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Editorial

SRI LANKA IN CRISIS



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45 MINUTES



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SLMA President

Prof. Samath D. Dharmaratne

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President's Message

Dear SLMA Members,

'Bad things do happen: How we respond to them defines our character and the quality of our lives. We can choose to sit in perpetual sadness, immobilized by the gravity of our situation, or we can choose to rise from the pain and treasure the most precious gift we have - LIFE ITSELF' Walter Anderson

The Sri Lanka Medical Association, the premier medical body, have always addressed and has been involved in the preservation of health and health care in Sri Lanka since its inception in 1887.

We have addressed issues directly and have liaised and worked with other stakeholders, including the Ministry of Health. The immediate Past President of the SLMA, Dr. Padma Gunaratne and her Council, in a series of laudable efforts, continuously addressed, advised and influenced the government on the prevention and control of the COVID-19 pandemic last year.

Since taking over as the President this year (2022), I and the present Council of the SLMA have been watching, advising and getting involved in addressing issues related to health of the people of Sri Lanka, right up to the present time. Although many may argue that we, as a group of health professionals, can only voice our opinion and advocate on health related issues. However, it must be pointed out with the same degree of certainty that the ultimate result of all the hardships faced by the people



could in the end have a direct or indirect effect on the health and wellbeing of the people.

Today, the many social issues, shortage of medicines in government hospitals as well as the private sector, lack of fuel for vehicles, shortages of food and notably the non-availability of milk for our children, can impact significantly on the encouraging and positive health indicators maintained for many years in Sri Lanka.

Therefore, I and the Council of the SLMA, have released two media statements one on the shortage of medicines in healthcare sector and its impact on the health of the people on 7th April 2022 and on the Political and Economic crises faced by the country on 20th April 2022.

A letter was also forwarded to the Executive President Gotabaya Rajapaksa on 7th April 2022 highlighting our concerns on the medicine shortage and the need to prioritize in procuring medicines to prevent any unnecessary deaths.

We feel that the hardships faced by the people due to many shortages in essential goods have initiated the ongoing peaceful protests around the country and these can lead to the breakdown of the system and bring the country to a standstill in the not too distant future.

We, at the SLMA, have consistently advised the general public, the street protesters as well as the law enforcement authorities to abhor violence of any sort and keep all developments peaceful. Yet for all that, the sad occurrence of a major catastrophe that led to one death and many being injured in Rambukkana on 19th April 2022 brings into sharp focus the volatility of the situation and how quickly things can deteriorate.

Hopefully, we will all have the strength and resilience to rise up and overcome these crises facing our motherland in a satisfactory manner, sooner rather than later. My prayer for our country is that it would not be wishful thinking.

**Professor Samath D. Dharmaratne
President - SLMA**

SRI LANKA IN CRISIS

Sri Lanka is currently facing the worst economic and political disaster since independence, that has brought the country into a state of near-bankruptcy. The peaceful, non-violent protests of the people, with no direct backing by political parties, just entered its 14th day at the time of writing. The witnessing of the first death of a protester at Rambukkana, shot by the police on 19th April, has made the situation take a turn towards the worst of scenarios.

According to the Economist, Sri Lanka, with less than 3.2% of GDP investment in health, has health indices comparable to more developed countries in the region such as Thailand and Malaysia. The British Medical Journal (BMJ), in its cover story some years back, indicated that South Asia should replicate the model of Sri Lanka.

So, what has happened to our country? How did we end up in this pernicious and precarious situation?

The root causes are mismanagement, massive corruption, and non-accountability at all levels of the political hierarchy led by the people's elected representatives from the Executive President to the parliamentary representatives over the past few decades. What precipitated the crisis so fast may well be the COVID-19 pandemic since 2019. The Easter bombings made the matters worse.

The increase in prices of essential food items, medicines, fuel, gas and the long power cuts, caused severe hardships across all socio-economic strata of the country, having a virulent effect especially on the low and middle income groups. The situation has made the

ordinary people to be discontented and angry, resulting in general social instability with increasing numbers of peaceful mass protests, starting from Galle Face and now spreading to several major cities across the country.

We believe that the situation is deteriorating very rapidly and in an uncontrolled manner. Unless urgent measures are taken to stabilize the situation and address the legitimate requests and concerns of the people, we are sprinting ever so fast towards widespread civil unrest, bankruptcy, and eventually placing democratic governance at an unprecedented risk level.

As a profession our main responsibility lies with safeguarding health and human lives. In that specific context, it is now known that there may be a catastrophic shortage of even some essential drugs over the next three months as the country had no foreign exchange to procure these in January 2022.

Even in this chaotic and dangerous situation we have seen some indicators of the incredibly good nature of our people. They have cast aside differences in their ethnicity, religion, social status, and party politics and rallied for a common cause. The people have united as Sri Lankans, showing the leaders of political parties that there will be no divisions among people in the context of the current despicable scenario, brought about by our inept politicians. It's good to see doctors, joining the people's peaceful protest in Galle Face, and even holding demonstrations in front of government hospitals.

As such, we earnestly call upon all political leaders to ensure that the state security personnel

show maximum restraint, avoid unnecessary provocations and not resort to ill-conceived force against these peaceful and legitimate protesters who are Sri Lankan citizens enduring the worst period in their lifetimes. We appeal to all political leaders to listen to the voice of the people and take urgent measures to get this country out of the crisis. They are duty-bound to take urgent and serious note of the expressed will of the populace of this land.

We appeal to our Sri Lankan brothers and sisters to ensure that the peaceful protests are carried out without resorting to any kind of violence or provocation even when continued under extremely stressful conditions or in response to confrontational action by others.

In this edition of the newsletter, we have included three feature articles addressing the ongoing crisis, how it has affected health of a nation, and what could be done to minimize the impact on health. We do hope that all doctors who read these may help to propagate the relevant messages at their level of care in the community.

This is the least we can hope to do on behalf of our people. The rest will depend on each individual doctor in whatever action we can take at the grassroot level in solidarity with our people.

**Professor Kumara Mendis
Dr Sumithra Tissera
Co-Editors of the Newsletter**

Disclaimer: This cover story reflects the considered opinions of the Co-Editors and may not necessarily be the views of the President, Council and the general membership of the Sri Lanka Medical Association (SLMA).

Brief description of activities (16th March - 15th April)

19th March

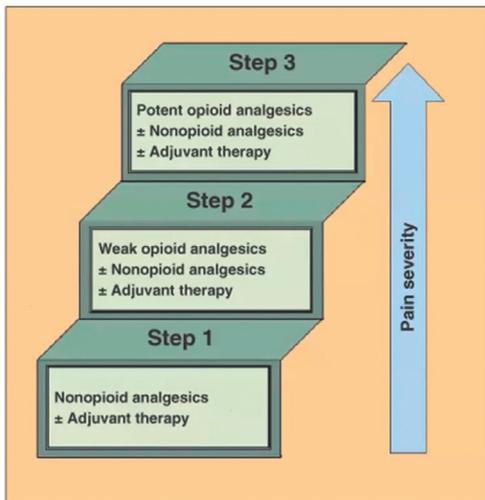


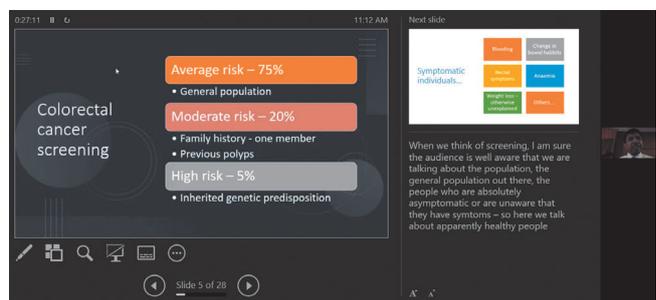
Figure 1: World Health Organization Analgesic Step Ladder—Derived from a consensus guideline published in 1982, the three-step approach to analgesic therapy for cancer pain was published in its final form in 1986.



in the Perioperative Setting’.

The following resource persons did case presentations; Dr Ramani Pallemulla, Consultant Obstetric Anaesthetist, CSHW on ‘Obstetrics’ and Dr Unani Yasanthika, Senior Registrar in Anaesthesiology on ‘Trauma’.

Dr Nilmini Wijesuriya, Consultant Anaesthetist, CNTH, Ragama delivered a lecture on the said topic.



The SLMA Saturday Talk on ‘Palliative Care in Clinical Practice’ was done by Dr Dilhara N Samarweera, Consultant Physician, Colombo South Teaching Hospital.

A joint regional meeting was held with the Asiri Hospital Group.

The welcome addresses were delivered by Dr Manjula Karunaratne, CEO Asiri Hospital Group and Professor Samath Dharmaratne, President, SLMA.

The following lectures were delivered by the respective resource persons at the meeting;

‘Hypertension: from diagnosis to management’ by Dr Chamara Rathnayake, Consultant Cardiologist, ‘Lifestyle Medicine: the New Specialty’ by Dr Nilwala Jayasinghe, ‘From Colorectal Polyps to cancer Surveillance, Screening and Endoscopic Treatment’ by Dr Isurujith Liyanage, Consultant Gastrointestinal Physician, ‘Professional Ethics’ by Emeritus Professor Anoja Fernando, Member UNESCO International Bioethics Committee and ‘Pandemic Preparedness and Response: Learnings from COVID-19’ by Dr Vinya Ariyaratne, Consultant Community Physician/ President Elect, SLMA.

Vote of thanks was delivered by Dr Champika Bogahwatte, Medical Director, Asiri Surgical Hospital.

22nd March



PATIENT BLOOD MANAGEMENT

- International initiative in best practice for transfusion medicine.
- It is a multidisciplinary, evidence-based approach to optimising the care of patients who might need a blood transfusion.
- Patient-centred approach: ensures that the patient receives the best treatment while avoiding inappropriate use of blood and components.
- Everyone involved in blood transfusion needs to take responsibility for its appropriate use.



OPTIMISATION & PREPARATION FOR ANTICIPATED MAJOR POST PARTUM HAEMORRHAGE

- Double dose iron therapy
- Two units of blood already transfused in the ward for Hb 8 g/dl
- Seen by RP - inhalers for BA
- Planned date for operative delivery - 1 wk later -at POA 37 wks
- Aspiration prophylaxis & fasting for 6 h
- Reserved blood 6 u, cryoprecipitate 20 u, FFP 4 U, Platelets one adult dose, Informed BB & transfusion specialist
- Reserved a bed in ICU
- Informed- husband & family Possible hysterectomy, massive bleeding & blood transfusions, post op ICU care
- Agreed plan between obstetrician & anaesthetist: go for uterine preserving surgery under combined spinal epidural anaesthesia with IABP monitoring



The monthly clinical meeting was conducted with the collaboration of the College of Anaesthesiologists & Intensivists of Sri Lanka on ‘Patient Blood Management

24th March

A seminar was organized collaboratively by SLMA and the National Programme for Tuberculosis and Chest Disease (NPTCCD) to mark the World Tuberculosis (TB) Day at the SLMA Auditorium.



Dr. Surantha Perera - Vice President, SLMA and Dr. Hematha Herath, Director, NPTCCD, while making introductory remarks, welcomed the resource persons and the participants.

Messages by HE the President and the Hon. Prime Minister were read out.

Dr SM Arnold, Deputy Director General PHS1 and Dr Lakshmi Somathunga, Additional Secretary, Public Health also addressed the gathering and explained the importance of eradication of TB and the importance of the World TB Day.

This was followed by awarding prizes to winners of the Islandwide School Art Competition 2022.



Three invited lectures were delivered as follows;

'The Impact of COVID-19 pandemic and investing for TB Epidemiological aspects' by Dr Onali Rajapakshe, Consultant Community Physician, NPTCCD, 'The

impact of COVID pandemic on Tuberculosis: The way forward ...' Dr Neranjan Dissanayake, Consultant Respiratory Physician, GH Rathnapura and 'New advances in TB diagnosis' by Dr Chintha Karunasekara, Consultant Microbiologist, NHRD.



A person who had recovered from TB Meningitis spoke of his experience of the disease, treatment and recovery.

