

FROM THE PEN OF THE PRESIDENT...

Dear Members

Independent Medical Practitioners' Association(IMPA) is an association of medical practitioners who are providing health care services in the private sector in Sri Lanka. The key global organization in the field of health care delivery namely WHO recently came out (to be very exact on 23rd of Spetember 2019) with a document which is very much relevant for those of us who are active clinicians. This was a wake up call for those millions of primary care physicians spread across the globe providing medical services from urban to rural, from elite to marginalized and from rich to poor populations. The document is about achieving Universal Health Coverage or UHC. My message will come in 2 sections for the president's column which will continue in the next Newsletter. First a few words regarding UHC. The second will deal with our responsibility towards UHC.

The concept of UHC is not new. WHO 1948 Constitution declares health is a fundamental human right. Sustainable Development Goals (SDGs)-SDG 3.8 sets a target to "achieve Universal Health Coverage, including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all." Thus defined UHC rests on three key ideas: equity, quality, and affordability. WHO's General Programme of Work for 2019-23 has set an ambitious goal of 1 billion more people benefiting from UHC by 2023

UHC is basically provision of Preventive, Promotive, Curative, Rehabilitative, Palliative care to every person anywhere without incurring financial hardships. It has been estimated that 50% of the global population do not receive the health services they need and approximately 100 million people are pushed into extreme poverty each year because of out-of-pocket spending on health. WHO is of the opinion that to achieve the ideal of UHC that is 100% coverage of the population for 100% of the services available and for 100% of the cost the following are the essential pre-requisites:

ADAPTATION - Adaptive Health Care Delivery System - A strong, efficient, well-run health system that meets priority health needs through people-centred integrated care (including services for HIV, tuberculosis, malaria, noncommunicable diseases, maternal and child health) by : informing and encouraging people to stay healthy and prevent illness ; detecting health conditions early ; having the capacity to treat disease; and helping patients with rehabilitation.

AFFORDABILITY - a system for financing health services so people do not suffer financial hardship when using them. This can be achieved in a variety of ways.

ACCESSIBILITY - Access to essential medicines and technologies to diagnose and treat medical problems.

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Editor - Dr A L P de S Seneviratne

AVAILABILITY - of a sufficient capacity of well-trained, motivated health workers to provide the services to meet patients' needs based on the best available evidence.

Three fundamental, interrelated problems restrict countries from moving closer to universal coverage. The first is the availability of resources. No country, no matter how rich, has been able to ensure that everyone has immediate access to every technology and intervention that may improve their health or prolong their lives. At the other end of the scale, in the poorest countries, few services are available to all. The second barrier to universal coverage is an overreliance on direct payments at the time people need care. These include over-the-counter payments for medicines and fees for consultations and procedures. Even if people have some form of health insurance, they may need to contribute in the form of co-payments, co-insurance or deductibles. The obligation to pay directly for services at the moment of need – whether that payment is made on a formal or informal (under the table) basis – prevents millions of people receiving health care when they need it. For those who do seek treatment, it can result in severe financial hardship, even impoverishment. The third impediment to a more rapid movement towards universal coverage is the inefficient and inequitable use of resources. At a conservative estimate, 20-40% of health resources are being wasted. Reducing this waste would greatly improve the ability of health systems to provide quality services and improve health. Improved efficiency often makes it easier for the ministry of health to make a case for obtaining additional funding from the ministry of finance. The path to universal coverage, then, is relatively simple - at least on paper. Countries must raise sufficient funds, reduce the reliance on direct payments to finance services, and improve efficiency and equity. These aspects are discussed in the next sections.

Dr Ananda Perera

Second Part of this Message will continue in the Next Newsletter.

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The Editor IMPA News

Measles ... no more Article in IMPA News Issue 08/volume 24/August 2019

I would be thankful if you consider the following comments on the above article.

- 1. The heading gives a wrong impression of the true situation in the world or even Sri Lanka. If it said 'Sri Lanka has eliminated measles WHO', it would have been acceptable
- 2. The qualifications and/or designation of the author are missing. If they are given the reader gets an idea about who is writing it.
- 3. It seems to have been written for non-medical readers. (incubation period and communicable period are defined in the article)

Yours faithfully

Lucian Dr Lucian Jayasuriya Council member IMPA Joint Editor, SLMA Guidelines and Information on Vaccines

Editors Comments Dr Lucian Jayasuriya Council member

Dear Sir Thank you for your comments.

