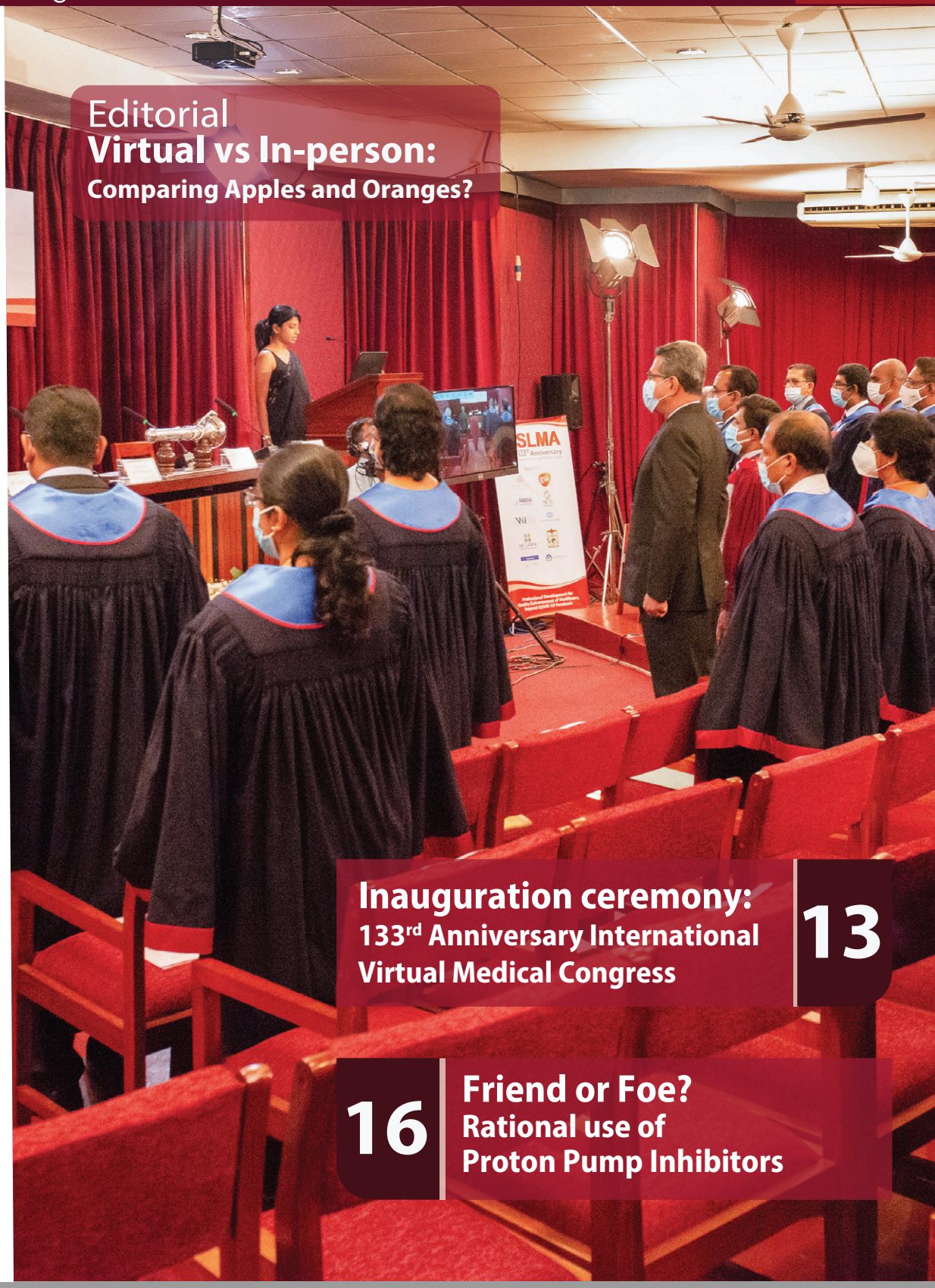
SLMA NEWS+

The eMagazine of the Sri Lanka Medical Association



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Please Adhere to the Following Simple Steps to Prevent COVID-19 in Your Workplace

Wear a mask.

Maintain distance of one meter with everyone.

Wash hands with soap and water or sanitize with a hand sanitizer.

Cover coughs and sneezes with the elbow

Do not allow any person having fever with or without respiratory symptoms to report for work.

Frequently disinfect commonly contacted surfaces by staff or customers.

Avoid exchange of equipment, utensils or any other items between workers. If exchanged disinfect them before and after exchanging.

Avoid sharing personal items between workers. If shared disinfect them before and after sharing.

Ensure good ventilation and use air-conditioning only if necessary.

If your duty involves close contact or touch customers, (Eg. Barber, Tailor) wear an eye shield or a goggle and sanitize hands immediately afterwards.

If your duty involves using instruments that touches customers (Eg. Measuring tape, Comb) disinfect them after use.

For details please refer to the "Operational guidelines on preparedness and response for covid-19 outbreak for work settings" published by the Ministry of Health. Visit health.gov.lk.

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

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IN THIS ISSUE

Editorial
Virtual vs In-person: Comparing Apples and Oranges?

At the beginning of 2020, most of us had no idea of what the year had in store for us; certainly not a world full of chaos and turmoil with a raging global pandemic, unrest due to racial discrimination across the globe, world-wide political instability and economic crises compounded by natural and man-made disasters. At the end of July, halfway through the year, no one seems to know when the world would return to "normal" life as it was before 2020. The general perception seems to be that life may never return to "normal", compelling us to change and adapt to a new way of life; a "new normal". From travelling, to working, to recreation, every aspect of our lives has been transformed.

As doctors, we have physically distanced ourselves from our patients, colleagues and students, shifting more into virtual platforms. The academic sessions of various professional colleges and medical associations which usually fill the latter half of the year and attract hundreds of doctors, have been postponed. Amidst the pandemonium created, the Sri Lanka Medical Association became the first professional medical association in the country to conduct its Annual Academic Congress even under such trying circumstances. This year's congress was primarily a virtual conference with a very limited onsite audience, restricted to presenters and invitees. Greatest care was taken to ensure that all health guidelines and regulations for the prevention of COVID-19 were adhered to during the proceedings. This was undoubtably a novel experience for the organisers as well as the participants. However, as we bask in the glory of our success of conducting the very first international virtual medical conference in Sri Lanka, complete with Pre-Congress Workshops and even a Doctors' Concert, we should also reflect and ask ourselves "what did we truly learn from this novel enterprise?". The obvious answer would be the myriad of knowledge and experience shared among the eminent local and foreign resource persons as well as the participants on timely topics of importance. But, is there more to it? Yes, there seems to be quite a bit more.

For instance, large amounts of money are usually spent on medical conferences to finance food and beverages, the cost of venues and other logistics. Though not cheap, virtual conferences are invariably less costly. This draws our attention to whether we really need to spend such enormous amounts of money for in-person continuous professional development (CPD) events and whether it is being spent wisely. Furthermore, virtual conferences certainly save time and money spent on travelling. As the geographic barriers become irrelevant, we are able to connect with resource persons and speakers who are even thousands of miles away without the constraints of arranging travel and accommodation. This enables us to bring in even more expertise of leading international resource persons to a local audience, which may not have been possible before. Delegates, who otherwise might not have been able to participate due to difficulties in travelling, could now take part from the comfort of their own homes. These virtual events are also scalable as there is no restriction to the number of participants who can be accommodated unlike in a physical venue. Being on a virtual platform allows all proceedings to be easily recorded and disseminated via various mechanisms even after the event. Organisers can also get precise and real time feedback from participants as well. Moreover, being saved from the temptations of a buffet of an extensive spread of unhealthy food is definitely beneficial, at least in the long run.