26th March

The SLMA Saturday Talk on 'Multiple Myeloma: Diagnosis, Complications and Management' was done by Dr Devinda Jayathilake, Consultant Haemato - Oncologist, National Cancer Institute, Maharagama.

2nd April (Morning)

The Scientific conference titled 'Best Patient Care through Correct Communication' was held at the SLMA Auditorium. This was organized by the SLMA Expert Committee on Communication.

The keynote address was delivered by Professor Saroj Jayasinghe on 'The crucial importance of Communication in Healthcare'.

Plenary Session one on 'In-person consultation' was delivered by Dr. S Krishnapradeep, Senior Lecturer, Department of Paediatrics, University of Peradeniya, Dr. Nihal Weerasooriya, PDHS, MoH, Central Province, Ms. Anuradha Rathnayake, Lecturer in Nursing, Faculty of Allied Health Sciences, University of Peradeniya and Ms. Ramya Ekanayake, PG Trainee, FoM, University of Peradeniya.

Plenary Session 2 on 'Electronic Consultation' was delivered by Dr. MR Haniffa, Senior Lecturer in Family Medicine, University of Colombo, Dr. S Amali C Dalpatadu, Senior Lecturer, Department of Paediatrics, KDU and Dr. Kanthi Hettigoda, Clinical Psychologist, University Hospital, KDU.

Plenary Session 3 on 'Breaking Sensitive News' was delivered by Dr. S Amali C Dalpatadu, Senior

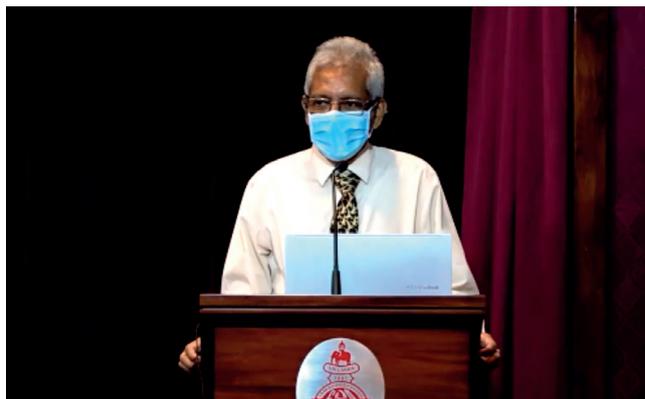
Lecturer, Department of Paediatrics, KDU, Professor R Mudiyanse, Professor in Paediatrics, Department of Paediatrics, University of Peradeniya and Ms. Anuradha Rathnayake, Lecturer in Nursing, Faculty of Allied Health Sciences, University of Peradeniya.

Plenary Session on 'Dealing with aggressive relatives' was delivered by Dr. Sajith Edirisinghe, Senior Lecturer, Department of Anatomy, University of Sri Jayawardenapura, Professor R Mudiyanse, Professor in Paediatrics, Department of Paediatrics, University of Peradeniya, Dr. S Krishnapradeep, Senior Lecturer, Department of Paediatrics, University of Peradeniya and Ms. Ramya Ekanayake, PG Trainee, FoM, University of Peradeniya.

Awards were presented to winners & runners-up of the Medical/ Allied Health Science narrative competition.

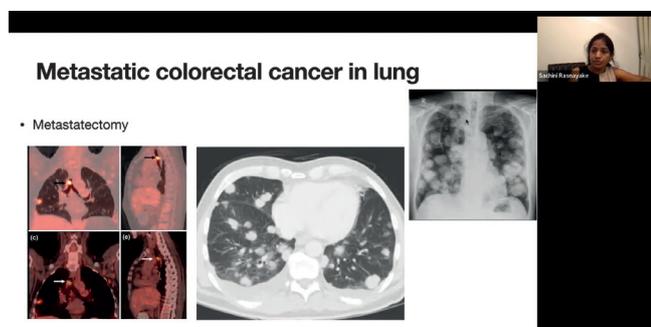
The sessions concluded with a panel discussion on 'SLMA Doc Call 247: Experience gained and lessons learnt on Healthcare Communication in Sri Lanka'. The resource persons were Professor Indika Karunathilake, Professor in Medical Education, Faculty of Medicine, University of Colombo, Dr. MK Ragunathan, Consultant Physician, Dr. Kalyani Guruge, Consultant Paediatrician and Dr. Sajith Edirisinghe, Senior Lecturer, Department of Anatomy, University of Sri Jayawardenapura.

'Food Security' Dr. Vinya Ariyaratne - President Elect SLMA & President Sarvodaya Movement.



The session was moderated by Dr. Renuka Jayatissa - Head of Nutrition Department Medical Research Institute, Ministry of Health of Sri Lanka.

2nd April (Evening)



The SLMA Saturday Talk on 'The Multidisciplinary Management of Colorectal Cancer' was done by Dr Sachini Rasanayake, Senior Lecturer, Department of Clinical Sciences, Faculty of Medicine, KDU.

5th April (Evening)

The SLMA Expert Committee on Medical Education organized a seminar on 'Landscape of Medical Education in Sri Lanka'.

The following persons addressed the gathering;

Dr. Palitha Abeykoon – Head, Accreditation Unit, SLMC, Professor Surangi Yasawardena, Former Dean, Faculty of Medical Sciences, University of Sri Jayawardenapura, Professor Indika Karunathilake – Chairperson, SLMA Expert Committee on Medical Education and Dr. Sajith Edirisinghe – Senior Lecturer, Faculty of Medical Sciences, University of Sri Jayawardenapura.

5th April (Morning)

The SLMA Expert Committee on Non Communicable Disease (NCD) organized a seminar on 'Food Safety & Food Security in Power Outages'.

The following lectures were done by the respective resource persons;

'Food Safety' by Dr. Thilak Siriwardhana – Deputy Director-General and Director of Environmental Health, Occupational Health and Food Safety and





A webinar was organized to commemorate the World Health Day 2022. The theme for the year was 'World Health Day: Our Planet, Our Health'.



The session was moderated by Dr. Rizka Ihsan, Convener - SLMA Expert Committee on Medical Education.

The following books were also launched during the seminar – Journey of the Healers (Past, Present & Future of Medical Education in Sri Lanka) and Anatomy – Upper Limb (A study companion for medical students).

7th April

A letter was sent to President, HE Gotabaya Rajapaksha, on the Health Sector Issues faced by the Hospitals and its impact on the health of the people in the country.

This was signed by the President of SLMA and Presidents of other Colleges/ Associations.

The letter was translated to Sinhala and Tamil and then released as a press statement.

There were five interesting topics covered by experts in the field of health. The topics and resource persons are given below;

'Global Health and Global Health Security' - Prof. Samath Dharmaratne, President SLMA & Chair professor of Community Medicine, Peradeniya, 'Climate Change and Health: A Global Overview' - Dr. Elena Prats Villalobos – WHO Head Quarters, 'Climate Change & Health, Regional Issues in Planetary Health' - Dr. Alaka Singh, WHO Country Representative, Sri Lanka, 'Planetary Health: Public Health Perspective' - Dr. Vinya Ariyaratne, President Elect SLMA & President Sarvodaya Movement and 'Planetary Health: A Role for the SLMA' - Prof. Saroj Jayasinghe, Emeritus Professor of medicine, Colombo.

The session was chaired by Dr. Palitha Abeykoon, Past President SLMA.

9th April (Morning)

A media seminar was conducted by the SLMA to educate the public on the issues faced in the healthcare sector due to the ongoing economic crisis in Sri Lanka.

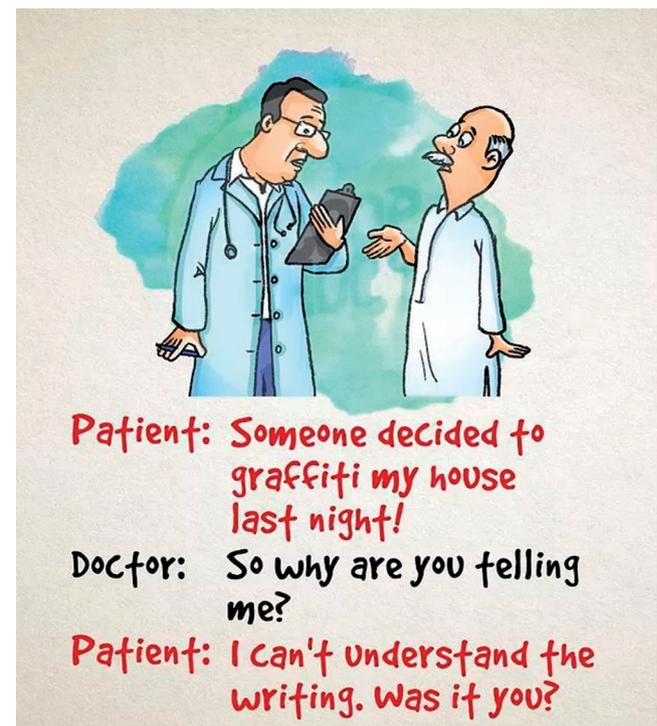
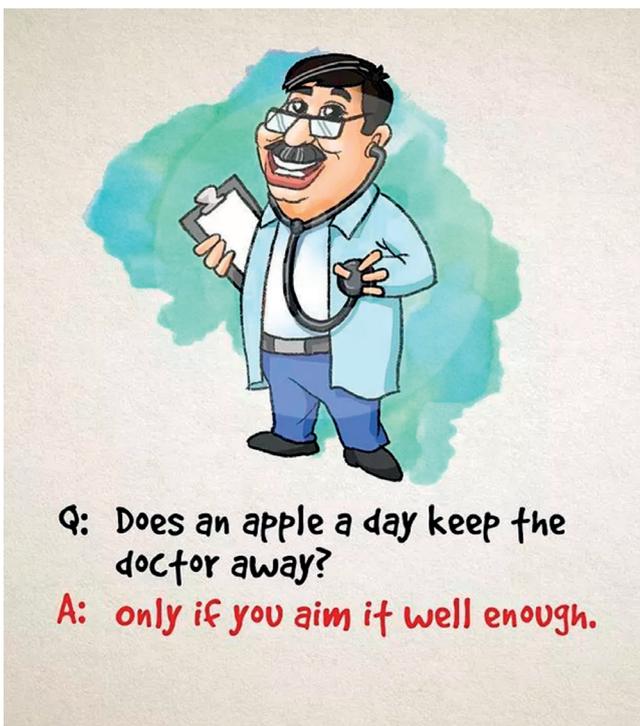
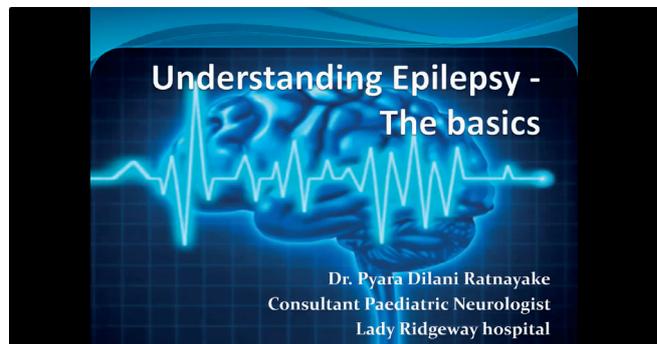


The resource persons at the seminar were; Professor Samath Dharmaratne, President, SLMA, Dr. Surantha Perera, Vice President, SLMA and Professor Ishan de Zoysa, Secretary, SLMA.



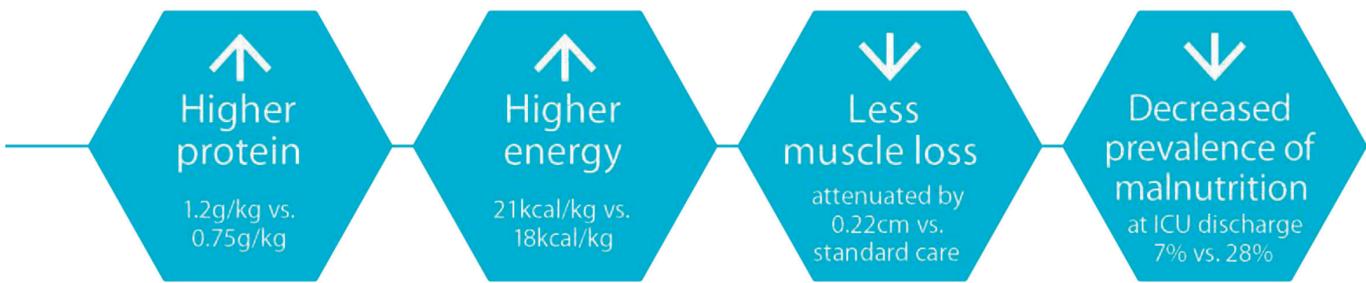
9th April (Evening)

The SLMA Saturday Talk on 'Childhood Epilepsy' was done by Dr. Pyara Ratnayake, Consultant Paediatric Neurologist.

