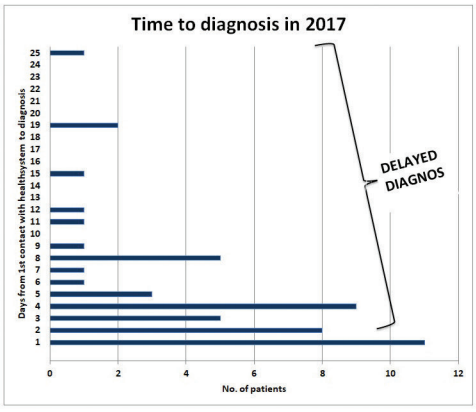
Reduce the Delay in diagnosing imported Malaria

Every single day that a malaria patient is left untreated,

* **His/her chances of survival decreases, &**

* **He/she can transmit the disease to others & re-introduce malaria to Sri Lanka**

Therefore malaria should be diagnosed within 24 hours of onset of fever



Your role:

For all fever patients, always check **travel history** at first interview. If patient has travelled to a malaria endemic country recently, **test for malaria.**

Anti Malaria Campaign Headquarters
Public Health Complex, 3rd floor, 555/5,
Elvitigala Mawatha, Colombo 05
Tell: 011 2 588 408/ 011 2 368 173/ 011 2 368 174
Email : antimalariacampaignsl@gmail.com

Call now for free advice, treatment and drugs

011 7 626 626

www.malariacampaign.gov.lk

APACPH 2020

Virtual Online Conference

Webcast from Colombo, Sri Lanka

"Public Health in New Normal"

5th to 9th December 2020

Abstract Submission Opens: 15th September 2020
Abstract Submission Closes: 15th November 2020
Online Registration Opens: 1st November 2020

Main Conference : 8th - 9th December 2020

5th December 2020 *(Sri Lanka Medical Association/Virtual)*	Workshop on Scientific Writing
6th December 2020 **ECN Workshop** *(Faculty of Medicine, Colombo)*	Leadership for public health in the post COVID-19 era Global Public Health Network Meeting: Role of Public Health Organizations in the New Normal
7th December 2020 *(Sri Lanka Medical Association/Virtual)*	General Assembly APACPH Deans' Meeting: Public health education during in the new normal ECN Photo competition-Kindness and Humaneness during Pandemics
8th December 2020 *(Bandaranaike Memorial International Convention Hall, Colombo, Sri Lanka)*	Ceremonial Inauguration Morning Tea Symposium: COVID-19 –Regional Perspective-Lessons learnt and way forward Lunch Break and Poster Presentations Oral Presentations Panel Discussion -Emerging infectious Diseases Oral Presentations Evening Tea and Poster Presentations
9th December 2020 *(Bandaranaike Memorial International Convention Hall, Colombo, Sri Lanka)*	Prof Walter Patrick Memorial Lecture-Prof Colin Binns Symposium: Promoting healthy lifestyle in the new normal Morning Tea and Poster Presentations Symposium: Environmental health Lunch Break and Poster Presentations Panel Discussion -Technology and Public Health Oral Presentations Evening Tea and Poster Presentations Awards and Closing Ceremony

SLMA Foundation Session 2020

Date: **7th November 2020**
Time: **08.30 am onwards**
Venue: **Professor NDW Lionel Memorial Auditorium**

Time	Topic & Resource Persons
08.30 am	Registration
09.00 - 10.30 am	**Symposium 1 - Stay strong: Live long** **Foods to Live Longer -** Dr. Renuka Jayatissa, Medical Nutritionist, MRI **Exercise is medicine : A Vital sign not to miss** Dr. Chathuranga Ranasinghe - Senior Lecturer, Faculty of Medicine, Colombo & Specialist in Sports & Exercise Medicine **Stress & NCDs -** Dr. Mahesh Rajasuriya, Senior Lecturer, Faculty of Medicine, Colombo & Consultant Psychiatrist
10.30 - 11.00 am	Morning Tea
11.00 - 12.30 pm	**Symposium 2 - Neurology: True companion of your health - Scenario Based discussion** **Approach to acute headache in adults -** Dr. Gaminie Pathirana, Consultant Neurologist, NHSL **Practical Approach: Evaluating Symptoms of Peripheral Nervous System -** Dr. Champika Gunawardana Consultant Neurologist, Teaching Hospital, Rathnapura **Dementia Syndromes: Clinical evaluation and management -** Dr. Manjula Caldera Consultant Neurologist, Teaching Hospital, Anuradhapura
12.30 - 01.30 pm	Lunch
01.30 - 03.00 pm	**Symposium 3 - Safety is No accident** **Eye Injuries & Management** Dr. Chameera Bandara, Consultant Oculoplastic Surgeon at National Eye Hospital Colombo **Safe living-is it a dream?** Dr. Jagath Rathugamage, Consultant Neurosurgeon, NHSL, Colombo **Management of Burns** Dr. Yasas Abeywickrama, Consultant Plastic & Reconstructive Surgeon, Colombo South Teaching Hospital, Kalubowilla
03.00 - 04.30 pm	**Symposium 4 - Know Your Heart Beat - Scenario Based discussion** **Practical approach to Acute coronary syndrome** Dr Sampath Withanawasam, Consultant Cardiologist, NHSL **Interesting Acute Coronary Syndrome presentations Case based discussion** Dr Aruna Wijesinghe, Consultant Cardiologist, BH Panadura Dr Stanley Amarasekera, Consultant Cardiologist, NHSL **Practical approach to sudden cardiac death** Dr Susitha Amarasinghe, Consultant Cardiac Electrophysiologist. TH Karapitiya.
04.30 pm	Evening Tea

