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SLMA NEWS+

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Cover Story
Induction of the President & Presidential Address

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SLMA President

Dr Ananda Wijewickrama
MBBS, MD, MRCP (UK), FCCP
Consultant Physician,
National Institute of Infectious Diseases

President's Message

Dear SLMA Members,

I thank you for the singular honour bestowed on me by electing me as the 130th president of the SLMA. I accept this position with humility, being acutely aware of my responsibilities in upholding the principles upon which this great institution was founded in 1887.

Since joining the SLMA twenty years ago in 1999. I have served it in various capacities as Vice President, Assistant Secretary and as a member of the SLMA Expert Committee in Communicable Diseases, etc. Being appointed the President is the pinnacle of a long journey of my professional career and very definitely a personal achievement.

The overall theme selected for this year is, *'Ensuring Equity in Healthcare during Challenging Times'*. Challenging times, such as public health crises or emergencies, can exacerbate existing healthcare disparities and inequalities.

While the Council will take all necessary steps to organize a very lively calendar of activities for the year, I would like to invite all our

members living in Sri Lanka as well as those residing abroad, to play an active role and to participate fully in all SLMA events planned for the year, including the flagship event the 137th Anniversary International Medical Congress which will be ably organized by the Academic Committee of this year. We would like you to provide us with regular feedback and constructive criticism to improve our activities and be in a better position to make them more attractive to all grades of medical professionals and our members.

The outgoing President, Dr Vinya Ariyaratne made 2023 a memorable year by making SLMA a household name and also working on many key advocacy issues, especially on irregularities associated with the medicinal drug approval process by the NMRA and purchase of medicines by the Health Ministry.

The Council pledge to preserve the SLMA's long traditions, and further uplift its commitment to advocacy, continuous professional development to improve skills and knowledge and protect as well as improve the ethical practice of medicine by all medical professionals to provide quality enhanced health care to all the citizens of the country, would be our guiding beacon in our activities.

I would like to offer each and every member of the SLMA and their families, the very best wishes for good health and happiness throughout the year.

Yours Sincerely

Dr Ananda Wijewickrama,
President, SLMA

A Message from the Co-Editors

We request all SLMA Members to contribute to the SLMA News for the year 2024. The magazine is shared with the 4500 + SLMA members, uploaded to the SLMA website & facebook pages and the 250 printed copies are distributed among Medical Faculties, Professional Associations/ Colleges, Ministry of Health, UN Organizations, etc.

The Guidelines for articles are given below;

- Title: Give a catchy title, not lengthy
- Word count: about 2000
- Number of references: maximum 8 (preferably less)
- Referencing style (preferably): Vancouver
- Images: It is the responsibility of the author to get permission from the original author (Please give the reference to the original owner)
- Sending images: Please send as attachments. Pasting images on MSWord reduces the quality of image and affect the print quality outcome.
- Author details: Prefix, Name, Designation, Current Working Station

For further clarifications/ details, please e mail to;

The Co-Editors - SLMA News+ - office@slma.lk

Thank you
Dr Kumara Mendis & Dr Sumithra Tissera

The Presidential Address 2024

Good Evening, Ladies and gentleman, Dr Vinya Ariyaratne out-going President, Trustees of SLMA, Past Presidents, Council Members, Members of SLMA, Ministry Officials, Presidents and representatives of the Professional Colleges and Associations and all other distinguished invitees,

It is with much pride and sincere humility that I stand before you as the 130th President of the Sri Lanka Medical Association. I became a life member in 1999, 8 years after graduation. Since entering the Council in 2004, I have held many positions at the SLMA, including being the Treasurer and Vice President. I also served as a member of the Expert Committees on Communicable Diseases, Medicinal Drugs and the Media. I have contributed in many other ways to the progress of the SLMA over the years.

I never envisaged in my wildest dreams to apply to be the President of SLMA, but the circumstances changed and here I am standing in front of you addressing this distinguished gathering as the President, SLMA. I would like to thank the Past Presidents' and the members of the SLMA for the trust and confidence placed on me and select me for this position of President, SLMA for the year 2024.

Over the last 20 years that I have been involved with SLMA, I got to see that SLMA has widened its role significantly from a professional organization addressing professional development of its members, to an organisation that now plays a major role in addressing advocacy and being involved in addressing issues related to patient care.

In 2020, SLMA had to get involved in handling COVID-19. In addition to the regular public education initiatives, an advocacy role played with the telephone hotline DocCall 247 is commendable. In 2021, with COVID-19 spreading more in the country, we at the SLMA had to take a tough stance, going beyond its traditional role.

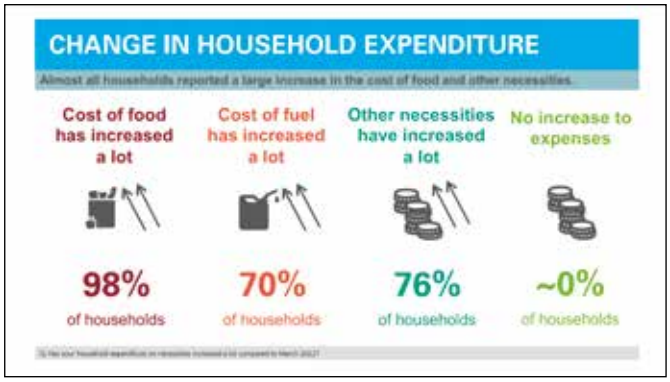
In 2022, with COVI-19 going down, the SLMA started pressurizing the authorities to take action on other important areas such as Road Traffic Accidents (RTA).

2023 was entirely different. While re-establishing the old ties, the SLMA had to address new issues faced by medical professionals and patients. The dearth of medicines was affecting patient care. This situation was made worse with poor quality drugs being supplied to the hospitals. The role played by the SLMA was exceptional and unprecedented. Especially getting the GMOA and the other key experts to the same table was the turning point in the issue.

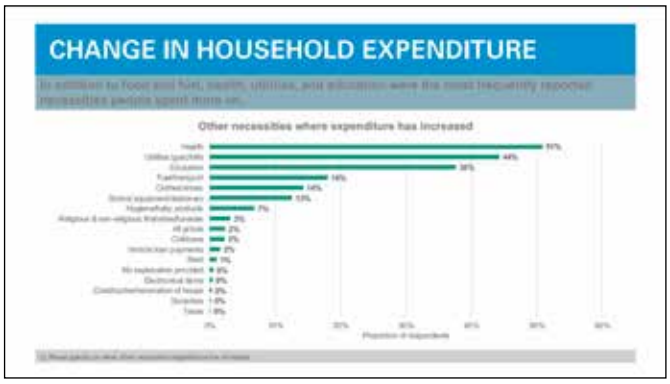
2024, is going to be a challenging year. I am going to do a brief analysis of the situation and its impact on health and then present my plans for the year.

Even though certain improvements have been made, we are well aware that the country is deeply in an economic crisis. The report 'Impact of the economic crises on the households' social and economic wellbeing' – Round 7, October/ November 2022 published by UNICEF 1 year ago still represents most of the current facts.

The UNICEF report shows that picture has not changed much. The cost of fuel, food and other necessities have gone up significantly. However, other than food and fuel, health expenditure is the most affected segment followed by utilities and education. Nevertheless, most households that needed healthcare services were able to access them (Slide 1 & 2).

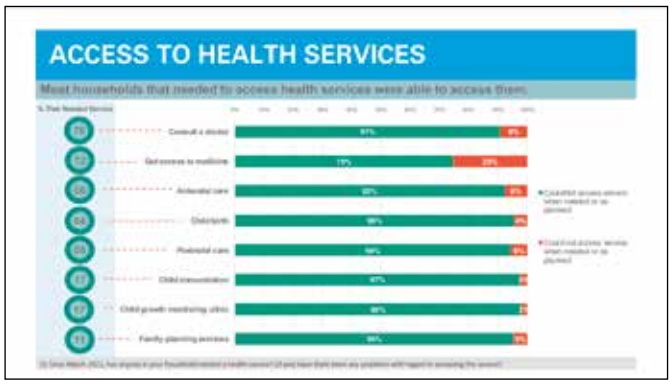


Slide 1



Slide 2

However, by the end of 2022, there were many who could not access the services due to unavailability of medicines in hospitals (Slide 3 & 4). I must say that there is some improvement in the situation now.



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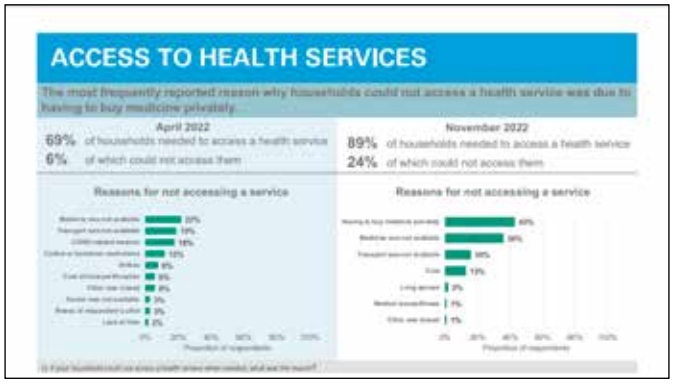


Slide 4

A UNDP survey shows that over half of the Sri Lanka population is multi-dimensionally vulnerable. The two key areas highlighted were education and health.