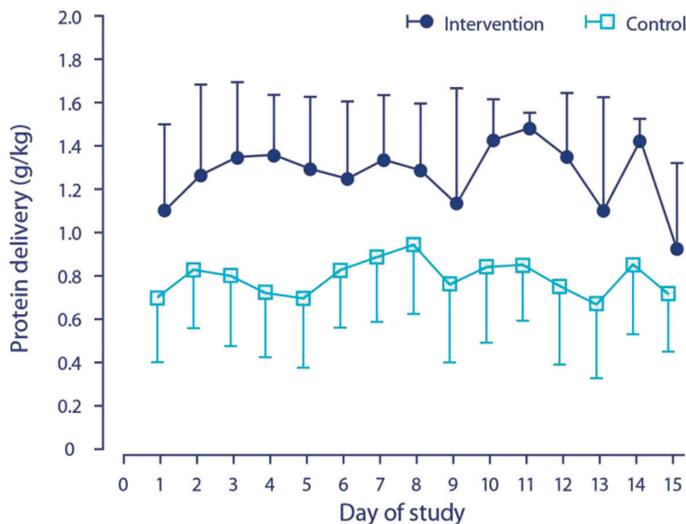


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References:

1. Fetterplace et al. JPEN 2018;00:1-11.

2. Singer et al. 2019. ESPEN guideline on clinical nutrition in the intensive care unit. Clinical Nutrition 2019 (48-79).



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The Crisis in Healthcare; The Clinician's Role in its Mitigation

Dr. Sarath Gamini De Silva

MD, FRCP

Senior Consultant Physician

Sri Lanka managed to survive the unprecedented challenges posed by the COVID 19 pandemic. With the dedicated services of the healthcare personnel and appropriate actions including vaccination, although somewhat delayed in their implementation by the authorities, there appears to be an end in sight of the two year ordeal. It has become a matter of vital importance to ensure that complacency does not set in on the part of the populace on health measures to keep the spread of the epidemic under control. The worrying possibility of new variants of the virus appearing is ever present. The waning of interest in obtaining a booster dose of the vaccine is a matter of concern. At the time of writing only about 70% of the eligible people have received the booster dose, although the vaccines are freely available. A significant number of people with comorbidities hitherto managed on medication have unfortunately succumbed to the illness.

The healthcare services have now plunged into a second crisis that appears to be of almost insurmountable proportions. The country depends almost entirely on imported medicine and other material for its healthcare services. The acute shortage of foreign exchange the country is facing has resulted in an inability to obtain all these essential items to maintain services. It is imperative that the clinicians have a vital role to play in ensuring that the basic services are maintained economising the meager supplies of the material

available.

All citizens are facing severe economic pressures. Due to lack of fuel movement of people is restricted severely curtailing economic activity. Prices of essentials in short supply like food, medicine, fuel and transport have skyrocketed. People spend hours in never ending queues to obtain these essentials in short supply. As a result very soon there is bound to be an epidemic of malnutrition especially among children and the elderly. When the purchasing power of the people decreases, it will be the procurement of medication that is likely to be sacrificed first, further aggravated by the nonavailability of essential medicines. The medical profession has a vital role to play to ensure that the people do not suffer as a result.

The prescription of drugs has to be curtailed to the bare minimum. During normal times it has become common practice for doctors to prescribe many drugs that are not essential for the treatment of various diseases. The perusal of many prescriptions shows a plethora of vitamins, micronutrients, fish liver oils, gastric acid lowering medications and pain killers which in many cases can be done without. Highly priced drugs like Coenzyme Q, gabapentin, glucosamine, some multivitamins, nutraceuticals and many others are known to serve little useful purpose therapeutically. Drugs to relieve symptoms are being prescribed indefinitely long after the symptoms have subsided. These account for a significant proportion of the cost of drugs for a patient, especially those on multiple medications for chronic illnesses. This will add to an

ongoing economic burden to the patient, not to mention the cost to the country to import them. The patient may compromise by taking a reduced dose, less frequent dosing than recommended, not taking some of the more expensive drugs or taking them over a shorter period of time than what is prescribed. As a result the control of non communicable diseases like hypertension, diabetes and ischaemic heart disease will suffer with inevitable adverse long term consequences. During the pandemic many medications of unproven benefit for prevention claimed to improve immunity were prescribed to several members of the affected families at high cost. These are unbearable financial burdens to families whose income is drastically reduced due to the ongoing crisis.

Almost all drugs are available in multiple brands at widely varying prices, which have recently gone up by as much as 30%. It is unfortunate that many pharmacies tend to stock only the more expensive brands which bring them a wider margin of profit. In most instances there are no quality control data to show that a more expensive brand is more effective than an inexpensive one. Low cost, yet effective generic products are available that could easily replace the more expensive original brands. The simple answer is to cut down the non-essential drugs the clinicians are used to prescribing as a habit over the years. Enormous costs to the government for importing drugs too could be curtailed that way.

Unnecessary investigations and hospital admissions too should be curtailed. These lead to congestion in the free services provided at

the state healthcare services and a great cost to the government in the state sector and to the patient in the private sector. Urine cultures are often requested in the absence of urinary symptoms and when the urine FR is normal. Antigen tests for COVID or Dengue and the antibody tests are often done too late or too early in the course of an illness when they are bound to be negative anyway. Liver and renal profiles are requested when only some individual tests suffice. Likewise various costly serological tests for suspected thyroid and other endocrine diseases are indicated only in a very few patients. In many cases either free T4 or TSH will suffice instead of a full thyroid profile of T3, T4 and TSH. Costly vitamin B 12 or vitamin D levels have become so routine with no specific indications. Expensive Troponin levels are often done in young people complaining of chest pain which is obviously of musculo-skeletal origin with no suggestion of heart disease. Endoscopies for the slightest complaint of abdominal pain, CT or MRI scans for the slightest headache or other neurological symptoms with no sinister signs are commonplace. These procedures and investigations should not be a convenient substitute for a detailed history and physical examination, notwithstanding the fact that many patients feel happy and relieved to be declared all normal after interventions which were not indicated in the first place.

The doctors who have invested in hospitals and laboratory services, are bound to be guilty in this respect due to their conflict of

interest. I am personally aware that doctors employed by service providers are under compulsion to request as many investigations as possible. Reliable rumours, yet unproven, about kickbacks being offered to prescribers by the service providers for such practice bring the profession to disrepute.

Healthcare is perhaps the only industry where the "salesman" (doctor) decides what the "customer" (patient) should buy. Hence there is a heavy moral responsibility on the doctor to see that the patient is not exploited in any way.

The present trend of the patients requesting various investigations and drugs purely on information obtained from the internet or just hearsay should not be a reason for qualified doctors to feel under obligation to prescribe them. It is the doctor who should take the ultimate responsibility for his prescription. **It should be borne in mind that the cost of unnecessary drugs prescribed or superfluous investigations requested could be the cost of a full meal of an individual or even meals for an entire family for a week or more, and a significant proportion of a person's income.**

The patients on long term treatment who are well controlled may be seen less frequently than now at clinics. At the discretion of the clinician the interval between follow up visits may be lengthened. The patients should be encouraged to attend clinics and hospitals nearer their homes rather than travelling long distances to "bigger" centers. However, it should be ensured

that the compliance of the patient does not suffer as a result. These measures would cut the cost of travelling and related expenses.

The simple message is that **the practice of so-called evidence based rational medicine should be tempered with consideration of the economic cost to the patient.** Otherwise the resultant non compliance of the patient will negate the very purpose one is trying to achieve.

Ironically, all the above recommendations should have been practiced throughout by clinicians even at normal times.

It has now become a matter of urgency to survive the current crisis, which is likely to last a considerable length of time in the foreseeable future. This situation should be an added impetus for the Medical Associations and Colleges to intensify the efforts to educate their members on these matters. They should take steps to prepare updated **lists of essential medicines** and other healthcare products to be made available by the authorities so that wastage of public funds can be curtailed. It is imperative that policy planners take urgent steps to start manufacturing drugs and other materials locally wherever feasible. Continued dependence on imports is a recipe for future crises.

Thus the current crisis could be the opening of a new era where the clinicians start practicing rational medicine and the authorities make only the essentials available minimising the economic burden to the country in providing free healthcare.



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Current National Crisis and Public Health

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Introduction

There is no argument that our nation is facing an unprecedented crisis. There is rising cost of living, shortages and skyrocketing of prices of essential food items, fuel shortages etc. This is causing severe hardships across all socio-economic classes but with disproportionate and adverse impact on the low-income, vulnerable and marginalized groups. There is widespread public discontent, anger and resulting social instability with mass protests. We were, as a nation, just coming out of the devastating effects of COVID-19 Pandemic and we are now confronted with this multidimensional crisis.

What are the public health implications of these developments and what can be our response from the medical community?

To assess the current and potential future public health impact of the present economic crisis, let me start with the public health impact of COVID-19 as we are still not out of the woods as yet, from the pandemic.

It has been 2 years since the World Health Organization (WHO) declared the COVID-19 outbreak as a Public Health Emergency of International Concern on 30 January 2020, and as a pandemic on 11th March 2020. In Sri Lanka, the pandemic claimed over 16,000 lives with over 660,000 persons being infected. There was a devastating impact on livelihoods

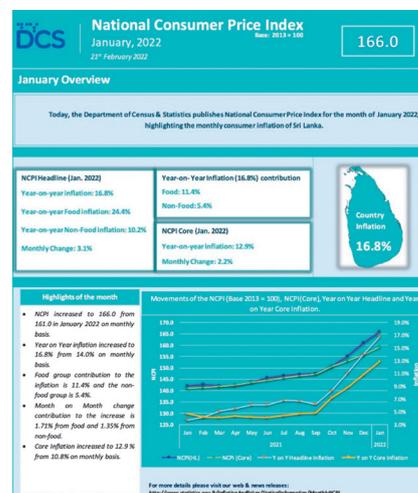
of people and the national economy. The world acclaimed the Public Health System of Sri Lanka that was put to test yet again, and seemingly responded effectively despite many a challenge. The credit should go to all categories of health workers and security personnel. Yet for all that, at the same time, the COVID-19 Pandemic and its response, brought to stark highlight, the inequities that existed in our society and has left a legacy to deal with when we are forced to now address the economic crisis.

Context

Even being a lower middle-income country, Sri Lanka in the recent past had set benchmarks in the region for its health and social indices. However, due to many contributing factors such as poor governance, fiscal and economic affairs, heightening geopolitics in the region, our Motherland is currently experiencing a downward spiral, bringing forth negative outcomes severely affecting multiple dimensions of social protection and welfare. The pandemic has already highlighted gaps in the current Social Protection and Welfare Systems, thereby bringing about fresh challenges.

Currently there is a mounting household food insecurity crisis amongst the low-income and vulnerable communities (due to an unplanned and ill-conceived shift to a fully organic agriculture policy and indirectly due to the present dollar crisis), amidst a deepening economic crisis resulting high rates of inflation (16.8% NCPI, 2022 Feb 22)¹, and high cost of living. The prices of essential supplies, medicines and other basic requirements fluctuate (mostly by

increasing) almost on a day-to-day basis. The economic downturn is posing unprecedented severe challenges at both micro and macro-economic spheres trickling down to the socio-economic and political life of the population. The effects are heavily felt by the most marginalised and disadvantaged, non-affluent populations. Rising inflation has affected philanthropic endeavours as well.