However, from experience, we now know that virtual conferences are not without problems. They appear deceptively simple to organise, when in reality, they are even more complex and demanding than the traditional in-person attendee conferences. Virtual conferences rely on multiple technologies of multiple users to capture and broadcast as well as participate in the event. But no technology in the world is completely failsafe. Particularly in a country like Sri Lanka, issues due to poor connectivity may interrupt participation. Meticulous prior planning and preparation with contingency plans for technological failures are crucial to successfully conduct such events. Although the cost is significantly less than that of a traditional conference, securing necessary technology and technical support can be rather expensive. This aspect should not be underestimated during the planning process. Securing sponsorships is also a challenge because virtual events are less attractive to sponsors as there is no face-to-face interaction with the attendees.

On the other hand, with no physical presence, the usual exciting atmosphere we see at medical conferences is absent in a virtual conference. This may have deleterious effects on participation. Participants also have to grapple with the various distractions which they may face while attempting to take part from their homes. Therefore, innovative and creative approaches are needed to effectively engage participants and maintain their interest. Virtual conferences offer the convenience of selectively taking part in any sessions of your choice, while engaging in any other activity during other times if you are not interested. However, it takes away the opportunity participants get to "accidentally learn" new things, generate interests and broaden their perspectives by sitting through sessions they may not have been initially keen on like in an in-person attendee conference. Another major drawback of virtual conferences appears to be the lack of face-to-face networking which is imperative in building new partnerships and research collaborations.

Due to the restrictions in travel and enforced physical distancing, CPD opportunities for doctors are likely to be limited to virtual conferences and webinars in the foreseeable future. Several other professional medical colleges and associations in the country are preparing to conduct their annual academic sessions as primarily virtual or hybrid conferences; a definite departure from the usual norm. Change of any sort naturally evokes a debate on what is better. However, in this "new normal" world, we are all learning on the go. Adaptations made are highly contextual. So, can one truly draw a comparison between virtual and in-person events? Would an apple do when an orange is needed?

President's Message

Dear Members of the Sri Lanka Medical Association,

The 133rd Anniversary International Medical Congress of the SLMA has become history in making.

In April 2005, SLMA NEWS, the Newsletter of the Sri Lanka Medical Association carried the Editor's note, "SLMA Sessions Totally Virtual - A Dream or Reality?".

That prediction I made 15 years ago, as the then Editor of the SLMA, has now become a reality. The 133rd Anniversary International Medical Congress of the Sri Lanka Medical Association was held as a virtual on-line conference from 24th to 26th July 2020, and webcast worldwide from the historic Wijerama House in Colombo. The congress, previously known as annual sessions, returned to Wijerama House after 20 years.

The Congress was aptly themed "Professional Development for Quality Enhancement of Healthcare: Beyond the COVID-19 pandemic. It was a complete conference conducted over three days in two parallel venues with all the regular components including the inauguration ceremony keynote address, six guest lectures, eight symposia, two plenaries and culminating with the Doctors' Concert. For the first time in the history of SLMA, the Keynote Address was delivered online. The new additions of "Heath Innovation Awards" and "Meet your doctor"-health education session for general public were immensely popular.

The Inauguration Ceremony was graced by Major General Sanjeewa Munasinghe, Secretary, Ministry of Health and Dr. Dujeepa Samarasekera, Director, Medical Education, National University of Singapore as Guests of Honour. The conference was held at the SLMA Auditorium with a minimum number of participants, adhering to physical distancing measures. However, over 400 participants joined the conference on Zoom. This included a significant number of international participants. The virtual congress has already ready over 50000 viewers and proceedings are watch by 1000s and counting.

Moving a step further, all the lectures, oral presentations and poster presentations were digitized and disseminated and preserved via YouTube and social media to be used as learning material for the future. Unlike in a conventional conference, this event has contributed towards developing e-learning material to be used in the future.

The 133rd Anniversary International Virtual Medical Conference of the SLMA was a unique blend of tradition and technology in the era of new normal. Combining the best of real-life and virtual. It was not an easy journey with obstacles and challenges beyond imagination. Still, the outcome is worth the effort.

Professor Indika Karunathilake
President, Sri Lanka Medical Association

Pre-Congress Workshop – 1

Microplastics in Sri Lanka and Human Health

The virtual Pre-Congress Workshop on Microplastics in Sri Lanka and Human Health was held on 10th July 2020. It targeted both medical professionals and the general public and included resource persons from academia, national authorities, as well as the corporate sector. The speakers were Dr. H. M. P. Kithsiri, Deputy Director General - Research and Development, National Aquatic Resources Research & Development Agency, Mr. N. S. Gamage, Director (Investigations), Central Environmental Authority, Dr. M.F.M. Fairoz, Dean, Faculty of Fisheries of Ocean Science, Ocean University of Sri Lanka, Mattakkuliya, Dr. Madura M. Wehella, Additional Secretary, Planning & Performance Review, Ministry of Education, Professor Mahesh Jayaweera, Department of Civil Engineering University of Moratuwa and Mr. Ranil Vitharana, Chief Innovation Officer, MAS Holdings. The session was chaired by Professor Indika Karunathilake, President SLMA and Dr. Sajith Edirisinghe, Assistant Secretary of the SLMA.

It was aimed at providing a better understanding about the presence of microplastics in various elements in the environment, the legal framework of management of plastics and polythene in the country, technical aspects of separation of microplastics from water and prevention of environmental pollution by plastics and its health consequences were also discussed. The need to establish a joint task force to manage these issues with representation from all stakeholder groups was also highlighted at the workshop.

The full presentation is available at https://www.youtube.com/watch?v=83nz2HySe-g

Pre-Congress Workshop – 2

Deans' Round Table: the Future of Medical Education

Dr. Sajith Edirisinghe, Assistant Secretary SLMA

A Virtual Pre-Congress workshop titled "Deans' Round Table: the Future of Medicine Education" was held on 12th July 2020, 12.00 noon to 02.00 pm. The speakers included all Deans of the state medical faculties in Sri Lanka, namely Professor Vidya Jyothi Vajira H.W. Dissanayake (Colombo), Professor Surangi Yasawardena (Sri Jayawardenepura), Professor Asiri Abegunawardena (Peradeniya), Professor P. S. Wijesinghe (Kelaniya), Dr. Angela Arulpragasam Anthony (Eastern University) Dr S. Raviraj (Jaffna), Dr Sanjeewa Bowatte (Wayamba), Dr. Senaka Pilapitiya (Rajarata), Gp. Cpt. (Dr) R.A.N.K. Wijesinghe (KDU) and Professor Nirmali Wickramaratne (Sabaragamuwa). Professor Vasanthy Arasaratnam, Standing Committee on Medical and Dental Sciences and Professor K. D. Pathirana, Professor in Medicine, Faculty of Medicine, University of Ruhuna were also among the speakers. This workshop was chaired by Professor Indika Karunathilake and Dr. Sajith Edirisinghe.