- 1. I do agree that the heading may not be appropriate, but when you read through, it is clearly understood that we are talking about Sri Lanka.
- 2. Unfortunately this is a typo error. Her qualifications and designation as follow...

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Dr Dineshani Hettiarachchi MB.BS(Manipal),MSC in Regenarative Medicine (Colombo), MCGP Lecturer, Dept.of Anatomy, University of Colombo SLMC Reg.No 28709

- 3. The article has the following details. This will update the knowledge of our members.
 - I. Epidemiological details
 - II. Good vaccine coverage and well established EPI programme in Sri Lanka
 - III. Details regarding the measles vaccine
 - IV. Details regarding measles...incubation period, disease transmission, symptoms and signs, comparison with chickenpox etc.
 - V. Clear references

I like to publish the WHO reference article regarding elimination of measles from Sri Lanka for the information of all our members.

On the verge of elimination, a country faces the problem of low level of natural immunity and less chance of boosting of the existing vaccine induced immunity in the population. This may carry a high risk for measles infection, which could lead to an outbreak situation, despite the high coverage of vaccination. In fact, Sri Lanka experienced a similar situation in March 2019.



Sri Lanka eliminates measles SEAR/PR/1712

New Delhi, 9 July 2019: The World Health Organization today announced Sri Lanka has eliminated measles, interrupting transmission of the indigenous virus that causes the killer childhood disease.

"Sri Lanka's achievement comes at a time when globally measles cases are increasing. The country's success demonstrates its commitment, and the determination of its health workforce and parents to protect children against measles," said Dr Poonam Khetrapal Singh, Regional Director WHO South-East Asia, congratulating the island nation.

An independent verification committee reviewed in detail all data and ongoing efforts for measles elimination in the island nation and concluded that Sri Lanka has stopped transmission of indigenous measles virus. The country reported its last case of measles caused by an indigenous virus in May 2016. Sporadic cases, reported in the last three years have all been importations that were quickly detected, investigated and rapidly responded to.

Sri Lanka's success follows its persistent efforts to ensure maximum coverage with two doses of measles and rubella vaccines being provided in the childhood immunisation programme. The vaccination coverage in the country has been consistently high - over 95% with both the first and second dose of measles and rubella vaccine provided to children under the routine immunization programme. Additionally, mass vaccination campaigns with a measles-rubella vaccine have been held periodically to plug the immunization gaps, the last one in 2014.

The country has a strong surveillance system and all vaccine-preventable diseases are an integral part of the communicable disease surveillance system. Measles is a notifiable disease in the country.

"The risk of importations of measles virus from countries near and far will remain, specially from those that have significant population movement with Sri Lanka. Further strengthening immunity of the vulnerable population, capacities to detect and readiness to respond to measles virus both at the national and sub-national levels, would be the key to the country's continued measles-free status in the coming years," the Regional Director said. She announced Sri Lanka's measles-free achievement at the South-East Asia Regional Immunisation Technical Advisory group meeting here. Sri Lanka is the fourth country in WHO South-East Asia Region, after Bhutan, Maldives and Timor-Leste, to eliminate measles and control rubella, a flagship priority programme of WHO in the Region, ahead of the 2020 regional target. Last year Sri Lanka achieved rubella control, along with five other countries -Bangladesh, Bhutan, Maldives, Nepal and Timor-Leste.

With Sri Lanka's recent achievement, five countries of the Region have now eliminated measles. In 2017-18 Bhutan, Maldives, DPR Korea and Timor-Leste eliminated measles. While measles is a major childhood killer disease, rubella causes irreversible deformities and disabilities in new-borns.

"Elimination of measles is a good indicator of the strength of immunization systems generally and, by extension, of the quality and reach of the primary health care system" the Regional Director said.

Despite good progress, challenges remain in reaching the most vulnerable and hard to reach population and the underserved. Of the 37 million children born in the Region every year, 11% are missing out on basic vaccines during their first year of life. Calling upon Member countries to heighten vigilance, and further accelerate immunization coverage, Dr Khetrapal Singh, added, "moving forward, we must harness this momentum to sustain our achievements, accelerate progress, and make the most of innovative technologies and interventions".