A 2020 report of the Ministry of Finance indicates that 500,000 people were pushed into poverty in 2020². A World Bank Report published in 2021³ observes that, while poverty was relatively low in Sri Lanka prior to the pandemic, pre-existing vulnerabilities were high, partly owing to high levels of informality. Many workers do not have access to employment protection or other job-related social protection benefits, making them vulnerable during times of economic crisis. According to the World Bank report, simulation-based results suggest that the crisis increased the international US\$ 3.20 poverty rate from 9.2 percent in 2019 to 11.7 percent in 2020; this change translating into over 500,000 new poor people.

By 2022 we could only project that this will increase due to the declining economic situation in the island. Like in most places globally, Sri Lanka is equally experiencing an emergence of the 'new poor'. Lack of social protection/welfare coverage when they lost their jobs or sources of income especially due to the negative effects of the pandemic, is making things difficult for people and communities living in disadvantaged / vulnerable populations.

Typical self-reliance systems have been affected remarkably, resulting in people-to-people charity drives declining and typical self-reliance support networks being disrupted. In this backdrop, Civil Society and Humanitarian Actors are currently bracing and strategizing diverse initiatives as non-affluent, marginalised and vulnerable groups are already taking a devastating toll.

What is the public health impact?

The public health impact of a crisis is generally estimated in terms of increased or excessive morbidity and mortality. It is still too early to either estimate or predict the excessive morbidity or mortality. However, there is evidence such as worsening levels of child nutrition and food security which are indicators of direct public health impact. Also, very importantly, the present crisis is impacting the public in different and complex pathways which include the health system itself and the resulting impact on the population.

i. Individual and household level impact

A recently conducted UNICEF survey (2021) notes that 'Loss of income or lowering of income is compensated by reducing food intake at household level' and this has a direct impact especially on the

country's population of children, particularly from marginalised populations.

A recent study conducted by the Medical Research Institute (MRI) in collaboration with the WHO and Unicef, on the "Gaps in energy and nutrient consumption at household level", revealed that one third (1/3) of children under five surveyed have at least one nutrition problem⁴. It also revealed that moderate to severe food security is an issue particularly in the Central and Eastern Provinces and in the Estate Sector and needed targeted interventions. Addressing food insecurity is extremely urgent and essential as people experiencing moderate levels of food insecurity will typically eat low quality diets and might have been forced, at times during the year, to also reduce the quantity of food they would normally eat, while those experiencing severely low levels would have gone for entire days without eating, due to lack of money or other resources to obtain food.

Psychosocial impact

The COVID-19, and now the ongoing economic crisis, are having a serious impact on mental wellbeing. The psychological impact of COVID-19 amongst different groups – children, pregnant women and health care workers are well documented⁵. There is also increased incidence of domestic violence and child abuse.

ii. Impact on the health system

Economy is closely woven into the health of the people of a nation. Sri Lanka, having a universally free health care delivery system with the State providing the giant share of coverage in terms of both outpatient care and in-patient care. With the economic crisis, the government is facing a difficulty in funding to provide

essential services. The shortage and rise of the prices of essential drugs and medical supplies for both preventive and curatives services, are serious concerns which need to be addressed. It is also public knowledge that drug manufacturing companies and their agents were also taking advantage of the fluctuation in the foreign exchange rates and increasing prices disproportionately.

Recommendations

The country is at a turning point. All the gains that we have had in the health sector can be reversed if urgent and rational measures are not taken by the policy makers and country's leaders. Short, medium term and long-term measures are needed, some primarily outside the health sector.

1. Creating a **social support network** to the most vulnerable groups -
 - a. Setting up **food banks** in identified areas (including urban low-income settlements) where the nutritional indicators show a declining trend. This will be implemented on the basis of the local traditional notion of "sharing and caring". This can be done with the support of individual donors/neighbours, community-based organizations (CBOs) non-governmental organizations (NGOs) and the private sector. The model is to maintain a stock of essential food items, the types and quantities worked out on specific caloric and other nutritional requirements, to be shared with needy families in each village/community. The beneficiary families are also expected to donate back to the food bank when their situation improves. There

should be an educational campaign to promote locally available nutritional food and positive food habits.

b. Establishing **community kitchens** attached to pre-schools to provide a nutritious and balanced meal to under 5 year old children in the area. There are large numbers of rural and urban pre-schools which are run by individuals, community organizations, local government bodies and provincial councils. Current practise in these pre-schools is for the children to bring a food pack for lunch, which is often lacking in essential nutrients particularly in poor communities. Here the community collects food rations with the support of the parents and also other groups mentioned above, to prepare a nutritious meal to be shared by all children attending this preschool.

c. Providing **Psycho-social support** - It is essential to have decentralized psycho-social support systems including 24-hour help line to respond to the needs of individuals and families who are facing serious mental health problems and domestic violence including gender-based violence (GBV) and violence against children. Community level trained befrienders and counsellors linked to a referral system play a crucial role in this endeavour.

2. To develop a mechanism to **link hospitals and clinics with local social services sector**. The recent COVID pandemic was an example where the NGOs played a significant role in providing social support to the needy. This could be extended

to the post-covid period, to strengthen and extend its links between the social services sector and health. Such a programme could provide much needed support for the poorer segments of society. The assistance in this instance could be obtained using existing mechanisms, referral to social workers or by utilizing NGOs active in the communities. The state social service sector can also be invited to be a part of this mechanism. A special fund and collecting centres can be established to gather funds and donations. The resource support will be in the short-term (1 to 3 months) and could take the form of packages of dry rations or food, packs of clothes (categorized according to those for children, hygienic measures and elderly etc.), educational materials, kitchen utensils, support for home gardening (E.g. seeds, plants), waste disposal and production of compost. Basic medical advice will also be given (E.g. vaccination). Selected Hospitals will have to be provided with publicity materials and short awareness-raising workshops.

A generic referral form should be made available to be signed by consultants in charge of the patient giving specific details as regards the illness and disability. The referral form or leaflet would include contact details of the locally active NGOs.

3) **Promoting Home Gardening** - Home gardening has been a long-standing practice in Sri Lanka. It is estimated that more than 35% of the population is engaged directly or indirectly in the agrarian sectors. Generally, home gardening practiced in a small piece of land which is close to the family residence. Crops are cultivated fully or partially for domestic consumption. Home

gardens have been recognized as an essential source of food energy and nutritional security and in providing livelihoods. Many local non-governmental organizations, along with the Department of Agriculture, have promoted home gardens by raising awareness, distributing planting materials, and providing training to farmers. It is recommended to develop an "organized home garden" (OHG) sector which would follow the best practices.

4) More specifically on the health sector - **strengthening primary care** would be essential. As people will find it more and more difficult to travel to secondary care institution due to rising cost of transport, making sure that the primary care institutions, both preventive and curative, are well staffed and provided with adequately supplies, will go a long way in reducing the negative impact of the economic crisis. The World Bank funded Primary Health Care System Strengthening Project (PSSP) currently implemented by the Ministry of Health, could be accelerated and expanded to achieve this objective.

In conclusion, overcoming the current crisis calls for a multipronged, community centred, scientific and participatory approach where citizens and professionals work hand-in-hand to ensure food security and safeguarding vulnerable children and communities. Of course, **the long-term solution to this crisis will have to be connected to creating a more equitable, just and fair economic order based on sound governance practises**. During the height of the COVID-19 pandemic, the need for a "whole of society approach" was the clarion call by the Director General of WHO. Today, a "whole of society approach and beyond" will be

required for us to come out of this grave crisis. We need to continue to look at mid-term and long-term solutions to ensure these communities are resilient to the economic pressures and shocks.

“Global recession is likely to damage our health as well as our wealth, but it also offers an opportunity to build a more equitable economic model”

- Michael Marmot and Ruth Bell⁶

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WHAT A WOMAN Irena Sendler



Irena Sendler in 1942 (age 30) and in 2008 (age 98)

Died: 12th May 2008, aged 98, in Warsaw, Poland.

During World War II, Irena, got permission to work in the Warsaw ghetto, as a Plumbing/Sewer specialist.

She had an ulterior motive. Irena smuggled Jewish infants out in the bottom of the tool box she carried. She also carried a burlap sack in the back of her truck, for larger kids.

Irena kept a dog in the back. She trained the dog to bark when the Nazi soldiers let her in and out of the ghetto. The soldiers, of course, wanted nothing to do with the dog, and the barking covered the kid's/ infant's noises.

During her time of doing this, she managed to smuggle out and save **2500** kids/infants.

Ultimately, she was caught, and the Nazis broke both of her legs and arms and beat her severely.

Irena kept a record of the names of all the kids she had smuggled out in a glass jar that she buried under a tree in her back yard. After the war, she tried to locate any parents that may have survived and tried to reunite the family. Most had been gassed. Those kids she helped got placed into foster family homes or adopted.

In 2007 Irena was up for the Nobel Peace Prize. **She was not selected.**

Al Gore won, for a slide show on Global Warming!!!

Later, Barack Obama won, for SIMPLY BEING THE FIRST BLACK PRESIDENT!!!

It is now more than eight decades after the Second World War in Europe.

This notification is a memorial chain, in memory of the six million Jews, 20 million Russians

10 million Christians and 1,900 Catholic priests who were murdered.

Now, more than ever, with quite a few countries claiming the HOLOCAUST to be 'a myth', it is imperative to make sure the world never forgets.

That is simply because of the fact that there are others who would like to do it again.

*From an e-mail forwarded by Mrs. Esther Amarasekera.
Sent by Dr B.J.C. Perera*



KIDS PLAY AREA



MULTI-PURPOSE COURT



OUTDOOR GYM

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UPTOWN
COLOMBO

ACTIVITIES
Beyond Compare



ZEN GARDENS



INDOOR GYM



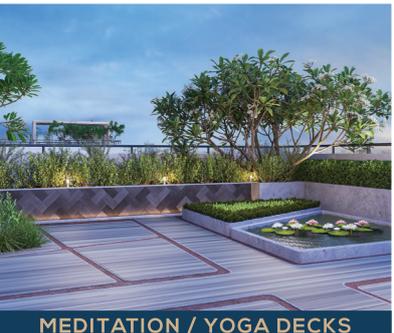
2 ACRES OF OPEN TO SKY GARDENS



NETBALL / BASKETBALL COURTS



CAMPING AREA



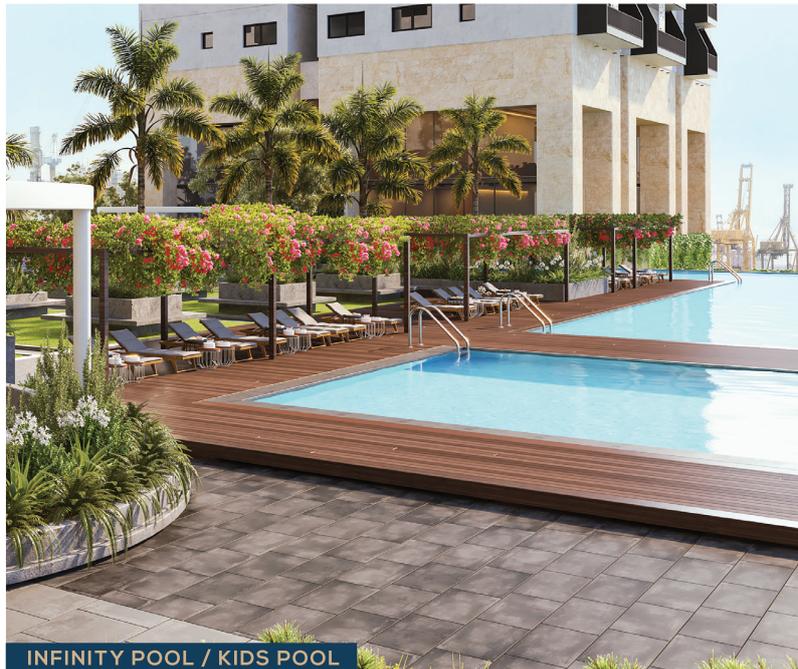
MEDITATION / YOGA DECKS



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Economics aspects of Health care provision in the current Financial crisis

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Sri Lanka is a country with a population of around 22 million people, with the populace ageing rapidly, and is in the late stages of both demographic and epidemiological transitions.

Multiple stakeholders are involved in financing the healthcare needs of Sri Lankans. They include the Government, individual citizens (households), employers, insurance companies, international donors, and local NGOs.