According to the guidance given by the University Grants Commission (UGC), all the medical faculties in Sri Lanka have now commenced online teaching learning activities. The commonly used digital teaching modalities are lectures and tutorials conducted via Zoom through the Learn network, voice recorded PowerPoint presentations and video recorded practicals. According to expert opinion, up to 50-60 % of the teaching-learning activities could be conducted online. The inputs on ethics, empathy and humanities should be taught through face to face activities. Until now, only the assessments have been kept "off-line" with examinations requiring students to be physically present in person. The experts are looking for solutions and evaluating the possibilities of open book tests and holding examinations via online methods as well. The challenges faced by local medical faculties in adapting to this "new normal" and the way forward was discussed during this workshop.

For the full presentation, please log on to https://www.youtube.com/watch?v=D6pm0PmdxcY

Pre-Congress Workshop – 4

Recognition of Medical Qualifications Beyond 2023

Professor Kosala Marambe, Professor in Medical Education, Department of Medical Education, Faculty of Medicine, University of Peradeniya

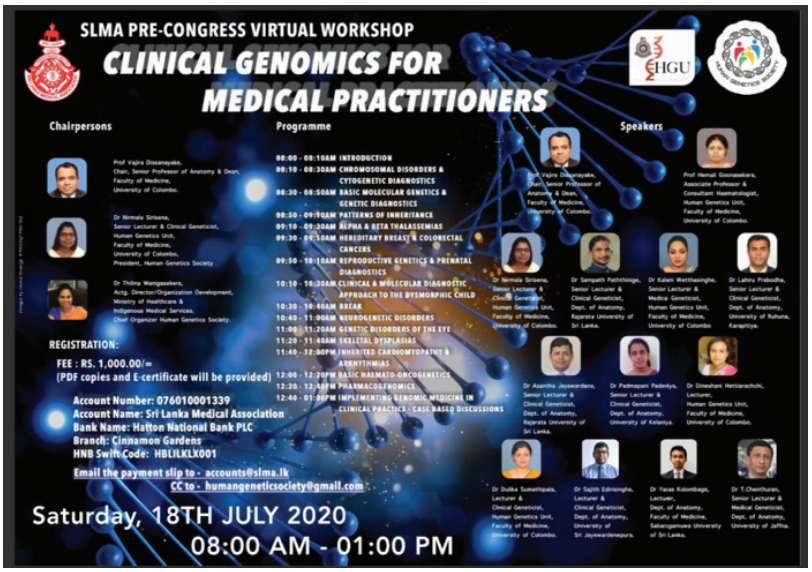
A virtual Pre-Congress Workshop on "Recognition of Medical Qualifications Beyond 2023" was held on 17th July, 2020 with the participation of a panel of eminent resource persons including Dr. Thomas Zapata (WHO,SEARO Advisor, Human Resources for Health), Dr. Palitha Abeykoon (WHO expert in Medical Education and Human Resources for Health), Dr. Dujeepa Samarasekera (Executive Committee Member, World Federation for Medical Education, National University of Singapore and Dr. Ananda Hapugoda, theRegistrar, Sri Lanka Medical Council. It was chaired by Professor Nilanthi de Silva (Director Quality Assurance Council of the University Grants Commission and Vice President SLMC. The moderator was Dr. Asela Olupeliyawa, the Honorary Treasurer, SLMA and Senior Lecturer in Medical Education, Faculty of Medicine, University of Colombo.

The objective of this workshop was to discuss the background, implications and the way forward with regard to accreditation of medical schools being made a mandatory requirement for international recognition by 2023. The presentations dealt with a myriad of different aspects of the initiatives for universal recognition of medical degrees and the implications of the said ventures for Sri Lanka. Important considerations such as the quality of graduates produced by the medical schools, the local perspectives, tailoring of training to local needs, recognition and accreditation, the role of the Sri Lanka Medical Council and the legal framework required to implement the required considerations of the WFME.

The full presentation of the workshop is available from https://www.youtube.com/watch?v=rbzf3nPs6gU

SLMA PRE-CONGRESS VIRTUAL WORKSHOP ON CLINICAL GENOMICS FOR MEDICAL PRACTITIONERS

Compiled by: Dr. Nirmala D. Sirisena, President, Human Genetics Society



The Pre-Congress Virtual Workshop on Clinical Genomics for Medical Practitioners jointly organized by the Sri Lanka Medical Association and the Human Genetics Society in collaboration with the Human Genetics Unit, Faculty of Medicine, University of Colombo was held on Saturday, 18th July 2020. The half-day workshop was co-chaired by Prof. Vajira H. W. Dissanayake, Chair, Senior Professor of Anatomy and Dean, Faculty of Medicine, University of Colombo, Dr. Nirmala D. Sirisena, Senior Lecturer and Clinical Geneticist, Human Genetics Unit, Faculty of Medicine, University of Colombo and Dr. Thilina Wanigasekera, Actg. Director/ Organization Development, Ministry of Healthcare & Indigenous Medical Services. The resource persons included Clinical and Medical Geneticists serving as University academics across the breadth of the country. They included: Prof. Vajira H. W. Dissanayake (Colombo), Prof. Hemali Goonasekera (Colombo), Dr. Nirmala D. Sirisena (Colombo), Dr. Kalum Wetthasinghe (Colombo), Dr. Dineshani Hettiarachchi (Colombo), Dr. Dulika Sumathipala (Colombo), Dr. Sajith Edirisinghe (Sri Jayewardenepura), Dr. Sampath Paththinige (Rajarata), Dr. Asantha Jayawardana (Rajarata), Dr. Lahiru Prabodha (Ruhuna), Dr. Padmapani Padeniya (Kelaniya), Dr. Thurayratnam Chenthuran (Jaffna) and Dr. Yasas Kolombage (Sabaragamuwa).

The workshop was held with the aim to develop a basic understanding and knowledge of the core concepts in medical genetics and genomics and their clinical applications in medicine and healthcare among medical practitioners. It was well attended by health professionals from various clinical specialties across the country. The programme included both lectures and interactive case-based discussions using clinical scenarios to illustrate the clinical applications of genetics & genomics data in clinical practice. It served as a valuable platform for healthcare professionals to update their knowledge on the applications of genomic medicine in the clinical setting. It is planned to conduct similar training programmes on a regular basis in conjunction with other relevant professional Colleges and Associations with the aim of improving the genomic literacy of the healthcare workforce in the country.

Pre-Congress Workshop – 6

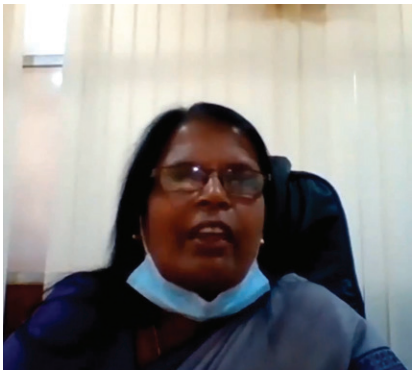
Preventing the Next Pandemic: One Health Approach

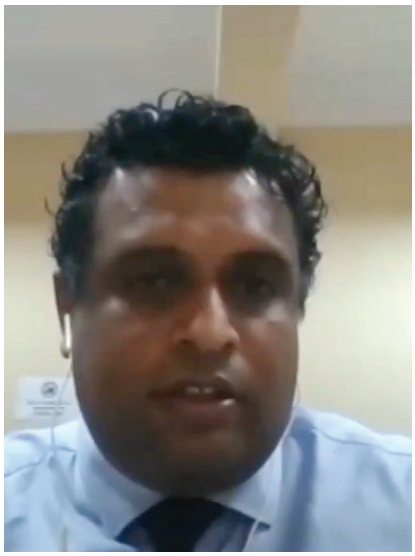
This virtual Pre-Congress Workshop was organised by the Sri Lanka Medical Association (SLMA) in collaboration with the Sri Lanka Veterinary Association (SLVA) on the 20th July 2020.It was moderated by Professor Indika Karunathilake, President - SLMA, Dr. D.D.N. de Silva, President - SLVA, Professor Saroj Jayasinghe, Senior Professor and Chair of Medicine, Faculty of Medicine, Colombo and Dr Tharanga Thoradeniya, Assistant Secretary - SLVA.