For further details please contact SLMA office on 011 2 69 33 24

Call for Nominations for Election to the SLMA Council 2021

Dear members,

I hereby call for nominations for the posts of Council Members (28 positions) of the Sri Lanka Medical Association. Nomination Form for Election to the SLMA Council – 2021 can be obtained from the SLMA office or downloaded from the SLMA web site (https://slma.lk/).

Eligibility and other details regarding submission of nominations

- The nominee should be a member of the Sri Lanka Medical Association for more than **three years since obtaining SLMA membership.**
- Each nomination should be proposed and seconded by a member eligible to vote and shall bear the candidate's name and signature confirming his/her willingness to be so nominated.
- There are three categories of council members:
    a) Four (4) members within 10 years of full registration with the Sri Lanka Medical Council.
    b) Sixteen (16) members who are over 10 years of full registration with the Sri Lanka Medical Council.
    c) Eight (8) members who shall be resident at the time of application in the Eight Provinces of the Island other than the Western Province (one (1) each from each province) only.
- A member can stand for election under one category (a, b or c) only.
- The Council shall verify the accuracy of the information furnished.

For any further details, please contact the SLMA office.

Thank you,
Yours Sincerely,
Dr. Sumithra Tissera
Honorary Secretary
Sri Lanka Medical Association

The duly completed Application Form should reach Dr. Sumithra Tissera, Honorary Secretary, No.06, Wijerama Mawatha, Colombo 07 by post or delivered by hand ***on or before 15th November 2020 4.00 pm.***

The AGM will be held on ***21st December 2020 at 7.00 pm*** *at the Professor N. D. W. Lionel Memorial Auditorium of the Sri Lanka Medical Association.*

UPCOMING SLMA EVENTS

Monthly Clinical Meetings

Time: 12.00noon – 1.15pm

29th October 2020 - Sri Lanka College of Dermatologists
03rd November 2020 - College of Ophthalmologists of Sri Lanka
17th November 2020 - Sri Lanka College of Psychiatrists
26th November 2020 - Perinatal Society of Sri Lanka
01st December 2020 - Ceylon College of Physicians
15th December 2020 - Sri Lanka College of Pulmonologists

Regional Meetings

18th November2020 - Organized by Ruhunu Clinical Society

133rd Anniversary International Virtual Medical Congress
Awards made for papers presented (Oral and poster presentation)

E M Wijerama Award for the best paper
(OP 54) Meteorological Associations of Leptospirosis in Different Climate Zones of Sri Lanka; a Time Series Analysis

Warnasekara YPJN[1], Agampodi SB[1], Ranawaka HCJ[2], Dembatapitiya DRWNK[2], Wijesinghe PATAB[2], Dewapriya IKS[2], Koralegedara KIS[3], Abeynayake R[4]

[1]Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka
[2]Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka
[3]Department of Anatomy, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka
[4]Department of Agribusiness management, Faculty of Agriculture and Plantation Management, Wayamba University of Sri Lanka

S E Seneviratna Award for the best paper (Runner-up)
(OP 44) The Incidence and Patterns of Lung Cancers in Sri Lanka from2001-2010: Analysis of National Cancer Registry Data

Jayarajah U[1], Arulprashanth A[2], Fernando A[1], Ilangamge S[2], Seneviratne SA[1]

[1]Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka
[2]Department of Thoracic Surgery, National Hospital for Respiratory Diseases, Sri Lanka

H K T Fernando Award for the best paper (3rd Place)
(OP 13) Are They Ready to Handle Anaphylaxis? A Study among Pre-Intern Medical Graduates of Three Universities in Sri Lanka

Wijekoon CN[1], Fernando ADA[2], Dissanayake AS[3], Wettasinghe I[1], Gunawardana M[2], Minuwanpitiya G[3], Jayawardane P[1], Thenuwara PM[1]