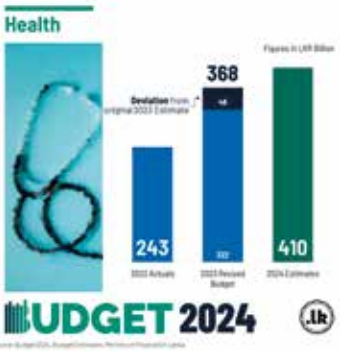
The editorial in Lancet, 'Sri Lanka at 75: Safeguarding its health achievements' - October 28th 2023, discusses the challenges faced by the free heath system in Sri Lanka.

It says that "Sri Lanka's achievements in health have long been a source of national pride. The expansion of Universal Healthcare Coverage, with a focus mostly on the poor, dates back to the 1930s. Since, 1951 Sri Lanka has delivered a much-lauded tax-funded, and free at the point of delivery healthcare service, although it relies on substantial private sector outpatient care for those who can afford it. For the past 70-80 years, welfare policies focusing on free education, healthcare, and women's' autonomy have enabled Sri Lanka to achieve relatively high standards of social and health development (compared with its regional peers), despite being classified as a lower-middle-income country by the World Bank and with a current annual health expenditure of only 1.6% of GDP."

The Lancet editorial further says "A gradual weakening and inadequate financing of state health services, growing concerns about the erosion of public health governance (including the integrity of drug procurement processes), and trends towards privatization present a serious threat to ensuring access to health for most Sri Lankans".

The editorial continues that the "citizens' health is a public good that it cannot afford to compromise. Indeed, the current crisis could afford an opportunity". I firmly believe that we should use this opportunity.

Slide 5, shows the money allocated for health in 2022, 2023 & 2024. In fact, you can see the amount esarmarked during the last year was much higher than 2022, even though it was said that there was no money. It is some relief to note that the money allocated for health for 2024 from the National budget has been increased significantly, when compared to the 2022 allocation. However, various taxes, high cost of living and high cost of medications, the health seeking behaviour of people are all bound to affect the people.



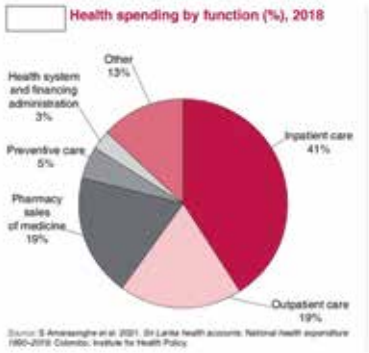
Slide 5

Financial Stability Review published by the Central Bank shows the house-to-house sector year-on-year credit growth, continues to be negative (Slide 6) and the reasons given are obvious; deterioration of income level and high living costs. It further shows how non-performing loans in the household sector is increasing (15.7% in 2022 Q4 to 17.7% in 2023 Q2).

Slide 6

The report further states that it is expected th at the existing macro-financial vulnerabilities would dissipate in the period ahead. But it also says that the path we have to take is arduous and narrow. Moving alone is challenging. The challenge is made worse by the fact that 60% of expenses in health sector is for inpatient

care and outpatient care (Slide 7). And another 20% for medicines and preventive care is only allocated 5%.



Slide 7

In these circumstances it is important for the SLMA to *Ensure equity in Healthcare during challenging times,* which really is a challenge in itself. I believe, as the premier medical organization of the country we must address these challenges and try not only to maintain but also to improve the free healthcare system and its achievements.

Therefore, quite obviously, we must focus on low cost, high impact interventions of which I am going to propose a few.

1. One of the key issues we had last year was the dearth of medications. The inter-collegiate committee formulated by SLMA in 2020, when I was the President of The Ceylon College of Physicians (CCP), discussed this problem with the Ministry of Health (MoH) on this. As a remedial measure the formulary was revisited, and the total amount of drugs was reduced from around 1250 to 850 drugs.

   This will not only save funds for health, but also will rationalize patient management. Now we must further continue this effort and classify these 850 drugs using the Vital, Essential and Non-essential (VEN) analysis to prioritize the needs and identify the prioritized drugs.

2. SLMA has been working with the media for a long time. Over the recent years SLMA has become a most reliable source for the media. We have no political agenda, but we have experts who are willing to educate the public on many health issues.

   In fact, we have already started the year with a media briefing targeting the special immunization campaign organized by the MoH.

3. In the present context social media makes a huge impact, especially among the young. We cannot do any campaign or education programme without social media. Once again, the SLMA should be the most reliable source of information. We should advocate appropriate interventions aiming to change attitudes and practices of the public.

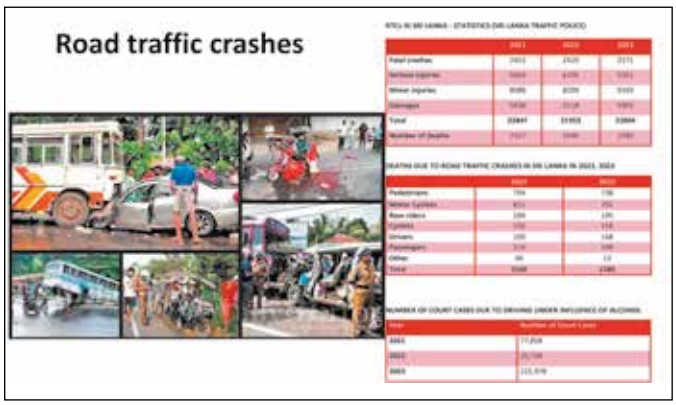
4. Clinical Audit is another low cost, high impact intervention we could and should use in the health sector.

   It is defined as a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. It is a way to find out if healthcare is being provided in line with standards and lets the care providers and patients know whether their service is doing well, and whether there could be improvements (NHS)

   The audit can be done by many categories of staff - doctors/ nurses, etc and can be done in their own working places. There are programmes already with the quality unit of the MoH, going on. But, I feel that we can go further. We need to make clinical audit a routine practice and include this in the undergraduate curriculum and we need to encourage doing audits and share the data of these audits and changes in practice nationally.

   I suggest that we should convince the MoH and the PGIM to make this a mandatory requirement for PG training. At present most of the PG trainees are doing research, which finally does not have much impact other than serving their CVs. But if instead of that, or in addition to that, if they are entrusted to do an audit it will improve the services provided for the patients.

5. Road Traffic crashes is another important issue which the SLMA is already focusing on. We can see the figures for the last 3 years (Slide 8) and the number of crashes/deaths/injuries and of course these are only the reported numbers. And we know that there are many more unreported ones.



Slide 8

To make the things work, the last column of the table shows the cases filed against the drivers in

2023. It is five times more than the previous years.

The SLMA committee on this is already working and doing a lot of work – school road safety programme/Colombo city safe road project/NCD screening for trishaw drivers to get their support. They are also working on establishing a Presidential Task Force, because we need some decision makers to get involved in this to make some decisions and I believe, this year too we will pursue this. I sincerely hope that we will be ablet to get this done.

I also wonder whether we can have a 'Good Driver' certification programme with the motor traffic department, so that people would be induced to get this certification. Maybe a collection of points for good driving would be in order.

6. Over the last few years, SLMA has been working not only as an advocacy group, but also as a pressure group. When authorities turn a blind eye to expert opinion, we must act as a pressure group. One such good example is smoking. The CDC USA which has a good recording system shows the impact of smoking in USA (Slide 9).

Slide 9

I believe the figures are quite similar in our country as well as our region. Maybe still the number of females dying due to smoking related causes may be less. But we do know that the number of females smoking are now going up.

The tobacco-taxation formula has been introduced by the government as a policy in 209. Unfortunately, the economists seem to have forgotten this. If the prices of cigarettes were based on these formulae the government could have earned 45 billion rupees and the cumulative revenue escalated from 2020 – 2022 would have been 85 billion rupees.

This is where we can act as a pressure group to implement the tax formula of 2019 to earn extra revenue for the country.

7. Another serious problem coming up and has come to the notice of health professionals/public is environmental pollution, especially the pollution with plastics.

Year 2022, alone, Sri Lanka has imported plastics and articles worth of 733 billion US dollars (Slide 10). And you can see how the plastic imports have increased over the years. SLMA should come to the forefront in the fight against plastics and suggest ways and means of reducing the use of plastics and promoting the use of alternatives.

We need to educate the public regarding the hazards of plastic use, issue guidelines for use of plastics, promotion of alternatives and pressure the authorities to use alternatives.

When we were children, we did not see any of these things. But, we now use them as professionals. I believe we should take the lead in promoting such alternatives.

Slide 10

8. SLMA has been playing a major role in advocacy in education for disease prevention and health promotion.

These are necessary at all levels, especially in school education. MoH, SLMA and other professional organizations have been involved in doing many advocacy programmes. But, how effective are these programmes ?

We say, 'Prohibit use of fast foods in school canteen' and 'Make nutritious food available in the canteen/ student to bring'.

But, at what point/level would these advocacy effort/rules have the highest impact?