Several renowned local and foreign resource persons shared their experience, knowledge and ideas during this virtual workshop attended by over 75 participants. Among the speakers were Professor Malik Peiris, Chair Professor, Department of Microbiology, University of Hong Kong, Professor N.P Sunil-Chandra, Senior Professor and Chair of Medical Microbiology, University of Kelaniya, Dr. B.M.A. Oswin Perera, Visiting Professor, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, Dr. Ravi Bandara Dissanayake, Veterinary Epidemiologist, Food and Agriculture Organization of the United Nations, Dr. Tikiri Priyantha Wijayathilaka, AMR Technical Officer - World Organization for Animal Health, Sub-Regional Representation for South East Asia, Thailand and Dr. Dilan Amila Satharasinghe, Senior Lecturer, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya.

This workshop which was aimed at all medical professionals as well as the general public focused on control and prevention methods of contagious diseases including COVID-19. Bringing together experts from the fields of medicine and veterinary sciences to control epidemics such as COVID-19 was highlighted as many microbes infect both humans and animals and they share the eco-systems they live in. There was emphasis on the 'One Health' approach to establish multi-sectoral collaborations to accomplish better public health outcomes.

The full presentation is available from https://www.youtube.com/watch?v=r_9u4oXClu4





Pre-Congress Workshop – 7

2020 – International Year of the Nurse & the Midwife: Health Workforce Development beyond COVID-19 Pandemic

This virtual pre-congress workshop, webcast on 22nd July 2020, was jointly organized by the Family Health Bureau, the Education, Training and Research Unit, Ministry of Health and the World Health Organization, in collaboration with the SLMA. The target audience for this workshop were all doctors, nurses, medical students and other allied healthcare workers. The speakers included Dr Anoma Jayathilaka, MO - Maternal and Reproductive Health, WHO/ SEARO, Dr Chitramalee de Silva, Director - Maternal and Child Health, Ministry of Health, Mrs. Asoka Abeynayake, Director / Nursing, Dr Sudath Samaraweera, Deputy Director General/Education, Training and Research, and Ms. Chathuri Wimalanaga, Manager, Human Resources, Asiri Hospital Holdings PLC. The moderator was Dr. Sajith Edirisinghe, Assistant Secretary, SLMA.

The workshop created an ideal platform to share experience on sustaining essential maternal and child health services during the COVID-19 outbreak in Sri Lanka and worldwide. The importance of capacity development among health workers with an especial focus on nurses and midwives to commemorate the International year of Nurses and midwives was also highlighted during the session.

For the full presentation, please log on to https://www.youtube.com/watch?v=ZjfEcwZDlxc

Pre-Congress Workshop – 8

Practical infection Prevention and Control Considerations in the Fight against COVID-19

A virtual pre-congress workshop on "Practical infection Prevention and Control Considerations in the Fight against COVID-19" was jointly organised by the Sri Lanka College of Microbiologists, the Directorate of Healthcare Quality and Safety of the Ministry of Health and the World Health Organization in collaboration with the SLMA and webcast on 23rd July 2020. The on-line participants included doctors, nurses, medical undergraduates and nursing students.

The resource persons were April Baller, WHO Health Emergencies, Geneva, Switzerland, Dr. Madhumanee Abeywardena, Consultant Microbiologist, Dr. Vaithehi Rajeevan Francis, Consultant Microbiologist and Dr. Sudath Dharmaratne, Director, Directorate of Healthcare Quality and Safety and WHO Country office. The session was moderated by Dr. Shirani Chandrasiri, President, Sri Lanka College of Microbiologists and Professor Indika Karunathilake, President, SLMA. Timely topics such as COVID-19 infection among healthcare workers, rations use of personal protective equipment, environmental and surface disinfection and training of healthcare workers were discussed during the programme.

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Inauguration Ceremony

133rd Anniversary International Virtual Medical Congress of the Sri Lanka Medical Association

Dr. Nimani de Lanerolle, Assistant Secretary SLMA

The 133rd International Medical Congress of the Sri Lanka Medical Association aptly themed "Professional Development for Quality Enhancement of Healthcare: Beyond the COVID-19 Pandemic" was held from the 24th to the 26th of July 2020 at the Wijerama House, Colombo 07

The congress returned to the Wijerama house after a period of 15 years due to the COVID-19 pandemic which wrought many changes to the normal procedures and processes. Under the able guidance of the President of the SLMA Professor Indika Karunathilake the many challenges brought on by the pandemic were overcome and a phenomenally successful "International virtual congress" was held.

The Congress commenced with the Inauguration Ceremony which was held on the 24th of July, 2020. Onsite participation was limited to the Council of the SLMA and a few invitees. It was webcast live and watched by over 500 participants online. The gathering was addressed by the guests of honor Major General Dr. Sanjeewa Munasinghe, Secretary Ministry of Health and Dr. Dujeepa Samarasinghe, Chair, Faculty Teaching Excellence Committee, School of Medicine, National University of Singapore, who joined via an online platform from Singapore. A highlight of the evening was launching of the SLMA CPD portal and the Health Educational Material. The evening concluded with the delivery of the SLMA oration by Professor Sachith Mettananda.

For the full video of the Inauguration ceremony, please go to https://www.youtube.com/watch?v=kA7wtj3QPEo&t=1s

The Congress which spanned over the next two days included several orations, guest lectures, plenaries and research presentations in the form of both oral and poster presentations. The Doctors Concert added colour to the event and the Health Innovation Awards were a new addition. More details of these events will follow in the August issue of SLMA NEWS.


Sri Lanka Medical Association


Sri Lanka Medical Association
133rd Anniversary
International Virtual Medical Congress
Professional Development for Quality Enhancement of Healthcare, beyond COVID-19 Pandemic
World Health Organization
THE WORLD BANK


Sri Lanka Medical Association
133rd Anniversary
THE WORLD BANK

Friend or foe? Rational use of proton pump inhibitors

Dr. Isurujith K Liyanage
Consultant Gastroenterologist and Lecturer, Faculty of Medical Sciences, University of Sri Jayawardenapura

Proton pump inhibitors (PPIs) are some of the most widely prescribed medicines throughout the world. In Sri Lanka, PPIs are commonly used in general practice and in almost every speciality of medicine. Although these are 'prescription-only' medicines, many individuals buy these over the counter from pharmacies, self-medicate or inappropriately continue taking them using the same prescription. This brief overview aims to discuss the rational use of PPIs and address some common misconceptions.

Do PPIs act directly on the gastricmucosa after oral administration?

No. Proton pump blockers are pro-drugs. They have a gastric coating that prevents activation in the stomach and are absorbed from the small intestine. Once absorbed into the systemic circulation, PPIs are secreted into the canaliculi of the gastric parietal cells where they are activated by the acidic environment. The activated drug binds covalently to irreversibly block the proton pumps (H+, K+-ATPase) that are present in the luminal surface of the parietal cells.