[1]Department of Pharmacology, Faculty of Medical Sciences, University of Sri Jayewardenepura
[2]Department of Physiology, Faculty of Medicine, University of Colombo
[3]Department of Medicine, Faculty of Medicine, University of Ruhuna

Sir Nicholas Attygalle Award - for the best paper (4th Place)
(OP 26) Prevalence of Cardiovascular Conditions among First Trimester Pregnant Females in Anuradhapura District

Hettiarachchi DAU, Lokunarangoda NC, Agampodi TC, Jayasinghe HMIU, Koralegedara KIS, Warnasekara YPJN, Madhushika MMH, Agampodi SB

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

Wilson Peiris Award - for the best paper (5th Place)
(PP 94) A Double Blind Randomized Placebo Controlled Clinical Trial of Coccinia grandis (L.) in Patients with Newly Diagnosed Type 2 Diabetes Mellitus

Wasana KGP[1], Attanayake AP[1], Weeraratna TP[2], Jayatilaka KAPW[1]

[1]Department of Biochemistry, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka
[2]Department of Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka

SLMA Prize for the best Poster
(PP 28) Risk Factors and School Absenteeism in Children with Asthma from an Urban Area of Sri Lanka

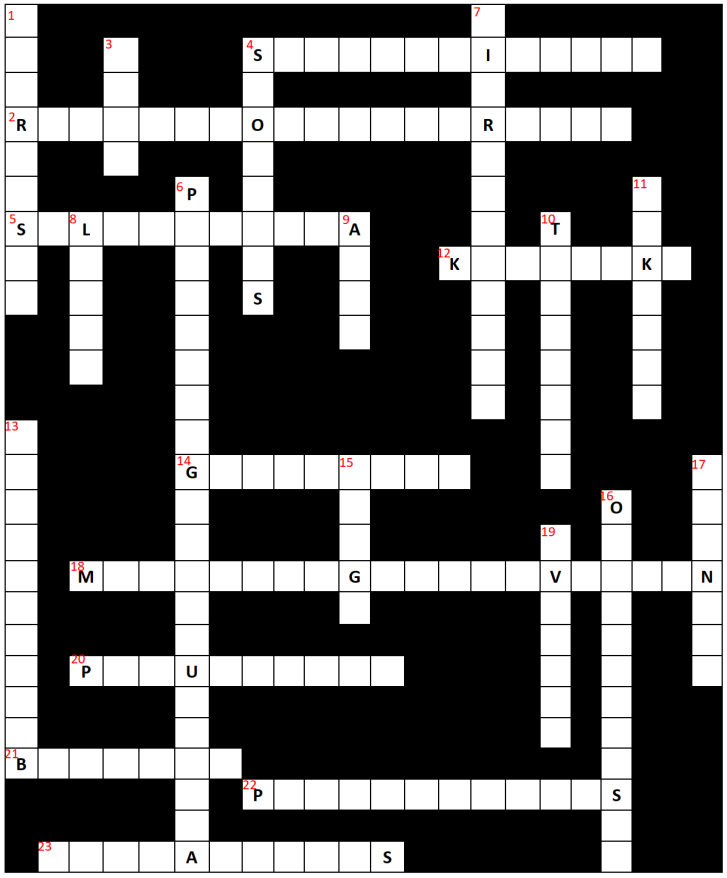
Fernando YN[1], Anuradha KWDA[2], De Silva U[1], Alahakoon M[3], Handunnetti S[1], Wickramasinghe P[2]

[1]Institute of Biochemistry, Molecular Biology and Biotechnology
[2]Department of Paediatrics, Faculty of Medicine, Colombo
[3]Faculty of Medicine, Colombo

Note: Special prizes awarded for subjects/fields of study will be published in the next issue of SLMA NEWS

Medical Crossword – Rheumatology Decoded

By Dr Chiranthi K Liyanage



ACROSS

2 - A chronic, systemic, inflammatory disorder causing a symmetrical deforming arthritis.
4 - Classically causes an evanescent, salmon-coloured, macular or maculopapular rash
5 - The presence of thickened, hardened skin
12 - One of the most common vasculitides of childhood
14 - Microscopic polyangiitis is distinguished from granulomatous polyangiitis and eosinophilic granulomatous polyangiitis by the absence of _____formation.
18 - An aggressive and life-threatening syndrome of excessive immune activation complicating juvenile idiopathic arthritis
20 - Positively birefringent crystals are seen in joint fluid
21 - Affects vessels of all sizes and characterised by recurrent oral aphthae and genital aphthae.
22 - An inflammatory myopathy with cellular infiltrates scattered through the fascicle
23 - Non-infectious endocarditis associated with systemic lupus erythematosus