We at IDH were conducting the O/L examinations for children admitted to our wards during the examination and when I went through the home-science textbook of a child, I only realized that

they were taught how to prepare buns/ short crust pastries/ puff pastries. How many of these kids in their whole life are going to do this? How many of these kids are going to do this at home? Isn't it ridiculous?

Aren't these the places where change can be made?

These are the things that I believe we should address.

It becomes more important as now we have the prevalence of diabetes increasing, now in adults it is 23% and to make the things worse, last 10 years 2009 – 2018, the sugar consumption has increased by 150% (494, 420 MT in 2009 – 645, 000 MT in 2018).

The expenditure for importation of sugar in 2018 is 40,450 million rupees.

9. The SLMA has been doing education programmes for doctors, medical undergraduates, nurses and other categories of healthcare workers, public education and education of media and we were even trying to educate the policy makers. This work will continue in 2024 as well.

10. One of the key mechanisms of SLMA is the many Expert Committees of SLMA. These consist of subject specialties in different aspects of healthcare ranging from health promotion, prevention, clinical care, research, rehabilitation, and palliative care.

We will continue to strengthen these Expert Committees.

2024 is going to be a challenging year. The composition of the SLMA Council reflects the diversity of our nation, in terms of ethnicity, religion, specialization within the medical profession, and most importantly, consisting of a dynamic and competent young, and not so young, professionals in the frontline, backed by two generations of elders who continue to be the guiding light of SLMA with their wisdom. With their unstinted support I believe, I would be able to achieve this uphill task in the year 2024. Finally, I believe I would have the support not only of the council, but all SLMA members and the members of the profession. I am also convinced that we should all strive to achieve what the SLMA moto says 'Work for the betterment of all Sri Lankans'. We do have a lot to do during this year. I am sure with the cooperation of everybody around and our well-wishers, we will prevail.

In conclusion, on this august occasion, I would like to pay tribute to my parents, my school Mahinda College, Galle, and my teachers in school.

My teachers at the Faculty of Medicine, Colombo, especially late Professor Carlo Fonseka, Professor Lalitha Mendis, Professor Krisantha Weerasuriya, Professor Diyanath Samarasinghe and late Professor Earl de Fonseka.

Consultants under whom I was privileged to have trained. Dr Sarath Gamini de Silva, Dr DS Liyanarachchi, Dr Ruwan Ekanayake, Professor PL Ariyananda, Professor Sarath Lekamwasam, Professor R Mohideen, Dr Mahinda A Ekanayake and Dr Upul Wijewardena.

I would like to acknowledge the support given to me and my hospital by Dr Palitha Mahipala, Dr Asela Gunawardena, Dr Lakshmi Somatunga, Dr Sunil de Alwis, Dr Sudath Dharmaratne and Dr Lal Panapitiya of the MoH and Past & Present Directors of the Hospital.

Doctors, nurses & all other staff in my hospital, especially Dr Damayanthi Idampitiya, my other Co-physician & Ms Geethani Udugamkorala, Chief Nursing Officer of the Hospital and my patients.

Finally, my family, for tolerating my long working hours.

Thank you. Please do have a great evening.

Dr Ananda Wijewickrama
President, SLMA 2024

Activities in Brief
(24th December 2023 - 15th January 2024)

SLMA Saturday Talks

The first SLMA Saturday Talk for the year 2024 was held on **13th January** on *'Acute Bacterial Lower Respiratory Tract Infections in Children'* by Dr BJC Perera, Specialist Consultant Paediatrician

Other Activities

Religious Activities

An all-faith religious ceremony was held at the Sri Lanka Medical Association to invoke blessings for the President, council, staff and membership on **1st January** the first working day for the year 2024.

The President and council also paid homage to late Dr and Mrs E M Wijerama who donated the Wijerama House to SLMA.

Media Activities

Dr Vinya Ariyaratne, Past President, SLMA was a panelist at a discussion on *'Will Sri Lanka Turn the Corner in 2024?'* aired on TV1 'Face the Nation' on **3rd January**.

A press conference was organized by the SLMA Media Committee and the SLMA Expert Committee on Communicable Diseases on *'Our Responsibility in controlling measles in Sri Lanka: How can we contribute?'* on **4th January.**

The resource persons were Dr Ananda Wijewickrama, President SLMA, Dr BJC Perera, Senior Consultant Padeatrician and Dr Samitha Ginige, Chief Epidemiologist, Epidemiology Unit, MoH.

Dr Vinya Ariyaratne, Past President, SLMA appeared on Siyatha TV, Adaraneeya Jeewithaya to discuss on *'Patients' Rights & Responsibilities'* on **10th January.**

First Council Meeting

Lighting of the oil lamp by the new and old office bearers and the unveiling of the portrait of Dr Vinya Ariyaratne, the Outgoing President of Sri Lanka Medical Association (SLMA), was held prior to the first council meeting on **5th January**.

Pre-congress Workshops

The first pre-congress workshop on 'Initial Management of Trauma at the Emergency Department' was held on **15th January** at the Neurotrauma Auditorium in collaboration with the Accident & Orthopaedic Service of National Hospital of Sri Lanka (NHSL). It was organized as a hands on session especially to improve the skills of the participants.

The names of resource persons are as follows;

Professor Uma Anushka Bagga, Assistant Professor of Surgery at the Department of Trauma Acute Care Surgery & Critical Care, Dr Viraj Rohana Abeykoon, Consultant General Surgeon with Special interest in Colorectal Surgery, Accident Service, NHSL, Dr Mihira Bandara, Consultant General Surgeon, Accident & Orthopaedic Trauma Unit, CSTH, Dr Sajith Ranatunga, Consultant General Surgeon & Colorectal Surgeon, NHSL & Dr W N Nidhan Perera, Acting Consultant Orthopaedic Surgeon, NHSL.

Induction of the President

Dr Ananda Wijewickrama was inducted as the 130th President of the Sri Lanka Medical Association (SLMA) at the New Auditorium of the PGIM, Rodney Street, Colombo 8 on Saturday, 6th January 2024.

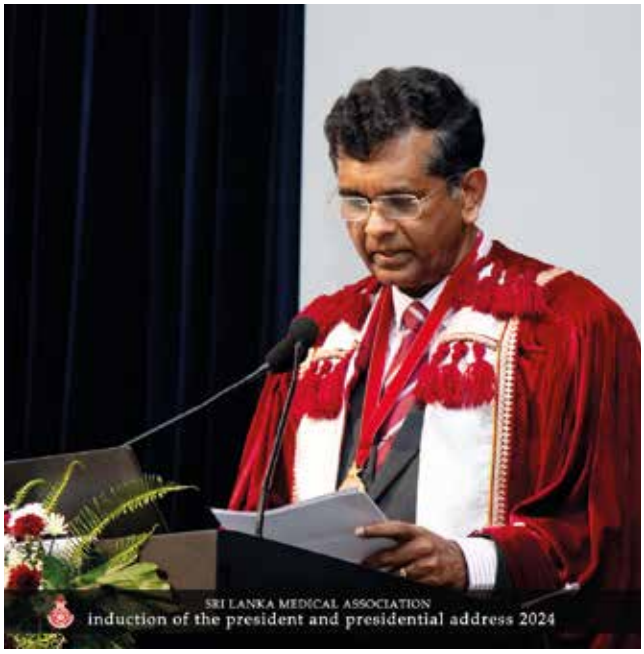
Past presidents, council members and members of the SLMA, ministry officials, representatives of UN organizations and other invitees participated at the event.

Dr Vinya Ariyaratne, the outgoing president, presented a comprehensive report of activities undertaken during his tenure in 2023.

Dr Ananda Wijewickrama, in his Presidential Address, introduced the theme for the year 2024, *'Ensuring Equity in Healthcare During Challenging Times'* and shared his views on many aspects of healthcare that was having an impact on the health and wellbeing of the citizens. He requested the support of SLMA membership, medical fraternity and the media to achieve his vision during his presidency.

Medical students from the Faculty of Medicine. Colombo, entertained the audience with soulful music of the legendary maestro Mr Premasiri Khemadasa.

The ceremony concluded with a very sumptuous buffet dinner at the PGIM dining hall.




MD, MPH,
Com. Med.
ping Pres


SRI LANKA MEDICAL ASSOCIATION
induction of the president and presidential address 2024


2024













CSS


Deshabandu Dr. C.G. Uragoda Oration on the History of Medicine 2024

"History of Leprosy in Sri Lanka: a Saga of three millennia"

MONDAY

06:30 PM

26 FEBRUARY 2024

SPEAKER

Dr. Indira Kahawita

MBBS, MD Dermatology, DTM & H,
Consultant Dermatologist,
Anti Leprosy Campaign

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THE SLMA COUNCIL - 2024

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Consultant Physician. National Institute of Infectious Diseases

Immediate Past President
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Past President of College of Community Physicians of Sri Lanka, President of Sarvodaya Movement

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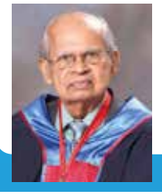

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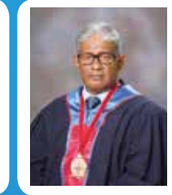

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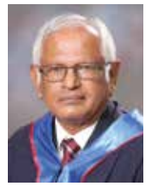

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Prompts to facilitate shared care in hyperthyroidism

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Thyrotoxicosis is a condition encompassing multiple aetiologies, manifestations, and potential therapies. Although many clinicians use the terms thyrotoxicosis and hyperthyroidism interchangeably, they have distinct meanings. The term" thyrotoxicosis" refers to a clinical state that results from inappropriately high thyroid hormone action. While term" hyperthyroidism" is a form of thyrotoxicosis due to inappropriately high synthesis and secretion of thyroid hormones by the thyroid gland.