What is the best time to administer PPIs?

In fasting states, the H+, K+-ATPase pump is located intra-cellularly in gastric parietal cells. These migrate to the luminal membrane after a meal. PPIs act on the H+, K+-ATPase pumps located in the luminal membrane. When in blood, PPIs have a short half-life (less than 3 hours for most products). Therefore, it is important to time oral administration to reach peak plasma concentrations to coincide with migration of intracellular proton pumps to the luminal membrane (e.g. half an hour prior to a meal).

As the most amount of proton pumps is expressed in the luminal membrane following a meal after a prolonged fast, the best time to administer PPIs is before the first meal of the day. Once daily administration suffices in most indications. However, if twice daily administration is desired, the second dosing should be before the evening meal. It is important to note that food significantly reduces oral bioavailability. Once daily administration suffices in most indications. However, if twice daily administration is desired, the second dosing should be before the evening meal. It is important to note that food significantly reduces oral bioavailability.

"As the most amount of proton pumps is expressed in the luminal membrane following a meal after a prolonged fast, the best time to administer PPIs is before the first meal of the day"

When should PPIs be used?

The indications for prescription of PPIs are given in table 1. In most instances PPIs can be prescribed as once daily dosing, taken in the morning. In special circumstances, twice daily dosing may be used. Routine co-prescription with H2 receptor blockers does not provide an added benefit. However, an H2-receptor blocker may be co-prescribed, especially at night, to reduce basal acid secretion in patients with reflux or predominant nocturnal symptoms.

Table 2 lists instances where the routine use of PPIs is not recommended.

Routine co-prescription with H2 receptor blockers does not provide an added benefit. However, an H2-receptor blocker may be co-prescribed, especially at night, to reduce basal acid secretion in patients with reflux or predominant nocturnal symptoms.

Can we use PPIs on an "as needed" basis?

As PPIs only inhibit the proton pumps present in the canalicular membrane, the remaining intracellular pumps can displace to the membrane and exert their action with the next meal. Due to the irreversible nature of its action, acid suppression reaches optimal levels over a few days. Hence, acid suppression after a single dose is suboptimal and when used occasionally in "as needed" use, PPIs may not provide the desired clinical response. Therefore, occasional administration of PPIs is not recommended. desired, the second dosing should be before the evening meal. It is important to note that food significantly reduces oral bioavailability.

Table 1: Indications for use of PPIs

NSAID use with high risk of GI complications ● Aged over 65 years ● Previous peptic ulcers/bleeding/perforation ● Co-prescription of aspirin (even low-dose), anticoagulants, corticosteroids and antidepressants (SSRIs, venlafaxine or duloxetine) ● Serious comorbidities, such as cardiovascular disease, hepatic or renal impairment (including dehydration), diabetes or hypertension ● Using the maximum recommended dose of an NSAID ● Prolonged NSAID use (including people with osteoarthritis or rheumatoid arthritis of any age, and those with chronic low back pain aged ≥ 45 years)
Anti-platelet therapy in high risk patients ● Age > 65 years ● Concomitant use of corticosteroids or anticoagulants ● History of peptic ulcer disease
In specialist settings ● Barrett's oesophagus ● Advanced erosive oesophagitis ● PPI-responsive oesophageal eosinophilia ● Idiopathic peptic ulcer disease ● PPI-responsive gastro-oesophageal reflux disease, etc.

Table 2: Instances where routine use of PPIs is not recommended

● Corticosteroid use without NSAIDs or high risk for GI complications ● Isolated gastropathy in cirrhotic patients ● Acute pancreatitis ● Stress ulcer prevention in hospital if not critically or at high-risk for ulcers/GI bleeding

Which PPI is better?

There is no evidence on clinical superiority of one PPI over the other. In Sri Lanka, omeprazole, pantoprazole, esomeprazole, lansoprazole and rabeprazole are commonly used. These compounds slightly differ in oral bioavailability and the pH at which the maximum activation is reached. However, with equi-potent dosing there is no clinically confirmed difference between these compounds for most indications. The quality of gastric coating may be a consideration in the real world.

Can PPIs be made into a liquid suspension for tube feeding or for patients with swallowing difficulty?

Yes. However, tablet formulations should not be crushed. Contents of capsules with granules with a gastric coating can be suspended, ideally in an acidic liquid (e.g. orange juice). Commercially produced oral suspensions of PPIs are not widely available in Sri Lanka.

"However, tablet formulations should not be crushed. Contents of capsules with granules with a gastric coating can be suspended, ideally in an acidic liquid (e.g. orange juice)."

What is the duration of treatment?

Usually 28 days of treatment is recommended for peptic ulcer healing. A longer duration of therapy is needed in patients with a past history of gastrointestinal bleeding with an on-going risk factor (e.g. on a drug that increases the risk of bleeding), gastro-oesophageal reflux disease, Barrett's disease or Zollinger Ellison syndrome.

Are PPIs safe to co-administer with other medications?

PPIs are relatively safe and serious interactions are rare. However, as an extensively prescribed drug, it is important to be aware of its interactions with other commonly prescribed drugs. PPIs are metabolised by the hepatic cytochrome P450 enzymes and omeprazole and esomeprazole inhibit a specific hepatic cytochrome enzyme resulting in some important drug interactions. These two agents inhibit the activation of clopidogrel and clearance of agents such as diazepam, citalopram, warfarin and phenytoin. Pantoprazole and lansoprazole cause less inhibition of hepatic cytochrome enzymes. Many expert bodies advise that PPIs should be used only if absolutely indicated in patients on clopidogrel. If a PPI is indicated in such patients (see table 1), lansoprazole and pantoprazole should be used.

"Many expert bodies advise that PPIs should be used only if absolutely indicated in patients on clopidogrel. If a PPI is indicated in such patients (see table 1), lansoprazole and pantoprazole should be used".

How safe are PPIs?

PPIs have a relatively high safety record. There were concerns regarding prolonged use of these agents in the past, but the majority of long-term studies have failed to establish serious adverse effects. Nevertheless, PPIs should be given in the smallest possible effective dose for the shortest possible duration. PPIs increase the risk of gastrointestinal infections including those caused by Clostridia by reducing the protection offered by low gastric pH. PPIs also increase reflux episodes and gastric colonisation, thereby increasing the risk of aspiration pneumonia in patients in intensive care. Much rarer complications include interstitial nephritis and drug-induced-lupus.

Long term therapy is associated with a slightly increased risk of osteoporosis and vitamin B12 deficiency. PPIs increase atrophic gastritis and gastric fundic gland polyps but does not increase the risk of cancer. They should be used cautiously in the elderly and there is some evidence of increased risk of hyponatraemia and community acquired pneumonia

Impact of Telemedicine as a digital health service during and after COVID-19

Dr. Gumindu Garuka Kulatunga
Commonwealth Digital Health Fellow, Clinical Informatics Research Unit, University of Southampton, United Kingdom.

The COVID-19 pandemic spread throughout the world, affecting millions of people including healthcare staff, leading to challenges in continuous healthcare delivery. Some of the response strategies for control of the disease included screening, early diagnosis, patient isolation, management and follow-up of symptomatic persons, monitoring of contacts and public health quarantine measures. Implementation of these strategies needs large-scale human resources as well as huge infrastructure facilities which may not be available at the time of a pandemic. Another major negative effect of the pandemic on health was its indirect adverse impact on the management of non COVID diseases, as many curative and preventive health programmes were interrupted. However, digital health innovations were rapidly implemented and scaled up to provide solutions for the management of COVID-19 as well as the management and follow-up of non-COVID diseases adversely affected (1). Digital techniques were used for disease surveillance, patient screening, triage of admissions, diagnosis, monitoring, contact tracing, patient follow-up, supply chain management, staff training as well as research reducing the burden for the exhausted healthcare staff.