DOWN

1 - Associated with nail pitting and spondyloarthritis
3 - Loop and thiazide diuretics may precipitate acute flares
4 - An autoimmune inflammatory disorder causing diminished lacrimal and salivary gland function
6 - Characterized clinically by aching and morning stiffness about the shoulders, hip girdle, and neck
7 - Causes chronic, wide-spread musculoskeletal pain and fatigue
8 - ANA test is positive in virtually all patients
9 - Leads to venous or arterial thrombosis and/or an adverse pregnancy outcome
10 - May present with absent or diminished peripheral pulses and carotidynia
11 - A cause of necrotising lymphadenitis
13 - A targeted synthetic disease modifying antirheumatic drug
15 - Giant cell arteritis primarily affects _____ vessels
16 - Characterized by low bone mass and increased skeletal fragility
17 - Occurs due to an exaggerated vascular response to cold temperature or emotional stress
19 - A syndrome to define patients who develop manifestations of more than one discrete systemic rheumatic syndrome

Answers of the Medical Crossword

ACROSS

2 - Rheumatoid arthritis
4 - Still's disease
5 - Scleroderma
12 - Kawasaki
14 - Granuloma
18 - Macrophage activation
20 - Pseudogout
21 - Behcet's
22 - Polymyositis
23 - Libman-Sacks

DOWN

1 - Psoriasis
3 - Gout
4 - Sjogren's
6 - Polymyalgia rheumatica
7 - Fibromyalgia
8 - Lupus
9 - APLS
10 - Takayasu
11 - Kikuchi
13 - Tofacitinib
15 - Large
16 - Osteoporosis
17 - Raynaud's
19 - Overlap

THOUGHTS OF A WHITE-COLLAR WORKER: BEFORE AND AFTER CORONA

From an e-mail sent by Mrs Esther Amarasekera
Extracted and presented by Dr B. J. C. Perera

I was eagerly looking for a salary hike.
Today, I am looking for the salary.

I was looking for a promotion.
Today, I am barely managing to hold on to my position.

I was thinking about quitting my job.
Today, I am strongly sticking to my job.

I refused to carry my work and laptop home.
Today, I have moved my office to my home.

I was planning for a long vacation.
Today, I am waiting to go back to my work station.

I was waiting for the working week to end.
Today, I am waiting for Corona to end.

I was using video calls to say hi to my friends and relatives far away.
Today, I am on video calls with my neighbours as well.

I used to dress for the occasion.
Today, there are no occasions to dress for.

I was earlier worried about the future.
Today, I am worried about the present.

DID YOU KNOW

LIVING AT CAPITOL TWINPEAKS

Overlooking the coveted Beira Lake, Indian Ocean, Colombo cityscape and the Port City, Capitol TwinPeaks - located in Colombo 2, offers apartment owners

- ☑ Anticipated high rental yields
- ☑ Freehold title
- ☑ Expected high Capital Gains
- ☑ Ideal unit mix for investment
- ☑ Higher ROI comparatively
- ☑ Located in the heart of Colombo

TO RESERVE YOUR APARTMENT
CALL US ON +94 770 788 788

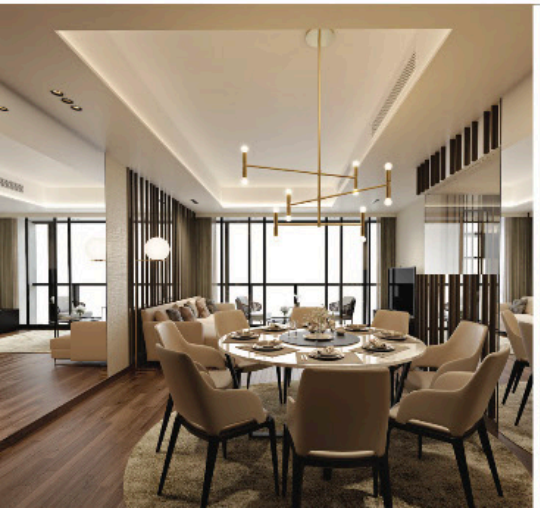
Design & Build
Sanken

Developed by
CAPITOL
DEVELOPERS
(A member of Sanken Group)

CAPITOL
TWINPEAKS

24, Staple Street Colombo 2

E-MAIL : INFO@CAPITOL.LK
WWW.CAPITOLTWINPEAKS.COM



WWW.SLMA.LK

"WIJERAMA HOUSE"
NO.06, WIJERAMA MAWATHA,
COLOMBO 07, SRI LANKA.
+94(11) 269 3324
OFFICE@SLMA.LK

9 772550 277003