This review gives a simplified overview of hyperthyroidism rather than a comprehensive description to increase the understanding and awareness of the disease across a wider spectrum of health care professionals.

Q1). What is meant by overt and subclinical hyperthyroidism?

Overt hyperthyroidism is defined as a low TSH with elevated serum free triiodo thyronine (T3) and/or free tetraiodo thyronine or thyroxine (T4).

Subclinical hyperthyroidism is defined as a low TSH with values within the normal reference range for both free T3 and free T4

Q2). When to suspect hyperthyroidism?

It should be suspected in the presence of anxiety, emotional lability, heat intolerance, tremors, palpitations, increased sweating, and weight loss despite normal or increased appetite. However, some patients can have milder symptoms. Cardiopulmonary symptoms may predominate in the elderly. Some older patients may present with apathetic thyrotoxicosis where the symptoms and signs are often blunted.

Q3). How to diagnose hyperthyroidism biochemically?

When the clinical suspicion is low, TSH may be sufficient to exclude the diagnosis especially concerning the cost.

However both TSH and free T4 are recommended in the presence of high clinical suspicion to assess the severity and burden of the disease.

Free T3 is not measured routinely unless T3 thyrotoxicosis or subclinical hyperthyroidism is suspected in the presence of suppressed TSH and normal free T4.

Q4). What are the causes of hyperthyroidism?

More common causes	Less common causes
Graves' disease (GD)	Hashimoto thyroiditis
Toxic multinodular goitre (TMNG)	Sub-acute thyroiditis
Toxic adenoma (TA)	Excess exogenous thyroid hormone
	Ectopic thyroxine source: struma ovarii
	TSH secreting pituitary adenoma

Q5). How should hyperthyroidism be evaluated following biochemical diagnosis?

Value of free T4 indicates the burden of disease and helps in deciding the doses of thionamides.

Aetiology of hyperthyroidism needs to be determined. This will help us to predict the nature of the disease progression, prognosis and expected outcome and best mode of treatment.

Q6). How to determine the aetiology of hyperthyroidism?

GD is commoner among the young while TMNG tends to occur in older age.

Apart from that, patients with a diffuse goitre and recent onset of orbitopathy, the diagnosis of GD is likely and further evaluation may not be necessary.

When the aetiology is not clear, ultrasound scan of thyroid gland is suggested considering the wide availability and cost effectiveness. Presence of diffuse a goitre with increased vascularity suggests GD. Ultrasound features of thyroiditis may not provide discriminative evidence. Severe GD may show the characteristic thyroid inferno pattern on doppler study.

Measuring thyrotropin receptor antibodies (TRAb) is an option, but it is costly. If TRAb is elevated, GD is likely, as it is highly sensitive (97%) and specific (98%) for the diagnosis. However, it may not be detectable in a minority of patients.

Thyroid scintigraphy to delineate the thyroid uptake is another modality. However, its use is limited due to the cost. Diffusely increased uptake suggests GD, whereas focal areas of uptake suggest TMNG or TA while low or absent uptake suggests destructive thyroiditis or exogenous thyroid hormone excess. Nature of the nodules (hot or cold nodule) could also be assessed with the uptake scan.

Q7). When should the patient with diagnosed hyperthyroidism be referred for specialized care? (physician/ endocrinologist)?

Specialized care is preferred in severe hyperthyroidism, when the aetiology is not clear, during pregnancy, when adverse events occur, and when there is difficult to treat, refractory or relapsing disease.

However, an input from a relevant specialty may be necessary to determine the aetiology and definitive mode of treatment in most of the patients with hyperthyroidism.

Hence, the principle of shared care is recommended for all patients with hyperthyroidism with specialized input as and when required during the course of treatment and follow up.

Q8). What are the management options for hyperthyroidism?

Medical treatment with thianomides (carbimazole (CBZ) or propylthiouracil (PTU)) is considered as first line option. CBZ is widely used as the preferred drug among thianomides, as PTU is known to cause fatal fulminant hepatitis. However, PTU is generally recommended in first trimester of pregnancy (known to cause less severe teratogenicity when compared to CBZ) and in thyroid storms.

Titration method is the currently recommended regime. The thianomide dose is decided based on biochemical severity of the disease. Higher doses may be needed initially, and then it should be gradually titrated to maintenance doses once biochemical euthyroidism is achieved. GD usually goes into remission with thianomides in 6 -18 months. However, remission is unlikely in TMNG and TA, although hyperthyroid state could be controlled with thianomides. Therefore, definitive therapy either with surgery or radioactive iodine treatment (RAI) is recommended in these conditions.

Difficult to treat or relapsing GD also could be treated with surgery or RAI.

Q9). What are the adverse effects of thianomides?

Agranulocytosis and hepatotoxicity are rare but major reactions. Baseline full blood count and transaminases are recommended. However, routine monitoring is not necessary unless there are symptoms of fever, sore throat, abdominal pain, anorexia and jaundice. Although these idiosyncratic reactions are dose independent in nature, they are yet commoner with higher doses.

Both agents cannot be used in agranulocytosis due to cross reactivity. However, the alternative drug could be used in hepatic toxicity as CBZ generally causes cholestasis while fulminant allergic hepatitis is seen with PTU.

Minor cutaneous reactions may be managed with concurrent antihistamine therapy without stopping the particular agent.

Q10). How are hyperthyroidism patients managed symptomatically?

Non-specific beta blockers (propranolol) are preferred due to its additional peripheral inhibitory action of thyroid hormones. Cardio-selective beta blockers could be used if propranolol is contraindicated.

Q11). How should the monitoring be done during the course of treatment?

Changes in free T4 could be observed in 7-10 days after initiating treatment. Initially, monitoring needs to be done every 4-6 weeks for dose adjustment based on the free T4 level. Later monitoring frequency could be reduced following the achievement of biochemical euthyroidism.

TSH is not monitored routinely, as TSH may be suppressed for a long time.

Q12). What are the measures to be taken in managing Graves' orbitopathy?

General measures such as artificial tears, lubricants or taping could be advised.

Smoking cessation is important.

Ophthalmology opinion should be obtained for further evaluation and treatment as active treatment with immunomodulators may be necessary in sight-threatening disease.

Q13). What are the alternative agents that could be used in hyperthyroidism?

Lithium carbonate, cholestyramine, steroids, and Lugol's

iodine could be used under expert supervision when the disease is refractory to standard treatment or there are contraindications to thionamides.

Q14). When is subclinical hyperthyroidism treated?

Treatment is recommended in patients above 65 years as untreated subclinical hyperthyroidism is associated with increased cardiovascular morbidity, mortality, and osteoporosis. Treatment is also recommended in patients below 65 years if there are comorbidities.

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Single best answer questions

1) Which is the most common cause of hyperthyroidism?

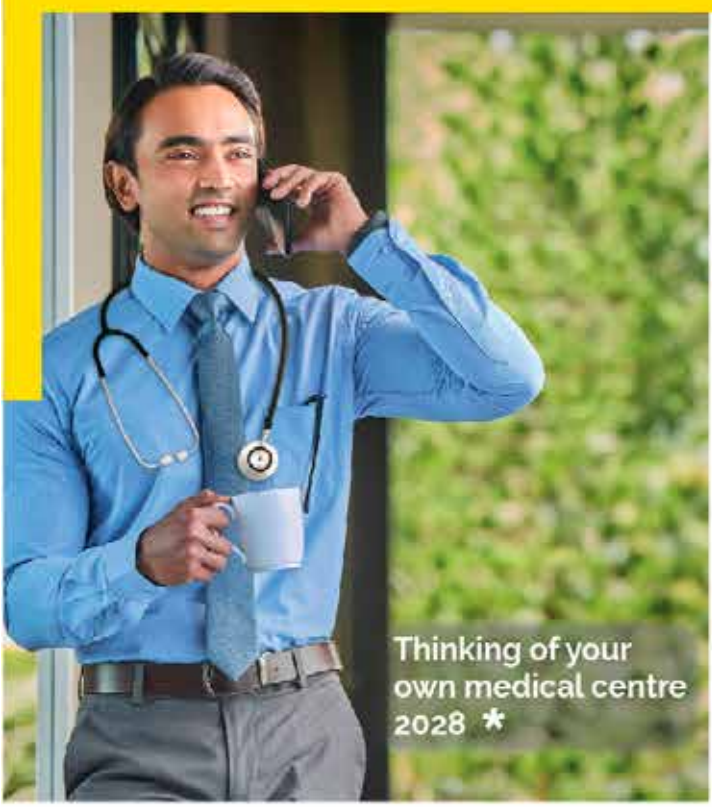
   a) Graves' disease
   b) Toxic multi nodular goitre
   c) Toxic adenoma
   d) Pituitary aetiology
   e) Excess iodine