Image : https://patientportal.tattvan.com/post/what-to-expect-from-telemedicine-in-2020/22
(Photo description – Demonstration of Digital Apps use by a doctor for healthcare delivery)

What is Digital Health?

The World Health Organization (WHO) defines 'eHealth' as the use of internet and other information and communication technologies (ICT) for health-related activities. However, the term 'Digital Health' is used frequently and it describes 'digital technologies in health' as well as for devices that process and use 'digital' information to achieve Health (2).

'eHealth' as the use of internet and other information and communication technologies (ICT) for health-related activities.

Main examples of digital health applications for patient management include the use of Telemedicine to deliver healthcare to homes without physical contact, production of medical equipment through 3-D printing, using smartphones for follow-up as well as contact tracing, virtual reality programmes to train healthcare staff, use of Artificial Intelligence (AI) to detect outbreaks and enhance radiological diagnosis. However, this article focuses only on the main component of Telehealth/Telemedicine as it has drawn much attention among Sri Lankan medical practitioners during the lockdown period.

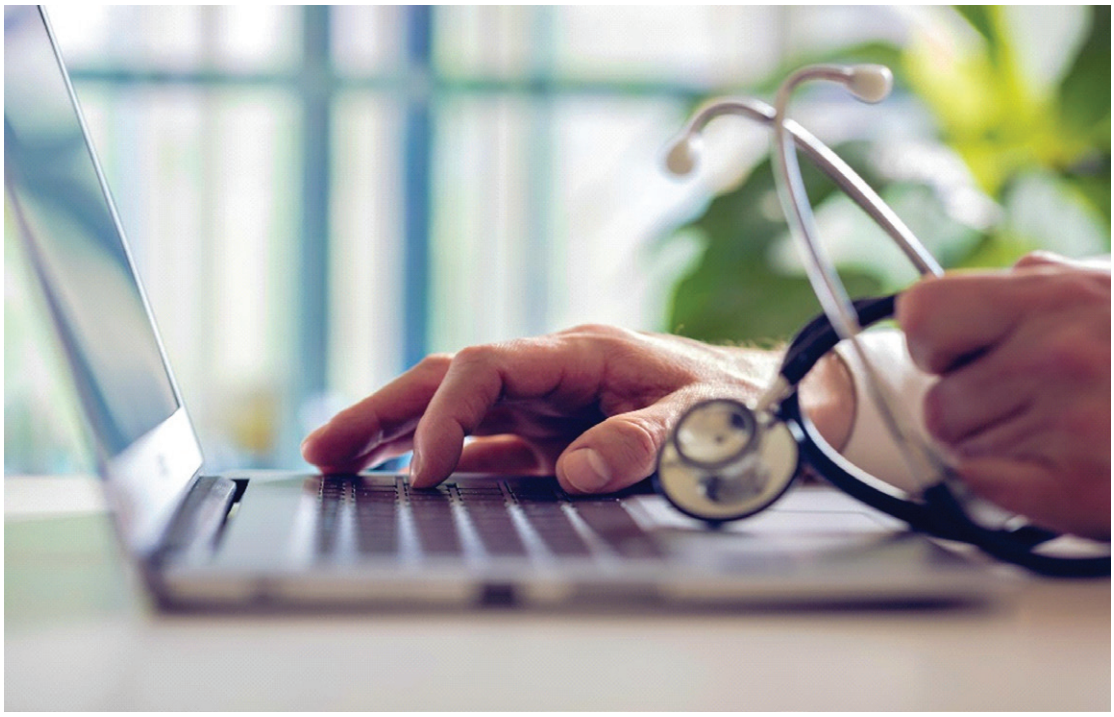

Image : https://news.virginia.edu/content/telemedicine-tools-developed-ebola-improving-covid-19-care-uva-health (Photo description - Demonstration of a doctor providing healthcare services via computer/internet)

Terminology in Digital health including Telehealth and Telemedicine

The terms, " Telehealth" and "Telemedicine", have been commonly used in media as well as in scientific papers to refer to methods to deliver healthcare at a distance. Although the two terms have been used interchangeably in the last few decades (3) they have different connotations. Telehealth can be described as the delivery of healthcare at a distance using telecommunication technologies (4). Common technologies that transfer information electronically include telephone, fax, radio, internet, video conferencing and satellite-based communications.

Telehealth -'the process of exchanging medical information from one site to another via electronic communications to improve a patient's clinical health status'

Telehealth includes both curative and preventive aspects of healthcare delivery. Telemedicine, on the other hand, is the curative or the clinical part of Telehealth (5) and it is described by the American Medical Association as 'the process of exchanging medical information from one site to another via electronic communications to improve a patient's clinical health status'. Clinical information transferred can be in the format of data/texts, still images, audio tracts or videos. Devices used can be wireless mobile devices, smartphones, robots, computers, and even drones. Further, an internet-based prescription can be explained as a patient receiving an electronic or softcopy version of a prescription through the internet instead of a printed or a handwritten prescription following a Telemedicine consultation.

" Telehealth can be described as the delivery of healthcare at a distance using telecommunication technologies"

Modes of applications related to Telemedicine/Telehealth can be divided into four types

Domain Name	Description
1.Synchronous live video conferencing	Real-time two-way patient-physician interaction
2.Asynchronous or store-and-forward	Physician and patient are not connected live, but the patient will receive a recorded answer later
3.Remote patient monitoring	Patient's clinical data is transmitted to a physician who is far away for clinical decision making
4.Mobile health/mHealth	Healthcare-related messages transmitted to patient's mobile devices

The inter-relationship between eHealth, Telehealth, Telemedicine and its domains are demonstrated in the figure below (Figure 1).

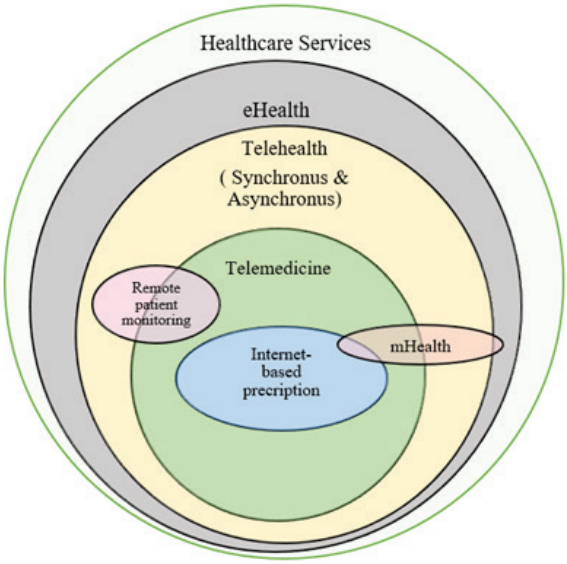

Figure 1: Inter-relationship between eHealth, Telehealth, Telemedicine

History of Telemedicine and Telehealth

The prefix "Tele" was first used in a medical context in 1905 when a Dutch physician reported about the telephonic transmission of electrocardiographic images and called it a "Tele-cardiogram" (6). Then in 1910, the telephone was used to transmit amplified sounds from a stethoscope using telecommunication networks. However, the term "Telemedicine" was introduced to the world in 1969 to describe the delivery of medical care without the usual patient- physician face to face consultation (7). Later the word "Telehealth" was used in 1978 to broaden the scope of Telemedicine with the incorporation of patient/clinician education (8). The concept of internet-based prescription gained much momentum since 1998 when Dr. Schiff and Dr. Rucker wrote in the American Medical News: "Physicians should never again write a prescription. Given the explosion of scientific information and advances in computer technology, prescribing medications on a blank piece of paper will soon seem as antiquated as ordering tinctures of botanicals in Latin" (9). The term Telemedicine will be used throughout this article as it concentrates mainly on clinical care.