The Government has several financial arrangements (Financing Schemes) to manage, collect, pool revenues, and purchase/produce healthcare services. The Central Government scheme covers the hospitals that are directly managed under the Central Ministry of Health and vertical preventive/disease control programmes. Further, there are hospitals managed by Ministries of Defence and Justice.

The Provincial government scheme manages finances related to healthcare services implemented by Provincial Governments (i.e., healthcare provided by some Base Hospitals, Divisional Hospitals, Primary Care Units, and Medical Officer of Health Units) and Local Governments (Municipal Council and Pradeshiya Sabha Health Clinics).

The funds meant for the central institutions are directly channelled through the budgets of respective

ministries. Government funds for the Provincial and Local Government institutions are usually channelled through the Finance Commission. In addition, the Central Ministry of Health directly issues a considerable amount of funds to provincial-level institutions.

Though above Financing schemes had several structural limitations, Sri Lanka had a well established, acceptable and well-functioning health finance system, when compared to many developing countries.

The Government financial schemes had catered for 7 million in-patients in 1146 government hospitals in 2018. The number of outpatients treated in the above government hospitals was reported as 57.4 million in 2018. Sri Lanka's per capita current health expenditure was USD 163 in 2018, to which Government contributed USD 73. The Ministry of Health spent Rs 250 billion on Health care provision in 2018. This included Rs 40 billion as Capital expenditure. (latest available National Health Accounts).

Nevertheless, Sri Lanka has achieved strong health outcomes over and above what is commensurate with its income and health expenditure levels. Equity and efficiency of these outcomes are largely credited to the strong state health care system (Health System Review 2021).

Sri Lanka's annual Gross Domestic Product (GDP) was around USD 90 billion in 2018. Hence the country had only a limited Fiscal Space to enhance its health expenditure, even under normal circumstances. Over the years, the total Health

care expenditure was about 3.5% of GDP while the Government's contribution was around 2%. Moreover, out of the Government budget, 8% was spent on health.

From the macroeconomic aspect, Sri Lanka went on to give huge tax concessions from 2019 and borrowed heavily to finance the economy, while printing money. Sri Lanka's GDP has dropped to USD 81 billion by 2021 (from USD 90 billion in 2018) severely affecting the already limited fiscal space. Sri Lanka's public debt has risen from 94% of GDP in 2019 to 119% of GDP in 2021. The country's official reserves were USD 2.36 billion in January 2022, having dropped by 79% over the last 3 years. Moreover, Sri Lanka has to pay around USD 4.4 billion annually until 2025 as debt repayment.

Due to lack of inward remittances, mainly from expatriate workers, increased cost of essential imports, reduced income from tourism due to the COVID pandemic and reduction in export crops due to fertiliser ban leading to high cost of production and less competitiveness in the international market, and repayment of foreign debts, there is a huge foreign currency crisis in the country in addition to lack of domestic funding.

This economic crisis will affect healthcare provision both in the short run and longer term. As mentioned earlier, Sri Lanka even before the present crisis, had very limited fiscal space to enhance spending on already matured healthcare system. In a matured system, a country has to spend significantly more money by way of recurrent expenses and capital investment to maintain the

achieved health status or to further develop it. For example, it is much easier to reduce the maternal mortality rate from 50 to 40 when compared to a reduction from 33 to 28.

In the short run, the scarcity of the foreign currency will affect supply of drugs as nearly 80-85% of drugs used in Sri Lanka are imported. With the marked depreciation of the rupee there will not only be a shortage but also price increases, as witnessed recently. The same scenario is applicable to medical instruments and equipment as almost all of them are imported. Furthermore, due to cash flow limitations, currently the Ministry of Health has around Rs 4.2 billion outstanding payments for Medical supplies.

Acute fuel shortage will affect the patient transfers (via ambulances) and the supply chain of drugs to the hospital system. Frequent and long hours of electricity supply interruptions would require hospitals to use their generators. Use of generators will be hampered by lack of fuel, jeopardising many lives, especially those dependent on life saving machines. Gas shortage will affect the supply of cooked meals for the inpatients and minor staff in Government hospitals.

Our strength in the Health care system; the preventive arm, will be severely affected due to frequent and prolonged electricity interruptions, as it will be a daunting task to maintain the cold chain for vaccines.

Increasing prices of drugs and medical devices and laboratory services will further challenge the already rising out-of-pocket expenses (OOPs), which have

already gone beyond 50% of the total recurrent health expenditure. OOPs rising above 65% will be a huge challenge to the concepts of Free Health and Health for all.

Over the past few years, the Ministry of Health's budgetary allocation had been between Rs 200-250 billion, and normally it increases every year due to the expansion of health services. Given the current economic crisis, whether the Government will be able to afford at least what is spent in 2021 in 2022 and 2023 is questionable. The major reduction would be on capital expenditure. As mentioned elsewhere we have a matured health system. In order to further develop such a system or at least to sustain it, adequate capital investments are essential. Present crisis will hamper capital investment and consequences of that will manifest only in the long run. Further, under the circumstances it is likely that the cornerstone of our health system; the preventive health system, to get affected disproportionately. Moreover, at present the Ministry of Health has around Rs 3 billion outstanding payments for capital expenditure incurred.

The Ministry of Health incurs around Rs 30 billion as extra-duty payments per year for its staff. Currently the ministry has no cash inflows to accommodate the monthly extra-duty payments. Therefore, whether the health staff will get their extra-duty payments in the near future are questionable.

In the longer run without the expansion of the hospital system and the facilities, future employment of health staff especially the highly skilled specialists, will become an issue.

Other than the doctors and dental surgeons, almost all other health staff categories are trained by the Education Training and Research (ETR) Division of the Ministry of Health. Due to the economic crisis, if the recruitment for training is delayed, suspended or stopped the consequences of which will manifest only after 3 to 4 years due to long training periods.

Sri Lanka is one of the every few countries in the whole world which has a mandatory overseas training component for post graduate medical trainees. UK and Australia are the more popular destinations for overseas training of Sri Lankan doctors. The Ministry of Health provides, a monthly allowance of 2000 Sterling Pounds or around 2000 Australian dollars for trainees going to UK and Australia respectively, for a period of 1 year. Given the presence foreign currency crisis whether the Ministry will be able to continue the payment of above allowances is debatable.

In summary, some of the policy decisions taken in recent times seem to be ill conceived and badly timed. For example, tax reductions, dollar was peg for too long, going for exclusive organic fertiliser which should have been implemented over 10-15 years and executed overnight, starting of the 2nd dental school at Sri Jayawardapura University, which was not even in the radar of priority; BDS degree being the most expensive undergraduate programme in Sri Lanka.

These poor decisions will have a greater impact on the healthcare delivery system by direct and indirect means and in the short and long runs.

Clinical Practice Guidelines on Identification and Management of Acute Dengue Infection for Primary Care/ First Contact Doctors

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Introduction

In the present hyper-endemic setting in Sri Lanka, dengue illness (Dengue Fever [DF] and Dengue Haemorrhagic Fever [DHF]) should be considered in the differential diagnosis of all patients presenting with acute onset of fever. Primary care clinicians should be prepared to detect dengue and COVID-19 without any delay in the current context. Failure to recognize dengue will compromise clinical management leading to impaired hydration in patients, ultimately resulting in preventable dengue-related deaths due to complications. On the other hand, not detecting a suspected COVID-19 patient early, in addition to delayed patient care, will facilitate community transmission of COVID-19 as the patient mingles in the community, unaware of his/her disease status.

Therefore, a dedicated practice guideline on identification and management of acute dengue infection and COVID-19 for primary care (first contact) doctors was considered an urgent need. A technical expert team was formed, comprising of the dengue focal point at the Epidemiology

Unit, Ministry of Health, President College of General Practitioners, together with several other selected contributors to facilitate this task (accessible from www.epid.gov.lk). Also, there are similar updated guidelines for the management of COVID-19 patients developed by experts for further reference.

Early diagnosis of dengue illness

A patient presenting with fever from a dengue-endemic area or a person living in a non-endemic area traveling to an endemic area, especially during the rainy season or during an outbreak of dengue, needs to be considered as a suspected case of dengue as the initial diagnosis. Further, a primary care doctor should inquire for other diagnosed cases of dengue in the family or immediate neighborhood during the past 2 weeks. High Fever (40°C or 100°F) measured with a reliable thermometer with two or more accompanying features (body aches, facial flushing/ diffuse blanching erythema of the skin, back pain, myalgia, arthralgia, retro-orbital pain, headache, nausea, vomiting, anorexia, and a skin rash) usually without a focus of infection, are suggestive of a dengue illness.

A fresh Full Blood Count (FBC preferably done on day 3 of fever) with leucopenia (<5000/mm³) and reversal of neutrophil to lymphocyte ratio (atypical lymphocytosis) and a petechial rash give a 80% positive predictive value of a dengue illness. Also, reliable Rapid Diagnostic NS1 Test

(RDT) is likely to be positive during the first 3-5 days. If NS1 is positive and FBC already not done, doing an early FBC will provide baseline values. However, even if RDT-NS1 is negative, one has to consider dengue if it is clinically suggestive.

Patients with COVID-19 might also present with fever of acute onset along with other non-specific symptoms such as sore throat, headache, arthralgia and myalgia. However, dry cough or shortness of breath may be predominantly observed in COVID-19. Later on, leucopenia with lymphopenia, thrombocytopenia and elevated liver enzymes may be seen in laboratory investigations. COVID-19 with dengue as a co-infection is also a possibility. These features may lead to difficulties in making an early and complete diagnosis. Thus, careful consideration is needed before arriving at a final diagnosis.

Differentiation of dengue fever from DHF

The major difference in DF and DHF is the presence of transient plasma leakage in DHF. Dengue Haemorrhagic Fever is also currently defined as Dengue Vascular Permeability Syndrome (DVPS). The first contact doctor is responsible for making all attempts to identify DHF early. The prognosis of dengue patients will depend on early differentiation and if missed can lead to a poor outcome.

Dengue Vascular Permeability Syndrome usually occurs when fever is settling or has settled (defervescence). The patient will

not be regaining the appetite (persistence of LOA) even after settling of fever. Hemodynamic changes such as tachycardia with low volume pulse and narrow pulse pressure are observed in DVPS. Reduced urine output is an important finding.

Following FBC changes are seen in serial counts; WBC (tendency to go up compared to immediate previous value), platelets (less than 100,000 cells/mm³ or a rapid fall) and HCT/PCV rising towards 20% of baseline value. However, the clinical presentation of fluid in pleural and/or peritoneal cavities confirms plasma leakage in DHF but it may be a late sign. In adults, HCT rise is an important early indication of plasma leakage even in the absence of changes in vital signs (e.g.: Absence of tachycardia and narrow pulse pressure).

Risk assessment and early identification of disease severity

Transient increase in capillary permeability occurs selectively in the pleural/peritoneal cavities leading to plasma leakage in DHF between 2 to 7 days. Extravascular leak, if not detected and treated adequately, could lead to impending shock or shock (also known as dengue shock syndrome – DSS). It is important to identify vascular leaks early to prevent shock. However, most patients will develop warning features of excessive plasma leakage before developing full-blown shock. Primary care doctors should make their patients aware and be competent to detect the following features of impending shock (these are late warning features of considerable leaking);

- i. No improvement in general well-being when fever settles,
- ii. Persistent vomiting,
- iii. Abdominal pain,

- iv. Lethargy, restlessness or sudden behaviour change,
- v. Postural giddiness,
- vi. Bleeding (vaginal, epistaxis, haematemesis, melaena etc. may initially present as concealed bleeding. Therefore, bleeding is to be suspected in a haemodynamically unstable patient despite adequate fluid therapy),
- vii. Cold and sweaty peripheries,
- viii. Low/no urine output (UOP) for 4- 6 hours.

In a fever patient suspected of having dengue infection, the primary care clinician should make an early assessment to identify leaking based on the duration of fever, presence or absence of warning features of plasma leakage, vital parameters including Urine Output, and values of a fresh Full Blood Count (FBC) done within past 4 hours. If there is no immediate risk (no plasma leakage and/or bleeding) such patients should be reviewed repeatedly. Patients with a tendency to have plasma leakage or any other complications should be referred to a hospital for specialized management.