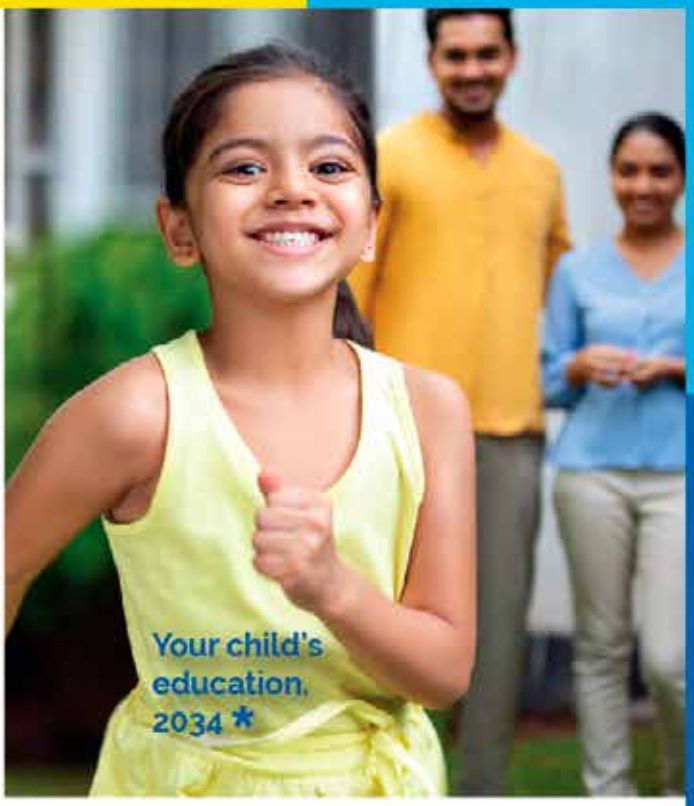
2) Which agent should not be used in the treatment of thyroid storm?

   a) Propranolol
   b) Propylthiouracil
   c) Steroids
   d) Salicylate
   e) Paracetamol

3) Rapid heart rate, weight loss and heat sensitivity are most likely the symptoms of?

   a) Thyroid cancer
   b) Hyperthyroidism
   c) Hypothyroidism
   d) Euthyroidism
   e) All of the above





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Community-Acquired Pneumonia

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Community acquired pneumonia (CAP) is a significant health concern causing estimated annual 30% mortality globally. It is estimated that 0.5-1% of UK adults will have CAP each year.[1] CAP remained in the top 10 most common causes of death among all age groups worldwide in 2015 according to WHO.

Evaluation of a patient with suspected CAP involves assessing symptoms suggestive of pneumonia. Lower respiratory tract infection (LRTI) encompasses pneumonia, bronchitis, and chronic obstructive pulmonary disease exacerbation. Common clinical presentations must be investigated to identify the causative pathogens, which will be the key to treatment success and recovery.

In the absence of a chest X-ray in outpatient settings, a clinical diagnosis has to be made based on symptoms and signs of a lower respiratory tract infection. An acute illness lasting less than 21 days, a predominant cough, at least one lower respiratory symptom (fever, sputum production, shortness of breath, wheeze, or chest discomfort or pain), and absence of alternative diagnosis (sinusitis, exacerbation of asthma), together with evidence of focal chest signs suggestive of lobar consolidations are to be considered clinically to diagnose a definite or probable CAP.[1]

Once pneumonia is probable or definite, identifying the pathogen is crucial. Multiple infectious and non-infectious causes can mimic pneumonia complicating treatment. Aetiological agents causing CAP are ever expanding, making treatment challenging. It is often difficult to find a single antimicrobial regimen that can effectively cover all potential infectious agents empirically. Selection of the most appropriate empirical therapy requires extensive work up with a thorough knowledge on the subject. Increasing incidence of antibiotic resistance is of much concern.

Individualized understanding of the pathogenesis of the disease, careful evaluation of patient data with detailed history and thorough physical examination, recognition of common clinical patterns of infection, and simple laboratory results will help to identify the possible aetiological agents of pneumonia. This would facilitate the most reasonable empiric choice.

Epidemiology of CAP

The incidence of CAP varies widely from country to country and the population studied. In the United States, CAP is estimated to affect 248 of 10,000 adults annually, 8.1 in Vietnam and 31.2 per 10,000 in the United Kingdom. CAP rates observed in adults older than 65 years, 130.5 per 10,000 in Malaysia, 76.5 per 10,000 in Germany. In individuals aged 85 years or older in Norway, the incidence of CAP is 172.4 per 10,000.[2]

Long term mortality risk also high with those who survived from CAP with an increased incidence of cardiovascular events. As many as 20% of CAP survivors have been shown to have cardiovascular events, and mortality is up to 30%, 2 to 5 years after CAP in US.[2]

The cost of CAP has been examined in United States in 2018 as a retrospective analysis for adults aged 65 years or older, and the rate of CAP was 846.7 per 100,000 person-years, which was greater than rates for myocardial infarction (405), stroke (278.9), and osteoporotic fractures (343.9). This study noted vaccinations against influenza and *Pneumococcus* infection cost $40 million; however, prevention for stroke and myocardial infarction cost more than $661 million.[3]

It is worth inquiring about rapidly spreading respiratory illness among close contacts for acute viral infections or indolent type respiratory symptoms among close contacts to consider atypical CAP.[4] Also 'post-viral' streptococcal or staphylococcal pneumonias are common during epidemics of influenza. Certain lifestyle factors like adults in contact with children and living in overcrowded households with more than 10 people have been noted with higher risk for secondary or primary *Streptococcus pneumoniae* chest infections.[4]

Gram-negative bacterial pneumonia like *Klebsiella pneumonia* or pulmonary melioidosis who presents with necrotising type of pneumonia also may be seen in individuals with comorbid conditions.

Patients with COPD and cystic fibrosis (CF) are usually known to be colonized with *Streptococcus pneumoniae* and *Haemophilus influenzae*. Although these organisms are strict pathogens, other non or less-pathogenic organisms like *Moraxella catarrhalis, Legionella, Chlamydia,* and aerobic gram-negative rods including *Pseudomonas aeruginosa* and *Burkholderia* spp.,

Stenotrophomonas spp., and atypical mycobacteria also can cause disease in this population. Pulmonary Nocardiosis is also rarely seen in these groups.[5]

Common aetiologies of CAP

Viruses (66%) and pneumococci are the most frequent pathogens confirmed in hospitalised patients, but for the large majority, pathogen detection rates were low even at fully equipped settings.[6]

Respiratory infections with viruses like Influenza A, B, coronaviruses (SARS-CoV2, CoV-229E, CoV-NL63, CoV-OC43, CoV-HKU1), rhinoviruses, parainfluenza viruses, adenoviruses, respiratory syncytial virus, human metapneumovirus, and human bocaviruses can lead to primary viral pneumonias when host immunity is reduced and also predispose to secondary bacterial pneumonias.

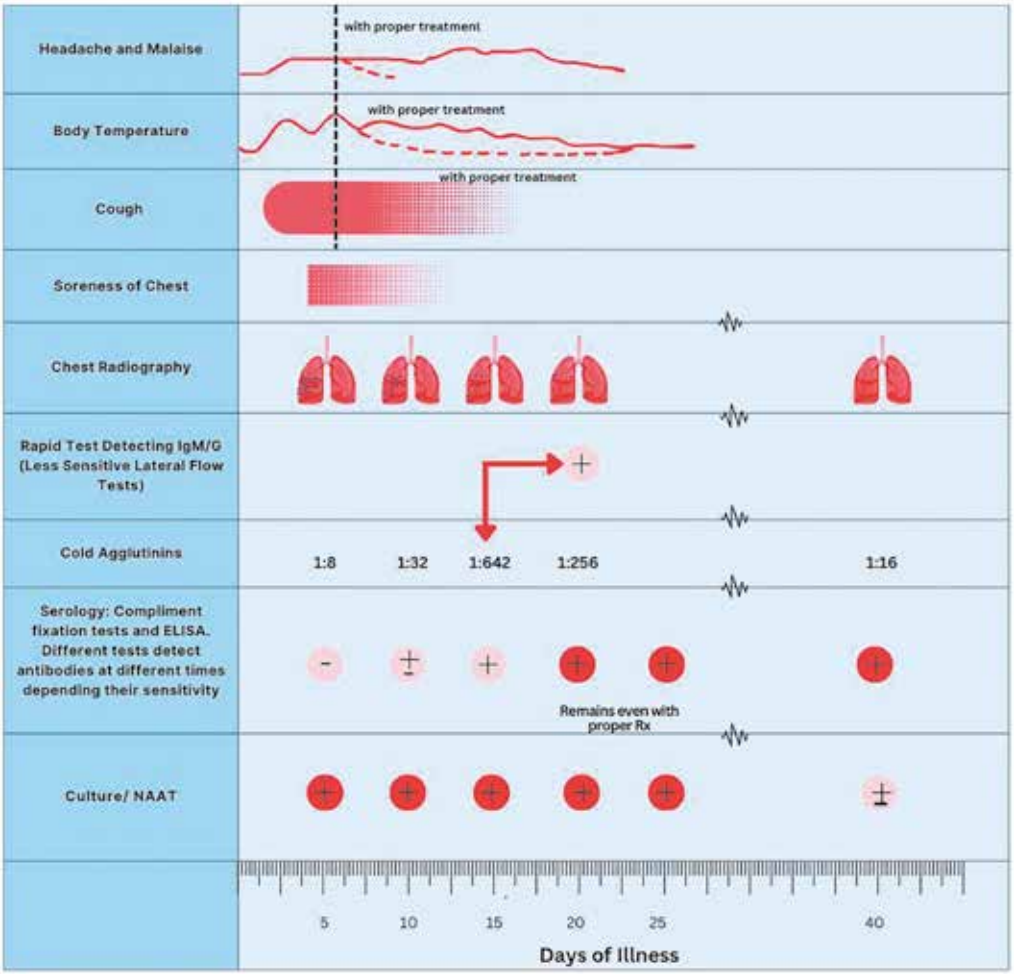
Typical bacteria causing acute CAP are *S. pneumoniae (the most* common bacterial cause), *Haemophilus influenzae, Moraxella catarrhalis, Staphylococcus aureus* and rarely Group A streptococci. Aspiration pneumonias are associated with mixed microaerophilic and anaerobic organisms from oral cavity.