" the term "Telemedicine" was introduced to the world in 1969 "

Use of Telemedicine for COVID-19

Telemedicine services can help COVID-19 management in many ways by including screening high-risk groups to identify potential cases, assisting in the provision of in-ward patient care, remotely following up people on self-quarantine and patients discharged from hospitals. Telemedicine systems can also be used to prevent overcrowding of emergency departments in healthcare institutions. Also, the use of Telemedicine would reduce human to human exposures and protect healthcare workers as well as the patients from a wide range of infectious diseases and ensure that essential human and other medical resources are reserved for patients who need them the most. Further, Telemedicine can be used for the follow-up of patients with chronic disorders such as diabetes or heart diseases who are at high risk of COVID-19 related complications by reducing in-person clinic visits.

Using the lessons learnt – role of Telemedicine in post COVID era

Telemedicine becomes essential in two instances. The first instance is when there is no alternative other than Telemedicine for the management of medical emergencies in remote environments such as ships, aeroplanes or rural communities. The second instance is when Telemedicine is better than existing conventional services in the delivery of healthcare.

Even in developed countries with a higher number of clinicians, health institutes and other abundant healthcare resources; Telemedicine can play a major role in reaching the underserved sections of the population.

There are many known advantages for the patient as well as the health professional in using Telemedicine:

Advantages for the patient:

- Patient convenience
- Saves time and money by reducing travel
- Broader access to specialists
- Reduce hospital admissions
- Reduce the risk of getting hospital-acquired infections
- Compensate health staff deficiencies in rural areas

Advantages for the healthcare professional:

- Increased flexibility for physicians
- Ability to do consultations from a convenient place and time
- Ability to get support from specialists elsewhere
- Make patient follow-up easier
- Expand service coverage area

Image : Courtesy Alamy stock photo Photo description : Demonstration of ability get medication through internet without going physically to the doctor.

Disadvantages of Telemedicine

As in the case of other new technological innovations, many limitations, as well as potential risks, will emerge with the widespread use of Telemedicine. The decision of treating online or referring to the nearest hospital for the physical examination will depend on consulting Telemedicine physician's personal decision. Inability to observe closely and examine the patient is a disadvantage, especially in paediatric care. Absence of physical touch can be a negative factor for some doctor-patient relationships in long term followed up patients in a non-pandemic period. Also, there can be issues on, non-genuine doctor-patient relationship, unacceptable standard of care, poor control of prescription of controlled medications, deficient service reimbursement policies, risks in cybersecurity/privacy protection, risks of prescribing by a physician living outside patient's country or without the license (10). Further, there is a risk of "doctor shopping" where customers needing prescription

drugs for illegal usage will target doctors who prescribe drugs without proper screening. These problems can be prevented by appropriate legislation and supervision. Many countries have modified their medical acts to keep up with the rapidly expanding technologies including Telemedicine.

"Many countries have modified their medical acts to keep up with the rapidly expanding technologies including Telemedicine."

What Sri Lanka needs to do for Telemedicine

In order to streamline services, increase access and improve the use of Telemedicine in Sri Lanka, a National guideline on Telemedical consultations needs to be developed based on a framework approved by multisector specialities. It should include; code of conduct in Telemedicine for healthcare professionals, features of approved Telemedicine coordinating institutes, a method to select appropriate technologies to deliver healthcare distantly and safe methods to deliver drugs for an internet-based prescription. Telemedicine related educational content should be included in undergraduate and postgraduate medical degree programmes to update the health professionals' relevant knowledge, attitude and skills. The general public needs to be empowered with the correct knowledge on how to use digital health tools including Telemedicine to improve their health status.

The future of digital health in Sri Lanka and the rest of the world

Sri Lanka is looking to the future with optimism. With the availability of advanced information and communication technology, Sri Lanka's healthcare industry is experiencing rapid modernization. Digital health will have much to offer in the preventive as well as curative sectors of the healthcare systems of Sri Lanka in the coming decade.

Future of Medicine will consist of many changes which are the result of the current digital health boost. Governments will use digital technologies and Artificial Intelligence for policymaking. People, as well as politicians, will have to listen to scientists to take decisions. Telemedicine will become the normal way of primary care and remote monitoring and tracking of patients will be done while they are at "smart homes" equipped with internet of things (ioT). The health services will be planned according to patient needs. Medications will be directly delivered to clients by drones. Health data will be interoperable and shared across institutes as well as countries under secured trustworthy platforms. Surgeries will be performed on patients using robotics, by a surgeon continents away. New medications, vaccines and medical investigations will be innovated through nanotechnology and biotechnology. Biological 3D printing will be used to produce human soft tissue as well as organs. Personalized medicine will be available through gene sequencing and pharmacogenomics. New medical specialities including Health Informatics will emerge in the health domain to implement and coordinate above mentioned digital health innovations keeping up with all fundamental medical responsibilities.

COVID-19 has revealed the enormous potential of Telemedicine and other digital health interventions in uplifting the health status in any country. It is the duty of every health professional to explore all avenues of using Telemedicine and other digital health tools in their respective fields to improve the quality of health care delivery.

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New Date for
The Career Guidance Seminar 2020
By the Sri Lanka Medical Association

Due to the current circumstances brought on by COVID – 19 we are compelled to **postpone** the Career Guidance Seminar to

Sunday 30th August 2020 from 8.00 am – 1.30 pm.

Please note that the seminar will be conducted at the Lionel Memorial Auditorium, No. 6, Wijerama Mawatha, Colombo 7 (Wijerama House) in the presence of participants **physically**.

We regret any inconvenience caused due to this unavoidable postponement of the event.

IMPORTANT NOTICE

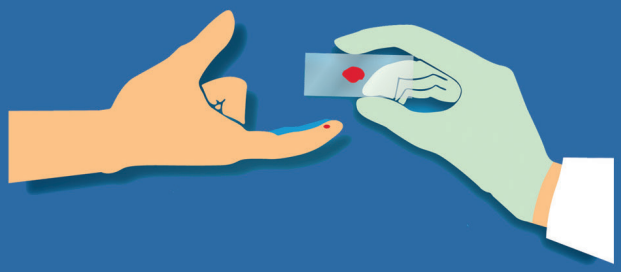
Any member of the SLMA who considers himself/herself suitable to guide the SLMA in the year 2022 as President is kindly requested to contact the SLMA Office to obtain the application for President Elect 2021. The applications should reach the honorary secretary on or before 30th September 2020.