Role of primary care doctors

Following are the roles of primary care clinicians;

- i. Early identification of dengue illness from other febrile illnesses (OFI),
- ii. Plan and implement ambulatory care management,
- iii. Attempt to differentiate DHF from DF,
- iv. Referral of at risk patient (early DHF and DF with complications) for secondary care management,
- v. Stabilize the shock patient

(DSS) prior to referral to the hospital,

- vi. Counselling at each stage of presentation,
- vii. Notify on clinical suspicion to the area Medical Officer of Health (MOH) where patient has resided during two weeks prior to the illness.

Counselling, management and early referral

The primary care doctors usually establish a good relationship with the patient and family members from the time of first visit, the importance of which cannot be overemphasized. Information should be given regarding favourable outcomes of dengue, with appropriate management. In addition, information must also be given regarding ambulatory care and early referral to a hospital when required.

Thus, the management of patients at the primary care level includes;

- i. Early identification of dengue illness and providing appropriate ambulatory care,
- ii. Timely referral of probable DHF patient for specialized management,
- iii. Identification and stabilization of patients presenting in impending/shock and referral.

Fever should be controlled with paracetamol ONLY. Use tepid sponging to bring down fever in-between paracetamol dosing. Do not use NSAIDs and steroids. Request the patient to drink adequate fluids to maintain a normal urine output. Patients should be asked to record the fluid intake and amount of urine passed with time, recorded using a simple format. Educate the patients regarding warning features of impending shock and to seek immediate treatment without

waiting for the next appointment to see the doctor.

Pitfalls in diagnosis and management

Following are the most important pitfalls in diagnosis;

- i. Low index of suspicion of dengue/DHF leading to delay or misdiagnosis,
- ii. Failure to follow daily FBC including platelet count and HCT,
- iii. Over-reliance on rapid diagnostics (RDT) - cannot differentiate DHF from DF,
- iv. Misjudging leakage phase of DHF leading to shock,
- v. Delay in recognizing DSS due to good consciousness
- vi. Ignoring narrow pulse pressure with increasing diastolic pressure (e.g. BP 110/90

mmHg) before developing hypotension (drop in systolic pressure),

- vii. Not recognising concealed bleeding with relatively high HCT/PCV due to plasma leakage,
- viii. Failure to recognize risk factors for bleeding – peptic ulcers, menstruation.

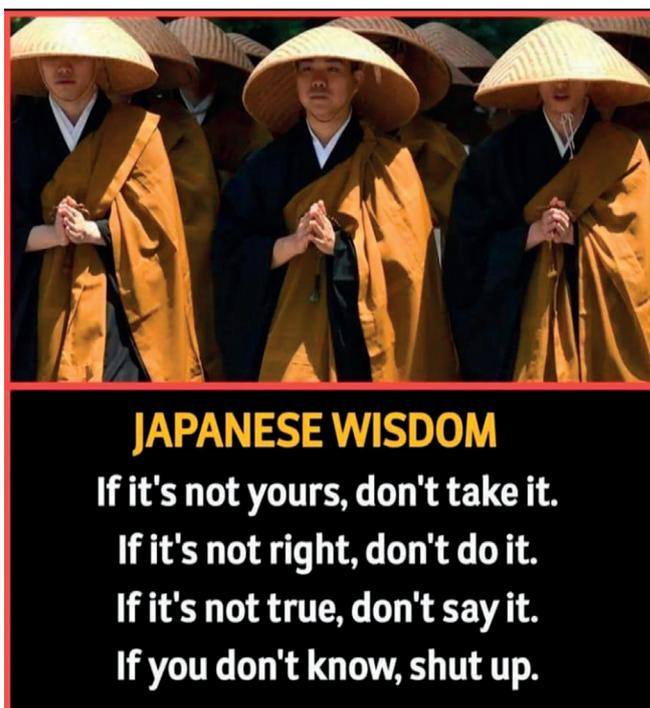
Following are the most common pitfalls in management;

- i. Inappropriate use of antipyretics - despite inability to shorten duration of fever (febrile period due to viremia),
- ii. Use of drugs contributing to increasing the chances of haemorrhage, hepatic dysfunction, and a false sense of well-being (e.g NSAIDs, steroids),
- iii. Giving unnecessary IV fluids (e.g. for DF cases without

dehydration or plasma leakage),

- iv. Use too much hypotonic solution (including plain water) during the early phase of leaking,
- v. Failure to recognize concealed bleeding for early referral for blood transfusion.

These comprehensive clinical practice guidelines for primary care doctors were developed through technical consensus and have been disseminated to both government and private clinical healthcare settings in Sri Lanka. Favourable improvement is expected through better understanding and application of that knowledge into clinical practice in the management through a multi-disciplinary team approach initiated by the primary care doctors.

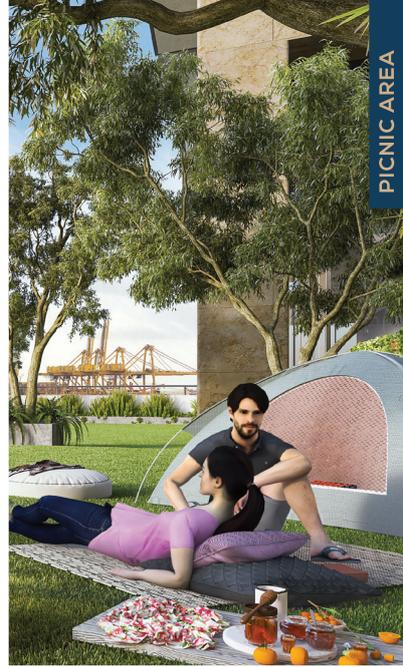




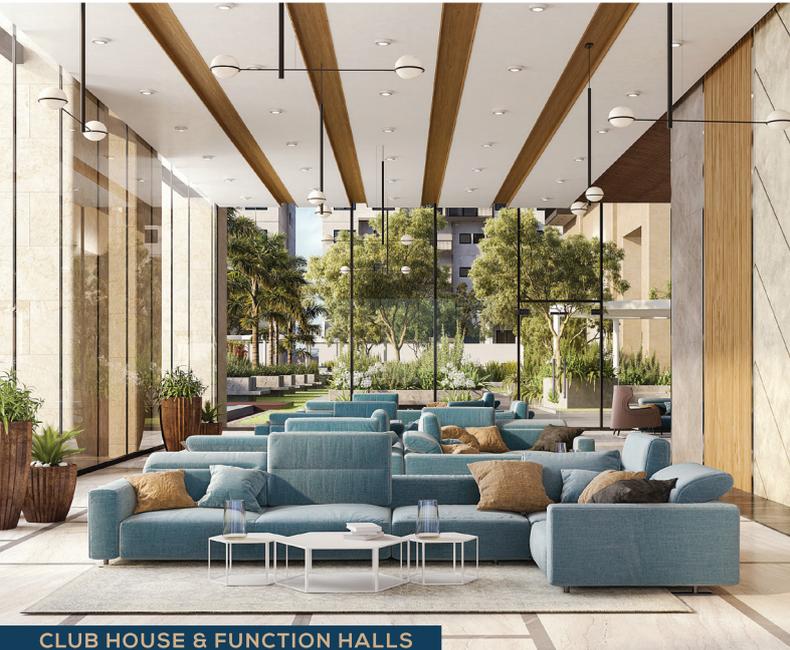
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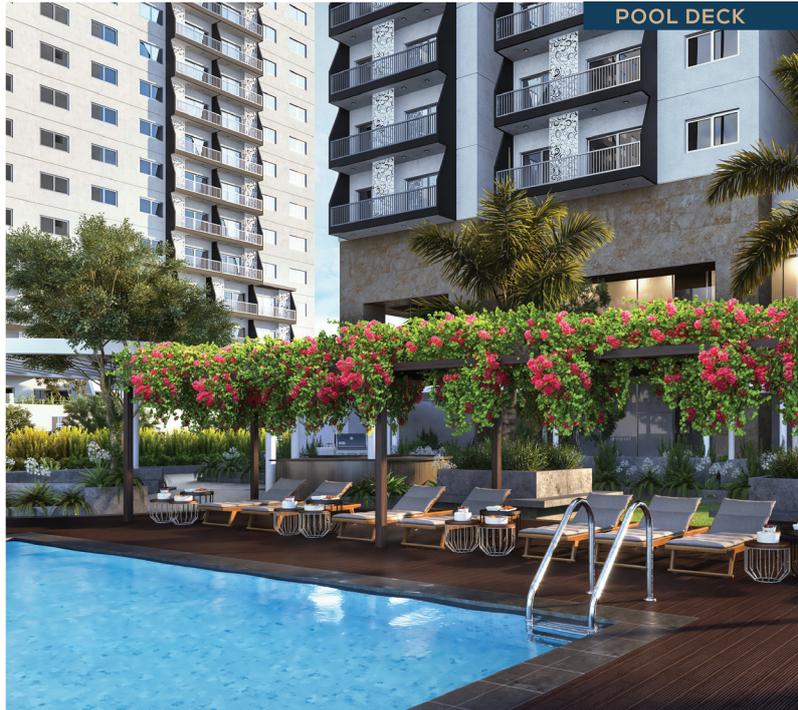
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Dispelling the Myths on Kidney Disease: A Review

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Chronic kidney disease (CKD) is a major health burden in Sri Lanka. Accurate knowledge is essential in correct diagnosis and management of CKD. However, there are various misconceptions with regard to CKD. In this article, we discuss the common myths prevalent in the medical community.

Myth 1: It is essential for Serum creatinine to be above the reference range to diagnose CKD

Fact: CKD is defined as any structural or functional abnormalities in the kidney lasting for more than 3 months. Even with normal creatinine, CKD can be diagnosed if the patient is having albuminuria $\geq 30\text{mg}/24$ hours, abnormalities in the urine sediment, electrolyte abnormalities due to tubular disorders, and abnormal histology or abnormalities on imaging (1).

Myth 2: Marginal elevation of creatinine is not significant

Fact: Generally an elevated serum creatinine is considered a marker of renal damage. However in early phase of decline in glomerular filtration, serum creatinine may remain within the reference range until up to 50% decrease in Glomerular Filtration Rate (GFR)(2). Therefore, using serum creatinine alone is unreliable. Hence, the determination of GFR would

provide a more accurate diagnosis of CKD allowing early interventions to be initiated to slow-down the progression.

Myth 3: Estimated GFR is a perfect measure of kidney function

Fact: GFR is identified as the best overall index of kidney function(1). Since GFR measurement with clearance of endogenous or exogenous markers such as creatinine and Cystatin C, is complex, e-GFR is derived with serum concentration of above markers(1). e-GFR is calculated with accepted formulae including CKD Epidemiology Collaboration (CKD-EPI), Modification of Diet in Renal Disease (MDRD), and Cockcroft Gault. Similar to all other diagnostic tests it may give false positives depending on clinical circumstances. To employ the above formulae, serum creatinine should be at a steady state(1). The serum creatinine level is affected by GFR and non-GFR determinants. GFR determinants include Acute Kidney Injury, haemodialysis and peritoneal dialysis where creatinine elimination changes considerably. Non-GFR factors are due to changes in serum creatinine production as a result of variations in muscle mass or diet. Malnutrition, high/ low protein diet, extremes of age, and muscle wasting disorders are common examples. Spectral interferences (Bilirubin, some drugs) and chemical interferences (Glucose, ketones, bilirubin and some drugs) can alter the readings of the creatinine assays(1). Hence, the eGFR calculation will be erroneous in above circumstances.

Myth 4: Combining ACEI and ARB reduces CKD progression

Fact: Increased proteinuria is associated with increased rate of CKD progression (1). Although ACEI and ARB reduce proteinuria temporarily, randomized control trials (RCT) show that dual Renin-Angiotensin System (RAS) blockade with ACEI and ARB has no long-term renal benefit(3). However, there is an increased risk of hyperkalaemia and AKI(3). Therefore, it is recommended to avoid dual therapy in patients with CKD regardless of diabetes, or albuminuria (3). Furthermore, because of adverse outcomes, combining an ACE-I with an ARB to prevent CKD progression is discouraged. (1).