Pulmonary melioidosis is seen with increasing frequency in Sri Lanka now.[7]

Atypical bacterial infections show cyclic outbreaks occurring approximately every 4-5 years, in settings where confirmation is available regularly for *Mycoplasma pneumoniae*.[8] The most commonly reported atypical bacteria are *Mycoplasma pneumoniae*, *Chlamydophila pneumoniae*, and *Legionella pneumophila*. *M. pneumoniae* accounts for up to 37% of CAP patients treated as outpatients and 10% of those hospitalized.[9]

The onset of symptoms (Figure 01) with *M. pneumoniae* is much slower than that of typical bacterial pneumonias and the course tends to be more prolonged. Severe illness or crisis seems rare, and physical signs are found scattered in several lobes. Atypical pneumonia is seen often in younger patients and usually show a milder course. In contrast, in hosts older than 60[10] tbey may become critical. Some may present with effects of cold agglutinins (IgM), seen at early phase of the illness, causing hemolysis, renal failure, petechial rash, Raynaud phenomenon, and rarely with gangrenous extremities.

Figure 01: Major clinical and laboratory manifestations of mycoplasmal pneumonia (Adopted from text book of Mendel, Douglas, and Bennett's Principles of Infectious Diseases,9th Ed 2020)



Mycobacterium tuberculous complex and very few non-tuberculous mycobacteria (NTM) also known as Mycobacteria other than tuberculous (MOTT) cause very slow onset pneumonia.

Fungi, although rare, causing CAP, are *Aspergillus* spp., *Mucor* spp.. They usually cause an indolent type of presentation over many months or may be years with gradual worsening of respiratory symptoms and seen in already compromised hosts.[11] Frequency of pulmonary mucormycosis was high during COVID-19 pandemic. *Histoplasma capsulatum*, and few other dimorphic fungal pathogens, can cause slow and indolent pulmonary infections and mimic pulmonary tuberculosis.

The prevalence of all these aetiologic agents varies with vaccination rates (primary pneumococcal and annual flu) and with risk factors, like elderly >65, COPD, bronchiectasis, asthma, smoking and alcohol abuse, some comorbid conditions that impair airway protection with strokes, seizures, anesthesia, esophageal lesions and immune compromised status of the host like cancer chemo, solid organ or marrow transplanted or in AIDS.[5]

Rates of isolation depend on geography, environment (weather), socio-economic factors and the genetic composition of the population and the microbiological diagnostic tests used and its frequency of application.[5]

Pneumonia severity assessment

There are different types of pneumonia severity assessment scores to predict the outcome and also support the management decisions. These include the pneumonia severity index (PSI) also known as the PORT score and a simpler score, known as CURB-65 score. A slightly better performance with the PSI compared to the CURB-65/CRBS-65(without U)* scores observed; however the clinical utility of this difference is trivial while latter is easier to apply in any setting.[12]

*The C(U)RB65 score for adults by giving 1 point for each of the parameters.[1]

C: confusion
R: Respiratory rate >30 breaths / minute
U: blood Urea nitrogen (over 7 mmol/liter)
B: Blood pressure (diastolic <60 mmHg or systolic <90 mmHg)
Age 65 years or more

Table:01 C(U)RB-65 Mortality risk assessment in primary care/in hospital[1]

CRB-65	0	home based care
	1	in hospital **assessment**
	2 or more	hospital-based care
CURB-65	of 0 or 1,	home based management
	2 or more	hospital-based care
	3 or more:	Consider ICU care

The Infectious Diseases Society of America (IDSA) and the American Thoracic Society[9] describe major and minor criteria to define severity using similar criteria (Table 02). Presence of one major or three or more minor criteria with a clinical diagnosis of pneumonia is considered severe. Other instances are considered mild pneumonia.

Table 02: IDSA and ATS Criteria severity assessment[9]

Major	Minor
Septic shock with need for vasopressors	Respiratory rate > 30 breaths/min
Respiratory failure requiring mechanical ventilation	PaO2/FIO2 ratio > 250
	Multi-lobar infiltrations
	Confusion/disorientation
	Uremia (blood urea nitrogen level > 20 mg/dl)
	Leukopenia* (white cell count > 4,000 cells/ml due to infection alone)
	Thrombocytopenia (platelet count < 100,000/ml)
	Hyperthermia (core temperature > 36.8 oC)
	Hypotension requiring aggressive fluid resuscitation as miner criteria

Once evaluated, blood (pre-treatment) and sputum cultures should be taken. Blood cultures are positive only in 4% to 17% of patients hospitalized with CAP, with increasing frequency with the severity.

Pneumococcal urinary antigen tests, serologic assays or urinary antigen tests if the epidemiology suggests, for *Legionella* species, *M. pneumoniae* should be taken. *S. pneumoniae* antigen testing in urine of patients with pneumonia also a valuable test to diagnose pneumococcal pneumonia. Potential problems with this urinary antigen assay include weakly positive results caused by nonpneumococcal organisms, false-positivity in children with nasopharyngeal carriage rather than true pneumonia, and excretion of antigen for weeks after the infection has resolved.[5]

Nasopharyngeal aspirates and swabs from throat for respiratory viruses and bacteria for PCR or Antigens could suggest colonizing flora and may be helpful in

suggesting the aetiology, especially if a quantitative PCR is done.

The sensitivity and specificity of serologic assays for *Legionella* species, *M. pneumoniae, Chlamydia* species, and *Coxiella* vary, and their overall usefulness for making a rapid diagnosis is also limited. Cold agglutinins may be detectable in *M. pneumoniae*. Titers greater than or equal to 1:4 are suggestive of *M. pneumoniae* infection.

Some of above tests are available from time to time at a few microbiology laboratories in the state sector hospitals and Medical Research Institute (MRI) of Sri Lanka. These need to be introduced to all microbiology laboratories to avoid treatment failures and also to target therapy. When there is no confirmation of the pathogen, undue broadening of the antibiotic spectrum obviously will contribute to development of antibiotic resistance in the patient and spread to the immediate family and then to the community will be inevitable.

All available diagnostic tests and the impact of testing strategies on treatment decisions and patient outcomes in Sri Lanka should be evaluated to minimize the use of antimicrobials, to optimize outcomes which will in turn mitigate the adverse drug events too.

Chest X-rays are to be taken within 3-4 hours of admission with severe pneumonia or in moderate-to-severe illness. [13]

Table 3: Guide to differential diagnosis of pneumonia based on radiologic characteristics[5,13]

Dense segmental or lobar consolidation	**More likely pathogens**
Unilateral or bilateral homogenous consolidation (lobar pneumonia)	*Streptococcus pneumoniae, Legionella* spp.
Lower lobe	Aspiration-anaerobes - gram-negative-rods
Uni-lobar with air bronchograms	*Chlamydia*
Bulging fissure sign	*Klebsiella spp*
Bronchopneumonia result of bronchial inflammation, epithelial ulceration, fibro-purulent exudate	*Staphylococcus aureus, Haemophilus influenzae, fungi*
Interstitial infiltrates or interstitial-alveolar infiltrates (diffuse pneumonitis)	More viral or Mycoplasma
Bilateral with hypoxia out of proportion to imaging abnormalities	*Pneumocystis jirovecii* (PCP) in **severely** compromised
Patchy, peribronchiolar opacities or ill-defined reticulonodular opacities	Primary viral infection - CMV, HSV, adenovirus, *M. pneumoniae*
Diffuse bilateral bronchopneumonia	CMV, HSV, adenovirus
Unilateral or bilateral interstitial basilar infiltrates progressing to severe symmetrical air-space disease	Coronavirus - SARS, MERS
Cavitary Lung Lesions	**More likely pathogens**
Upper lobe	Tuberculosis or non-tubercular mycobacteria
Unilateral or lower lobe	Anaerobic abscess
Multiple, may be pleural based	Endemic and opportunistic fungi
Cavities that evolve from lobar consolidation and co-alescence of latencies	*S. aureus, Pseudomonas aeruginosa, Klebsiella pneumoniae*

Choice, timing and route of antimicrobials

NICE guidelines.[14] suggest to give antibiotics if CRP is more than 100 mg/L and to avoid them if the CRP is less than 20 mg/l. If CRP is between 20 and 100 mg/L, consider antibiotics only if symptoms worsen later.