A Message from the Editor-in-Chief

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

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

Dr. Chiranthi K. Liyanage



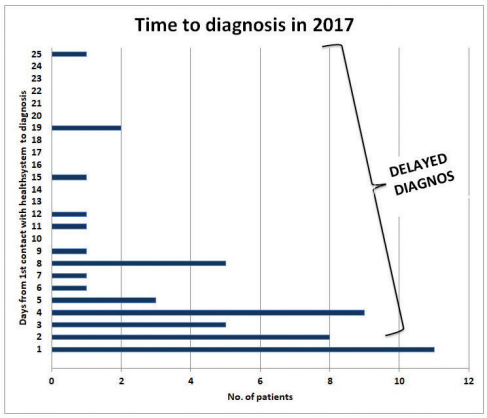
Reduce the Delay in diagnosing imported Malaria

Every single day that a malaria patient is left untreated,

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

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

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



Your role:

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

Anti Malaria Campaign Headquarters
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A device to inactivate SARS-COV-2 on paper surfaces

Dr. Thusitha Kahaduwa, Medical Officer in Palliative care, National Cancer Control Programme

Amidst the COVID-19 crisis, I was contacted by the Assistant Commissioner of motor traffic from the Department of Motor Traffic (DMT-RMV) in the mid-April regarding their need to reopen the department for public and the concerns regarding the possibility of spread of COVID-19 from the documents submitted by the public. During an ordinary working day, the RMV receives about 3000 documents for new vehicle registrations, all have been handled by various individuals and have gone through many procedures. My first question to the official was "Why do you want hard copies? Just go for a non-paper-based solution". However, he explained that the hard copied are a must because of the possibility of forging the documents and their employees may find it difficult to identify a forged e-signature. The commissioner was under enormous pressure from the government to re-open the RMV and from the employees' union was highly concerned regarding the possibility of contracting the infection by handling documents. Although the risk of transmission from fomites like paper surfaces is considered low now, very little research-based evidence on it was available at the time.

Document sterilization with alcohol or Ultraviolet light was not applicable in this situation because of the cumbersome and time-consuming nature of these procedures.

My solution to their problem was heat inactivation. I gave the following specifications and an industrial design of a device that will create the necessary temperature and adequate airflow between documents.

1. The device should be capable of heating the documents up to 70 Celsius and maintain that temperature for 15 minutes as many researches have suggested that the corona family of viruses are destroyed when exposed to temperatures of 56 - 70 Celsius for 15 minues [1-4].

2. Documents must be loaded and kept physically separate from each other. The number of documents and the dimensions of the chamber to be decided during construction in consultation with the RMV.

3. Easily loadable and removable trays for transportation of the documents.

4. Good air flow inside the heat chamber.

5. The risk of heat burns and electrical shock from the device surface should be eliminated.

6. Ability to adjust the temperature and time to comply with the changing guidelines and new research evidence. (To limit the maximum temperature to 200 Celsius as the ignition point of paper comes at 233 Celsius/ 451 Fahrenheit).

My design was inspected and confirmed by an engineer who was an academic at the Moratuwa University.

The device with removable trays and separators

The device was produced by a private contractor agreed upon by me and the RMV. The production process was constantly inspected by me and necessary adjustments were made. The fished product which was delivered to the RMV was inspected by myself and a mechanical engineer, Dr Chathura Ranasinghe (PhD).

The device could maintain a temperature of 70 degrees Celsius for 15 minutes as per the requirement. It also has the capability to increase the temperature up to 200 degrees and maintain it for 60 minutes. It has detachable trays with separators for each document. The air flow inside the chamber has been achieved by a blower unit. The risk of burn and electrical shock was tested and ruled out. However, I strongly advised the use of a plug base with an active earth wire.

I also advised the DMT-RMV to think of a method of handling the documents safely without contamination during transportation from the device to the office desk. I also noted the need to use several temperature sensors for each rack and to improve on the timer by using a fully digital instrument, in future designs.

The device is being used since at the DMT-RMV, Narahenpita.

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About the Author

Dr. Thusitha Kahaduwa who is currently working as a Medical Officer in Palliative care in the National Cancer Control Programme (NCCP) is a researcher and an International Award-Winning Inventor (Reg: Platinum category - 1240 0085). Other inventions he is credited for include Patents 15186 - A modified Axillary crutch, 15185 - Negative pressure wound therapy machine, 15919 - Abdominal pressure measuring catheter, 15918 - Offloading device for heal ulcers, 17879 -An Automated wound Ozonator, 17880 - A Temperature and 'Vibration Sense' measuring device for diabetic foot (Gold medal with added honors in medical inventions - 2015 Geneva), 20600 - A surgical assisting Device, 20601 - Smart vehicle to vehicle communicator.

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PICTURE TEST

By Dr. Chiranthi K Liyanage

1. A 33-year-old female presented with a history of painful fingers and toes when exposed to cold. She has noted that the colour of the skin changes to white and then blue with subsequent flushing on re-warming.

a. List 2 features you note in this patient's hands.
b. What is the diagnosis?
c. List 2 disorders which are commonly associated with the above condition.
d. List medicines which are effective in treating her condition.

2. A 54-year old female with a history of wheezing for 10 years presented with a painful rash over in her legs for 2-weeks duration. She also complains of loss of appetite and loss of weight over the last 3 months. Her full blood count revealed a peripheral eosinophilia and the urine full report showed a microscopic haematuria.

a. What is your impression of the skin lesions on her legs?
b. What is the most likely diagnosis?
c. Name one blood test that would aid in establishing a diagnosis in this patient.

3. A 24-year old female diagnosed of systemic lupus erythematosus (SLE) who is currently on warfarin due to an episode of cerebral venous sinus thrombosis, presented with pain and blackening of the left 3rd toe for one week. She did not have fever or any other constitutional symptoms. Upon further inquiry, it was found that she has not been taking her warfarin tablets regularly. On examination all peripheral pulses in her legs were felt and were of good volume. There were no murmurs on auscultation of the precordium.

a. What do you see in this photograph of her left foot?
b. What underlying associated condition is likely to have resulted in her current presentation?
c. List two other possible causes for her current presentation.
d. Name three antibody tests which are done to diagnose the condition mentioned in b.

ANSWERS

1. A. Digital pitted scars/ulcers, pulp loss and trophic changes in the finger tips
   B. Raynaud's phenomenon
   C. Systemic Scleroderma, Systemic lupus erythematosus, Polymyositis/dermatomyositis, Sjögren's syndrome, Undifferentiated connective tissue disease, Mixed connective tissue disease, Paraneoplastic syndrome, Cryoglobulinemia, Cold agglutinin, Paraproteinemia
   D. Calcium channel blocker (nifedipine, amlodipine, nicardipine), phosphodiesterase type 5 inhibitor (sildenafil), topical nitrate, angiotensin II receptor blocker (losartan), selective serotonin reuptake inhibitor (fluoxetine), intravenous prostaglandins

2. A. It is a vasculitis skin rash.
   B. eosinophilic granulomatosis with polyangiitis (Churg-Strauss)
   C. MPO-ANCA or P-ANCA

3. A. Gangrene of the 3rd left toe
   B. Antiphospholipid syndrome
   C. Embolism of cardiac or other thrombi, Raynaud's phenomenon, embolism of a vegetation of infective endocarditis
   D. Anti-cardiolipin antibodies, anti- beta2-glycoprotein (GP) I antibodies and lupus anticoagulant (LA)

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- Trusted for almost 17 years. [2]
- Seretide offers improved outcomes vs doubling the dose of ICS therapy. [3]
- With Seretide, 83% of patients* who achieved control remained controlled after 1 year. [4]

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

9 772550 277003