Myth 5: All patients with kidney disease should drink plenty of water

Fact: It is mandatory to restrict fluid in later stages of CKD if excess fluid accumulation is indicated by the presence of ankle oedema, ascites, and pleural effusion. However, in conditions like recurrent urinary tract infections and renal calculi, it is advisable to consume plenty of fluids. According to literature, there is a U-shaped relationship between water intake and kidney failure, thus indicating that low and high water intake may not be beneficial in CKD(4). However, international guidelines have no recommendations in relation to fluid intake in CKD patients (1).

Myth 6: Low Potassium diet is a must in all CKD patients

Fact: In CKD, there is a risk of hyperkalaemia. However, there is evidence indicating multiple benefits of a potassium rich diet, including reducing blood pressure and reducing risk for stroke and cardiovascular disease in CKD patients. Benefits are attributed to fibre, vitamin and mineral content of potassium rich foods(5). Further, potassium rich diets may prevent CKD progression and have a mortality benefit(5). There is no direct evidence to support dietary potassium restriction in advanced CKD, nor to confirm the safety of increased potassium intake(6). However, in patients with advanced CKD and hyperkalaemia, the current recommendation is a low-potassium diet. Furthermore, it is recommended that the patients with CKD should receive individualized dietary advice on potassium intake tailored to the severity of CKD and serum potassium level(1).

Myth 7: All patients with CKD stage III and above should be on CaCO₃ and vitamin D supplements

Fact: From early stages, bone mineral metabolism, calcium, and phosphate alter in CKD, resulting in Chronic Kidney Disease - Mineral and Bone Disorder (CKD-MBD). It includes renal osteodystrophy and extra-skeletal (vascular) calcification. However, abnormalities of calcium and phosphate tend to appear relatively later in the course of disease. From CKD stage III onwards, the kidney loses its ability to excrete phosphate, thus leading to hyperphosphatemia, which is associated with mortality, bone disease, vascular calcification and cardiovascular disease (1, 6).

It is recommended to maintain serum phosphate concentrations in normal range for patients with GFR < 45 ml/min/1.73 m² (GFR categories GIIIb-GV) (1). CaCO₃ is an effective phosphate binder. But, there are caveats. For example, CaCO₃ cannot be given to patients with tertiary hyperparathyroidism as the patient is already hypercalcaemic. Further, CaCO₃ should be given with meals to work as a phosphate binder. If CaCO₃ is to work as a calcium supplement, it should be given well away from meals (reference)

Further, vitamin D supplements increase both calcium and phosphate absorption. Hence, it should be used with caution in patients with hyperphosphatemia. In addition, vitamin D gives a negative feedback to parathormone (PTH) secretion. Over-enthusiastic replacement of vitamin D will result in adynamic bone disease. Therefore, calcium and vitamin D supplements should be used after meticulous assessment of CKD-MBD at least after evaluation of ionized calcium, phosphate, vitamin D level, and intact PTH.

Myth 8: Some types of NSAIDs are safe in CKD

Fact: Non-steroidal Anti-inflammatory Drugs (NSAIDs) are renally excreted and potentially nephrotoxic. The known pathophysiological mechanisms whereby non-steroidals cause renal toxicity include acute tubular necrosis, acute tubulointerstitial nephritis, hyperkalaemia, minimal and membranous glomerulopathy. Therefore, NSAIDs, both cyclooxygenase-1 (COX-1) and COX-2 inhibitors are causes of AKI and acceleration of CKD progression. It has been proven beyond doubt that even Sulindac, once thought to be harmless, is toxic to the kidney. Thus, it is recommended that prolonged use

of NSAIDs is avoided in patients with GFR <60 ml/min/1.73 m² and complete withdrawal of NSAIDs in patients with GFR <30 ml/min/1.73 m²(1).

Myth 9: Metformin can cause CKD

Fact: Metformin is the first line oral hypoglycaemic agent in the treatment of type 2 diabetes. It is eliminated unchanged through kidneys. However, in CKD, as the GFR decreases, there is reduced clearance of the drug. This ultimately results in higher risk for lactic acidosis due to accumulation of metformin (8). Therefore, metformin can be used if the GFR is > 45 ml/min/1.73 m² and should be reviewed in those with GFR 30–44 ml/min/1.73 m²(1). It has to be discontinued if GFR <30 ml/min/1.73 m² (1). Although metformin does not cause renal damage, diabetic nephropathy is a complication of diabetes that affects 20-40% of patients. (8).

Myth 10: Low calcium diet is must in renal stone disease

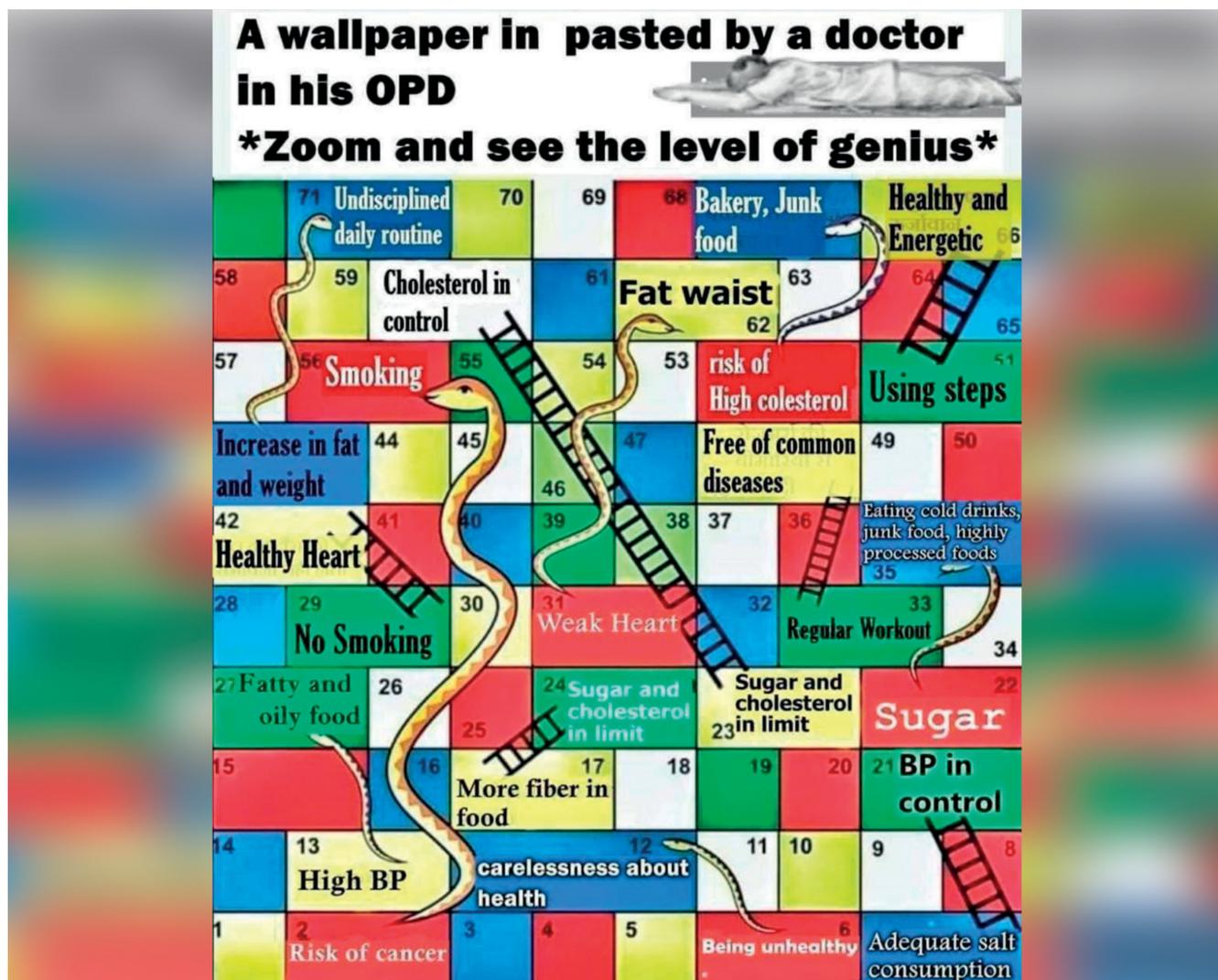
Fact: The majority of renal stones are made of calcium and oxalate; hence, it is a common misconception that higher the calcium intake there is a higher chance to acquire renal stones. In fact, high calcium intake will chelate oxalate in the gut resulting in less absorption of oxalate(9). Therefore, the oxalate concentration in urine will become low with a lesser chance of stone formation(9).

Summary

This review focused on a few major misconceptions on CKD in the medical community. It would provide better insight, thereby increasing knowledge in the medical community and improve patient outcomes.

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Evolution of Anaesthesiology in Sri Lanka

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What is recognised as the first general anaesthetic was administered at the Massachusetts General Hospital on 16 October 1846. Circumstantial evidence suggests that Samuel Green who established the American Ceylon Mission Hospital at Manipay in 1848 may have been the first person to use ether as a general anaesthetic in Sri Lanka but the exact date when general anaesthesia was first used in Sri Lanka is not known.

The first published reference to anaesthesia is in 1879. "Regulations and Instructions for the Officers of the Civil Medical Department" states that House Surgeons "shall under the direction of the surgeon, administer chloroform" It is apparent that chloroform was the anaesthetic of choice then. When chloroform was introduced into Sri Lanka is unknown. In 1887, Schokman described 7 surgical cases he had treated at Galle. He used chloroform in 4 of them.

At the General Hospital, Colombo, Dr David Rockwood was appointed anaesthetist in 1904. He was succeeded in 1909 by Dr Joseph (JS) de Silva. Elsewhere chloroform was administered by whoever was available.

By this time concerns were expressed in the Western countries over the safety of chloroform with nearly five times more deaths than with ether which was the preferred anaesthetic. However, in Ceylon chloroform was preferred. A report in 1915 indicates that both

chloroform and ether were in use, chloroform initially and chloroform with ether added if surgery was prolonged.

RL Spittel published 'A Basis of Surgical Ward Work' in 1915. The book sheds light on the state of knowledge and practice that existed at that time, relating to preoperative fasting, premedication, treatment of postoperative pain, nausea and vomiting.

Spinal anaesthesia is referred to in 1928, Gunaratnam Cooke giving details of the technique. Rectal administration of ether and oil was described in the 1920s. It produced deep narcosis lasting several hours. Joseph de Silva mastered this technique using rectal ether even for thyroidectomy.

The apparatus used to administer anaesthesia in the 1940s were the Silk mask and chloroform in a bottle calibrated in drachms. One drachm of chloroform was poured on to a piece of lint in the mask which was held over the nose and the closed mouth about half an inch above the face. Intermittently the anaesthetist smelt the mask. If no chloroform was smelt, a further drachm of chloroform was poured.

Depth of anaesthesia was monitored observing the eye lash reflex and the size of the pupils which start dilating and then gradually constrict. When the pupils are pinpoint, the surgeon was asked to start operating.

Spittel's second book, 'Essentials of Surgery' published in 1932 mentions 'gas and oxygen'. What is commonly referred to as 'gas' in an anaesthetic context is nitrous oxide.

In 1933 anaesthesia was recognised as a separate specialty. Dr Anthony Lucas was selected to obtain a higher qualification in anaesthesia. In 1935 he returned having obtained the Diploma in Anaesthesia (UK).

Dr JLC Fernando and Dr Claude Umagiliya returned with the Diploma in Anaesthesia (UK) in 1947/48. Nitrous oxide, the Boyle's apparatus, the use of muscle relaxants, endotracheal intubation and controlled respiration with carbon dioxide absorption, became common place.

In March 1954, Drs J. Richards, S. Ponnambalam, and B.S. Perera were elected to the Fellowship of the Faculty of Anaesthetists of the Royal College of Surgeons, UK, by virtue of the fact that they had passed the two-part Diploma. Dr T. W. Vanniasingham was the first Sri Lankan to obtain the fellowship by examination.

In the early 1950s, Dr J.L.C. Fernando wrote a book 'Reflections of an Anaesthetist'. No copies are available in Sri Lanka but the British Library in London has one copy. The book gives an insight into the clinical practices then prevailing as well as the relationship between surgeons and anaesthetists.