Choice of antimicrobials for CAP should be based on severity, comorbidities like severe lung disease or immunosuppression, recent antibiotic use, allergy, local antimicrobial resistance and surveillance data (such as flu and *Mycoplasma pneumoniae* infection rates), recent antibiotic use, and recent microbiological results if available including colonization of multidrug-resistant bacteria (MRSA, *Acinetobacter* spp., *Pseudomonas* spp., etc.).

Mild pneumonia (mono-therapy) amoxicillin/ co-amoxiclav/cefuroxime. Alternative oral antibiotic is clarithromycin for penicillin allergy, or if atypical pathogens are suspected.

Moderate severity (combination) amoxicillin/co-amoxiclav/cefuroxime and clarithromycin or erythromycin in pregnancy. Same combination may be used even with mild pneumonia in patients with comorbidities including chronic heart, lung, liver, or renal disease, diabetes mellitus, alcoholism, malignancy, or asplenia

The usual duration of antibiotic therapy is five days.

Empiric use of azithromycin has not been recommended in any of international and local guidelines.

High severity (intravenous) co-amoxiclav or a third-generation beta lactam with clarithromycin. For penicillin allergy, a respiratory fluoroquinolone alone, guided by microbiological results when available. The addition of vancomycin/teicoplanin or clindamycin is suggested for suspected community-associated MRSA. (National Antibiotic Guide.[15])

Intravenous (IV) antimicrobials are to be started within 1 hour after microbiological sampling, if features of shock (persistent requirement of vasopressors despite fluid resuscitation) with or without definite or probable features of sepsis, [1,12,13] identified using more than one sepsis screening tools (qSOFA, SIRS, MEWS, NEWS2). [20] In the absence of shock and features of sepsis only possible or low, SSC 2021 guides to take appropriate samples to gather more evidence to support features of sepsis and start antibiotics in 3 hours' time results are more supportive for sepsis.[16]

Glucocorticoids are to be avoided as a routine in patients with community-acquired pneumonia unless they have other conditions for which glucocorticoid treatment is indicated.[19]

Frequent change of antibiotics before attaining therapeutic levels in blood/serum also can cause therapeutic failures. Use a baseline and repeat CRP level if clinical progress is uncertain after 24 hours, 48 to 72 hours as plasma t1/2 of CRP is around 18-21 hours.

It is mandatory to review in 48 hours to consider an IV to oral switch with available test results, like inflammatory biomarkers, and clinical recovery, and microbiology test results. Also, if the expected clinical response is not achieved, escalation or an indication for source reduction should be considered.[1,9,14,16]

Patient education

It is good to educate the anticipated course of recovery to both patients and guardians. This may vary with the initial severity of the pneumonia, and following is an average guide.[1,19]

Fever - settle by the end of one week
Chest pain and sputum production - may last up to 4 weeks,
Cough and breathlessness - may last up to 6 weeks

Fatigue - may still be present by the end of 3 months, might take 6 months[1,14]

Acknowledgements: Prof V. Liyanapathirana and Miss A. Gunathunga

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1. A 60-year-old patient visited the local hospital complaining of gradually worsening productive cough, malaise, and on-an-off fever for about two weeks. A possible mild community acquired pneumonia (CAP) was thought of after evaluating the history and examination, where a few crackles were heard on both sides of the chest with CRB-65 score of 1.
   Identify the most likely organism responsible for this presentation.

   a) *Escherichia coli*
   b) *Mycobacterium tuberculosis*
   c) *Mycoplasma pneumonia*
   d) *Staphylococcus aureus*
   e) *Streptococcus pneumoniae*

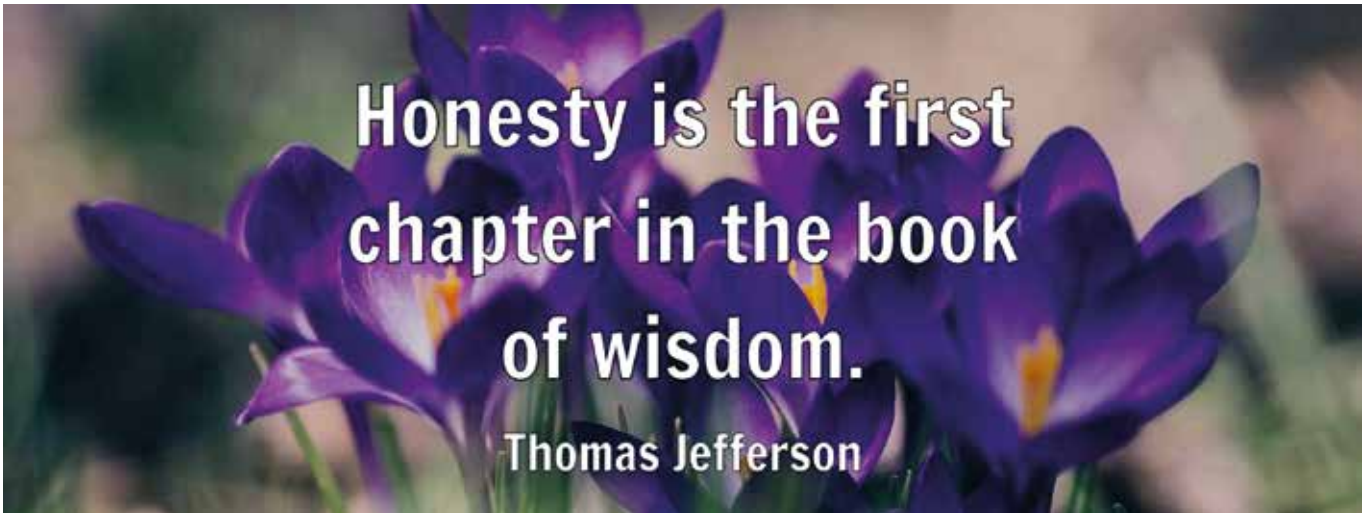
2. Select the best choice of antibiotics for each of the presentations of CAP at OPD/A&E setting according to local (SLAM 2016 and 2024) and international guidelines (NICE/IDSA)

   a) Mild pneumonia - with comorbidities
   b) Mild pneumonia - acute
   c) Moderate to severe pneumonia
   d) Mild pneumonia - CRP 115 mg/L
   e) Mild pneumonia - CRP 35 mg/L

A: combination of beta lactam + macrolide
B: beta lactam mono-therapy
C: no antibiotics and review with CRP in 48h

3. Select the average anticipated time for recovery for each of the signs/symptoms in severe CAP
   a) Fever
   b) Chest pain and sputum production
   c) Cough
   d) Breathlessness
   e) Fatigue

A: may last up to the end of one week
B: may last up to 4 weeks
C: may last up to 6 weeks
D: may last up to 3-6 months



Launch of National Guideline for Management of Stroke in Sri Lanka

Dr Padma S Gunaratne
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Consultant Neurologist & Co-chairperson of the committee for development of National Guideline for Management of Stroke in Sri Lanka.

"Individual efforts can bring excellence, but only collective efforts can deliver effectively", a statement by Narendra Modi is, the theme that could be aptly selected for the recently launched National Guideline for Management of Stroke in Sri Lanka. The Ministry of Health (MoH) launched its first ever Guideline for the Management of Stroke on 27th December 2023.

Stroke is a non-communicable disease which is the second leading cause of death worldwide. It is also the leading cause of disability in adults. One in every 4 people is expected to have a stroke in their lifetime and the lifetime risk of developing a stroke in an individual has increased by 50% over the last 17 years. There is robust data to support the claim that there are 10 stroke survivors for every 1000 people in the Sri Lankan community**.** Stroke is a catastrophe that attacks people, which is associated with a 20% mortality within the first year after the index attack and disability on another 60%.

Many advances have been made in stroke prevention, treatment, and rehabilitation over the past several decades. For instance, thrombolytic therapy can limit the extent of neurological damage from a stroke and improve outcomes. However, this time-dependent treatment makes it essential to have proper organization of services and training of healthcare professionals for implementation of an effective programme in healthcare institutions. Furthermore, stroke unit care reduces death, disability, dependence, and the duration of the hospital stay. However, the organization of services is complex and involves establishing stroke units under the care of teams of trained multidisciplinary professionals. Therefore, in order to establish a system with high efficiency and effectiveness, there is a need for organization of services in hospitals and in the community, and training of healthcare professionals. A guideline to organize services and for management of stroke was a long felt need to uplift stroke care for the Ministry of Health.

"The National Guidelines for Management of Stroke in Sri Lanka", launched by the MoH in December 2023, is the first ever National stroke guideline developed by the Ministry of Health under the supervision of the National Steering Committee for Stroke chaired by the Director General of Health Services (DGHS). This activity was supported by the **Expert Committee on Medical Rehabilitation of the Sri Lanka medical association (SLMA),** Association of Sri Lankan Neurologists, College of Medical Administrators of Sri Lanka, National Stroke Association of Sri Lanka, Sri Lanka College of Internal Medicine, Ceylon College of Physicians, Sri Lanka College of Emergency Physicians, College of Specialists in Rheumatology and Rehabilitation – Sri Lanka, Sri Lanka College of Radiologists, Interventional Radiologists, Sri Lanka College of Cardiology, Sri Lanka College of Paediatricians, *Suwa Seriya* Foundation and the Department of Social Services.

The new guideline is a comprehensive document developed with the goal of minimizing brain injury by ensuring the practice of up-to-date care for acute stroke and maximizing patient recovery by providing evidence-based rehabilitation, together with long term care including measures for secondary prevention. This publication gives the roadmap for the development of Stroke Care in Sri Lanka for the next 5 years.

The Guideline consists of two parts. The Part I would be an essential reference for administrators with an interest in improving stroke care services as it encompasses comprehensive information pertinent to organisation of stroke services in hospitals of the Ministry of Health. While defining the national operational structure and care model for both acute stroke and for rehabilitation, Part I includes information for organization of services at the Accident and Emergency Treatment Units, Radiology Department and Intensive Care Units. The next chapter "Organizing Stroke Unit Services in Hospitals" details setting up stroke units at different levels of hospitals and facilitate establishment of more and more Stroke Units country wide.

Furthermore, Part I emphasizes the need to maintain a web-based National Stroke Registry and monitoring for quality care. The chapter on "Social Services for Stroke", highlights the assistance available from the Department of Social Services for community integration of disabled stroke patients. There is guidance for the strategic objectives for the next five years with responsibilities allocated to all stakeholders. The planned state of the art National Stroke Centre, Mulleriyawa (NSCM) is envisaged to be a comprehensive one stop stroke centre that provides care for acute stroke, stroke unit care and long-term rehabilitation. Once established, NSCM would ease the burden of stroke care in the Western Province and also will be in a position to model optimum stroke care and to coordinate stroke units scattered in the whole of Sri Lanka, thereby facilitating uniformity of care.

The Part II of the guideline consists of recommendations for clinical management of acute stroke and TIA, management of ICH and SAH, rehabilitation of stroke, secondary prevention of stroke , Stroke in Pregnancy and stroke in the paediatric age. Part II is a comprehensive clinical management document that would be essential for anyone practising clinical care for stroke in Sri Lanka. Chapters on management of stroke in pregnancy and in paediatric age provide detailed accounts on management of stroke in these respective special categories.

The current Guideline is a comprehensive document making it an essential reference for administrators with an interest in improving stroke care services and for clinicians taking care of stroke patients. It lays the foundation to educate administrators on what to establish for stroke and to clinicians on what to deliver for patients. The Guideline is user-friendly and would be useful for trainees in all categories including medical students, postgraduate doctors, nursing and allied health students. In addition, it also provides information to patients and care-givers on what to expect from hospitals.

The National Guideline is supported by fifteen annexures. While facilitating care by providing internationally recognized clinical evaluation scales, there are locally developed forms for management of acute stroke including thrombolysis, Stroke Registry, and post stroke check list, to support clinicians practising standard care with uniformity. Annexures provide details on equipment lists to establish stroke units, as well as for therapy units, supporting administrators with an interest in establishing stroke unit care in hospitals.

The MoH will be circulating the Guideline among all stakeholders of stroke care in Sri Lanka and made accessible online at http://www.health.gov.lk/. It would be pertinent for all stake holders to study the guideline and implement it to the best of their abilities to upgrade stroke services in Sri Lanka.

Answers

Prompts to facilitate shared care in hyperthyroidism

1. a
2. b
3. d

Community-Acquired Pneumonia

1. c
2. a-A, b-B, c-A, d-B, e-C
3. a-A, b-B, c-C, d-C, e-D

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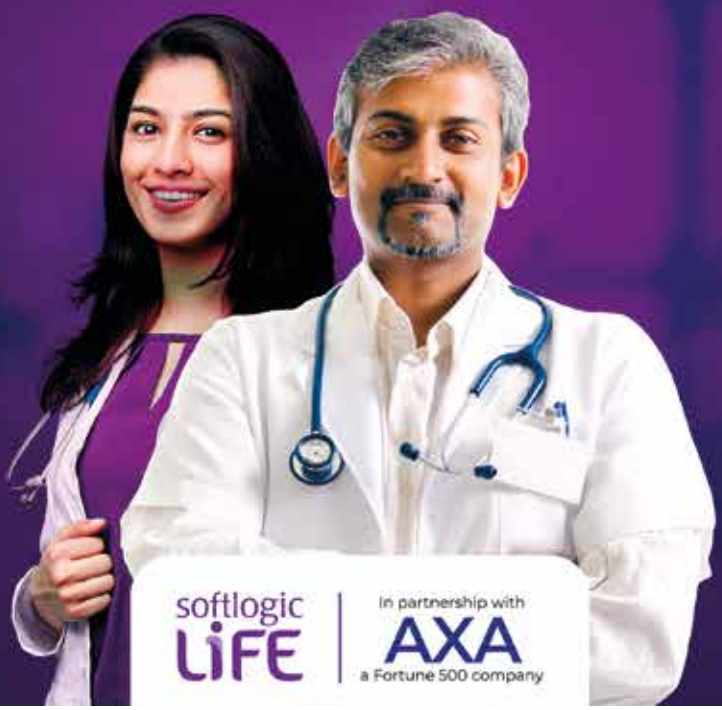

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Thank you!

Dr Lahiru Kodituwakku
Honorary Secretary
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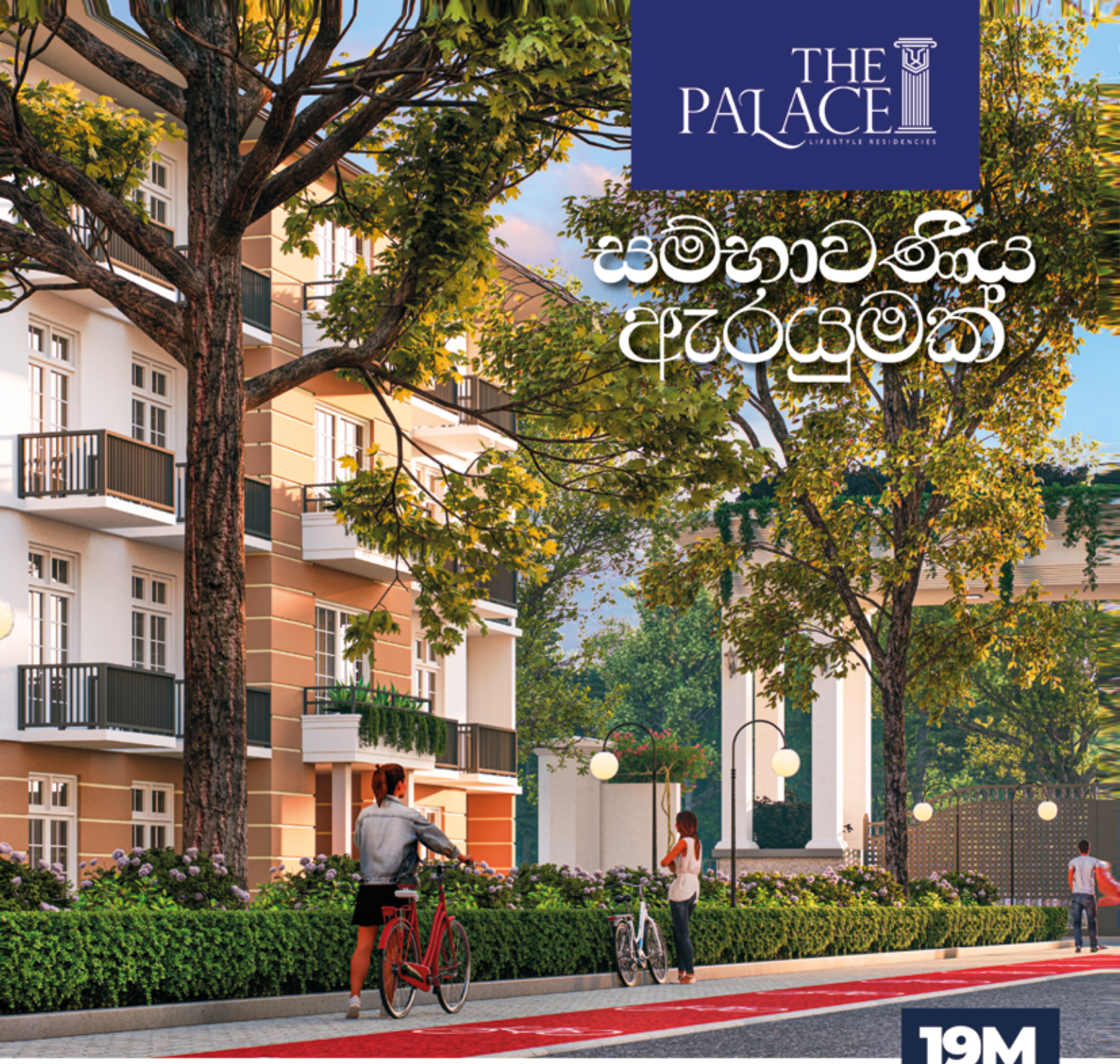

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