The fact that Sri Lankan anaesthetists have been returning after training in UK ensured that anaesthetic techniques were kept up to date in Colombo. The situation in the Provincial Hospitals was different. In practically all hospitals except Kandy, anaesthesia was carried out by medical officers who had had no or a very superficial training in anaesthesia. Apothecaries administered anaesthetics in District Hospitals.

Epidural analgesia for surgery was first practiced at the General Hospital, Kandy in 1967 by Dr Upali Weerakkody. Halothane was introduced as an inhalation anaesthetic agent around 1964. Halothane has now been superseded by iso and sevoflurane. Ketamine and IV induction agent Propofol were subsequently introduced.

From the early 1980s there was disruption of transport services to the North of the country, resulting in a shortage of compressed gases at the General Hospital, Jaffna. The use of inhalational anaesthesia decreased and in 1990, 80% of operations were done using total intravenous anaesthesia.

Anaesthesia for Cardiothoracic, Neurosurgery, Paediatrics and Obstetrics evolved into subspecialties with dedicated Consultants being appointed. This led to improvements in the safety of anaesthesia.

In 1904 the first Caesarean section was performed. Chloroform was the anaesthetic used. In 1939, Wickramasuriya commented "chloroform is a dangerous anaesthetic to use in case of protracted labour. Many post-operative deaths are due to chloroform. In Great Britain, gas and oxygen and spinal anaesthesia have displaced chloroform". However, the use of chloroform continued and in 1950 Dr P. de S. Wijesekera made a similar comment. A Boyle's apparatus was provided to the De Soysa Maternity Hospital in 1951 and a proper anaesthetic service started in 1952. The operation theatre at Castle Street Hospital started functioning from July 1952.

Two major causes of anaesthesia related maternal deaths are failed endotracheal intubation and aspiration of acid gastric contents. From 1994 two changes took place. Senior Anaesthetists were involved

in obstetric anaesthesia and the routine use of antacids and H2 receptor blockers were introduced. These changes resulted in a reduction in anaesthesia related complications. Gradually spinal analgesia became the anaesthetic of choice for Caesarean Section.

As regards pain relief during labour, use of morphine and hyoscine was described in 1917 at the De Soysa Lying-in-Home. In the 1920s chloroform was in use, at least among the society ladies of Colombo, and in late 1980s the use of epidurals commenced.

An obstetric ICU was opened at Castle Street Hospital in January 1992 followed by one at De Soysa Maternity Hospital in 1995. The first designated Obstetric Anaesthetist was appointed in 2005. Currently there are 6 designated obstetric anaesthetists. In 2019, the last year for which maternal mortality data is available, there were no maternal deaths due to anaesthesia.

Commencement of cardiac bypass surgery served as the incentive for the setting up of the first Intensive Care Unit (ICU), which was declared open on 16th June 1968 at the General Hospital, Colombo. The first unit outside Colombo was opened at Teaching Hospital Peradeniya in 1980. In 2018, fifty years after the first unit was opened, there were 100 units in the country. Today there are about 130 ICUS right round the country.

In the late 1970s Dr M. Vamadevan started a pain service at the Colombo General Hospital. A pain clinic was started in the 1980s. In December 1998, a pain relief service and a pain clinic were established at the Cancer Hospital and a pain clinic was started at the NHSL in 2000. In June 2013 a Pain Management Unit was established at the NHSL under a Consultant Anaesthetist. Pain Clinics function at Apeksha Hospital and several Provincial General Hospitals.

The technique of external closed chest cardiac massage was described in 1960. Weinman used the technique in Colombo from 1963 onwards. In 1992 a multidisciplinary team from Accident Service, NHSL, trained in Singapore and set up the resuscitation room at the Accident Service. CPR training was provided for accident service staff. College of Anaesthesiologists CPR course for medical and paramedical staff was started in 1993. The College established a CPR committee in 2012 and signed a Course Collaboration Agreement with the European Resuscitation Council to conduct Advanced Life Support Provider Courses and Generic Instructor Courses in Sri Lanka, which commenced in 2013.

Dr Harvey Hilliard, Anaesthetist at Charing Cross Hospital, London who came to Ceylon in the late 1890s to help reorganise the Medical College was Lecturer in Anaesthetics in the Medical College. Dr Joseph De Silva also functioned as a Lecturer in Anaesthesia in the Medical School from 1909 till 1935 when the lecturer post in anaesthesia was abolished.

Dr Lakshman Karalliedde was appointed Senior Lecturer in Anaesthesia in the Department of Surgery, Faculty of Medicine, Peradeniya in 1972. The first academic department of anaesthesiology in the country was set up there in the 1980s and Karalliedde was appointed Associate Professor.

Currently there are 3 academic departments of anaesthesia which are recognized by the Postgraduate Institute of Medicine (PGIM), at the Universities of Colombo, Peradeniya and Ruhuna. Universities of Kelaniya and Rajarata have a Senior Lecturer in Anaesthesia attached to a clinical department. The KDU also has a

Department of Anaesthesia.

The Ceylon Society of Anaesthetists was inaugurated on 02.10.1957. It was dissolved and the Association of Anaesthetists of Ceylon was established in 1967. The Association gave way to the Ceylon College of Anaesthetists which held its inaugural meeting on the 26 March 1972. In 1973 the name was changed to the College of Anaesthesiologists of Sri Lanka. The first Scientific Sessions of the College was held in 1984.

To reflect on the involvement of its members in Critical Care and the Management of Pain, the Faculty of Critical Care Medicine and the Faculty of Pain Medicine were inaugurated in July 2010 followed by the first scientific meeting of the two faculties. In 2014 the name of the College was changed to the College of Anaesthesiologists and Intensivists of Sri Lanka. The Constitution was further amended in 2021 to give equal status as a Faculty to the Resuscitation Council of Sri Lanka. A separate Ceylon College of Critical Care Specialists was formed by Board Certified Intensivists in 2021.

In 2011, the College moved into its own premises but with increasing activity of the College, space was

at a premium and in 2020 the College moved to more spacious accommodation at Rajagiriya.

Until the mid-1950s there was no proper training provided to medical officers in anaesthesia. In 1954, the Government and the WHO reached agreement to set up a Training Centre for anaesthetists. This was inaugurated in August 1955. The course was discontinued five months later, the reason given was the University being ready to conduct a postgraduate diploma course in anaesthesiology, which however, never materialised.

From 1959 to 1978 the Primary examination for the Fellowship of the Faculty of Anaesthetists of the Royal College of Surgeons (FFARCS) was held in Colombo. The first MD Anaesthesiology Part I examination was held in January 1981 and the Part II examination in February 1983. From that time, 318 trainees have been Board Certified to date.

Claribel Van Dort, the fourth female doctor in Sri Lanka is the first female on record to have administered an anaesthetic in Sri Lanka. In 1969, Kalyani Nihalsingha and Rathi Ratnavadivel became the first female anaesthetists from Sri Lanka to be successful at the

FFARCS examination. They were the first two fully qualified female consultant anaesthetists in the Department of Health. In 1987, Dr Kalyani Nihalsinghe became the first female President of the College of Anaesthetists of Sri Lanka.

Anaesthesia has evolved from fulfilling a service requirement to a fully-fledged specialty with a scope beyond the original task of providing anaesthesia. The developments fall into two categories. The first is drugs and equipment. The new drugs are cleaner and neater. Advances in equipment have seen the introduction of sterile, disposable syringes, vascular cannulae and breathing tubes to computer controlled anaesthetic machines and electronic monitors.

The second development is in the people required to take advantage of such sophisticated equipment. House officers in anaesthesia now receive supervised, competency-based training. For those who want to make a career in anaesthesia, today's local MD examination is recognised as equivalent to UK's Fellowship examination.

The end result is the impressive safety record of present-day anaesthesia.



After a male octopus breeds with female, he develops dementia. He then lives the rest of his life confused, with apparently no knowledge of previous event.

The creation of the post of Additional Secretary Medical Services of the Ministry of Health

Dr Lucian Jayasuriya

President SLMA (1995)

Up to 1995, the Ministry of Health had Additional Secretaries who were officers of the Sri Lanka Administrative Service.

In 1995, there was discontent among the doctors working for the Ministry about how they were treated by the incumbent Additional Secretary. There were complaints to Hon. A. H. M. Fowzie, Minister of Health, which ultimately made him decide that the incumbent officer should be replaced. At that time, Dr. G Weerasinghe, Consultant Venereologist who was close to the Minister had proposed to him that I be appointed as the new Additional Secretary. This proposal had been supported by Dr. Lalith Chandradasa, then Secretary of the GMOA and Dr. Amal Harsha de Silva, then Director of Lady Ridgeway Hospital. This was done without my knowledge. The Minister had agreed to the proposal, although he did not know me directly. The only instance he had met me was when he attended my induction as President of the Sri Lanka Medical Association in January 1995. The Presidential

Address I made on 'The Health Services of Sri Lanka, Present and Future', had left an impression on him.

The proposers convinced me to rejoin the state health service which I had left prematurely in 1989. This was because President Premadasa due to personal reasons, abolished the Ministry of Women's Affairs Teaching Hospitals when he assumed office.

I was Deputy Manager of the General Hospital Colombo Rehabilitation Project, funded by grant aid from the Republic of Finland. Our project was ending in June 1995.

Meanwhile, the incumbent Additional Secretary tried to remain and make the new post a supernumerary one. This was not allowed by the Minister.

The Minister proposed to the Cabinet of Ministers that I replace the incumbent Additional Secretary. There was a delay in approval, as President Chandrika Kumaratunga, I understand wanted to check my political affiliations. This was because, I had functioned as Director General of Teaching Hospitals (1984- 1989),

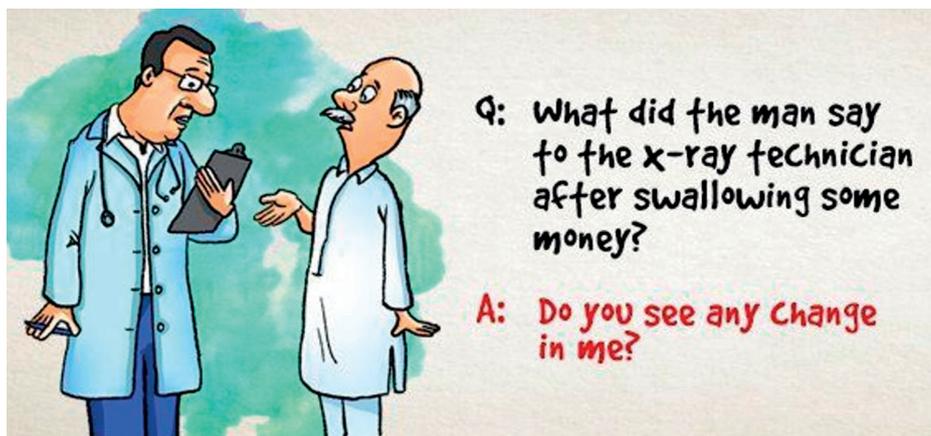
in the Ministry of Women's Affairs and Teaching Hospitals, in the government of President J. R. Jayawardena.

I assumed duties as Additional Secretary Medical Services in the Ministry of Health in November 1995, as the first medical officer to hold that post. I had joined medical administration in 1975, earlier than all medical administrators in the Ministry at that time. I was fortunate to receive the support of all in the Ministry, including that of Dr. Reggie Perera, Director General of Health Services.

When I retired in 1997, and the post became institutionalized as Dr. Reggie Perera was appointed my successor. This was because the Minister and Secretary of the Ministry found that it was a useful innovation.

Later the post was divided into two, Additional Secretary Medical Services and Additional Secretary Public Health Services.

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SLMA Relief Fund Account Details

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Bank Branch	Cinnamon Gardens
Bank address	No. 85A & 87, Barnes Place, Colombo 7. Sri Lanka
Account/Beneficiary name	"SLMA Relief Fund"
Full address of account holder	Sri Lanka Medical Association, "Wijerama House", No 6, Wijerama Mawatha, Colombo 07, Sri Lanka
Current account number / Swift/BIC code	076010138305 / HBLILKLX
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