All 11 countries in WHO South-East Asia Region, home to one-fourth of the global population, have been accelerating efforts to eliminate measles and control rubella by also leveraging reach and support of existing networks such as of the polio eradication programme.

Elimination of measles is achieved when a country interrupts transmission of indigenous virus for three years. Rubella control is achieved when a country reduces the number of rubella cases by 95% as compared to cases in 2008.

CASE REPORT

Atypical presentation of thyrotoxicosis Dr. A.L.P. De S. Seneviratne MB;BS,DFM,FCGP,MRCGP,MD Board-certified Specialist in Family Medicine Dr. S.D.S.N. Malintha MB.BS;DFM Registrar Family Medicine

Mr A, 66 year old retired railway station master had presented to The Medical Clinic with hoarseness of voice for a duration of one month. On inquiry she admitted that his trousers have become looser than before and experienced passage of loose stools two to three times a day, during the past few months his appetite remained the same.

Though he was very active in the past he started feeling lethargic and became fatigue with the course of the illness.

He was an ex-smoker who stopped smoking about 5 years back. He lives with his wife and their only child. Mr .A was highly worried ,as he was a heavy smoker in the past ,that the voice change might be due to a cancer and the fear of cancer was the reason for encounter to his family doctor.

On examination, he was a smartly dressed gentleman with much concern on his illness. His weight which was 72 Kg few months earlier, was 67 Kg at the consultation. There were fine tremors in his outstretched hands. Examination of the neck revealed no palpable thyroid gland.

The pulse rate was 90 beats per minute and regular in rhythm with good volume. His blood pressure was 130/80 Hgmm. Heart sounds were heard normally.

Chest was clear with and no added sounds. Abdominal examination was normal.

Differential Diagnosis (DD)

According to the clinical findings DDs were, diabetes mellitus, hypothyroidism or thyrotoxicosis. The possibility of a bowel malignancy was also kept in mind.

Investigation ordered and the results

Fasting blood sugar - 94 mg/dl Full Blood count - WBC - 8400 N- 67% , L - 22% , Hb - 11.6 g/dl TSH - 0.02 uIU/ml (0.4 - 4) Serum free T4 - 2.6ng/dl(0.8 - 1.8)

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Probable diagnosis considered at this stage

Laboratory investigations confirmed the condition to be thyrotoxicosis. The etiology was not yet clear and could be due to any of the following.

- Toxic Multinodular Goiter(MNG)
- thyroid cancer
- Thyrotoxic phase of thyroiditis
- Multinodular Goiter with exogenous thyroxine intake

Further investigations done

USS Thyroid gland - Toxic Multinodular goiter

Management implemented at the GP clinic

His fear of a malignancy was alleviated successfully with explanation of the findings . He was started on antithyroid drug carbimazole 10mg twice a day as the initial dose. Dose adjustment with the response to treatment was the follow up plan. Patient was educated on the possible commonest side effect of carbimazole , and was asked to report immediately of any sore throat or fever. Follow up visit was arranged in four weeks with repeat serum TSH and T4 levels. (2)

Follow up visit in four weeks

Patient presented in four weeks to the Medical Clinic as requested. Patient was feeling better with treatment. Clinically there was a significant improvement. His voice has become more towards his usual nature. Frequency of bowel motion has become less while the consistency has changed to normal.

On examination, there were hardly any tremors observed in hands. The pulse rate has come down to 72 beats per minute.

Carbimazole was continued for an another one month and a follow up consultation was arranged fulfilling continuity of care.

Discussion

Mr. A presented with symptoms related to both hyper and hypothyroidism. While hoarseness and lethargy pointing towards hypothyroidism , loss of weight, and frequent loose stools raise the suspicion of thyrotoxicosis. Investigations done on him confirmed the diagnosis.

Thyrotoxicosis in the Elderly

In the elderly the typical features of thyrotoxicosis would not appear and presentation of a mixed picture is not uncommon. They could present with apathetic thyrotoxicosis where features such as lethargy ,easy fatigability, listless ,apathy and depression. The clinical picture of thyrotoxicosis in the elderly is different from that of young as they frequently have atrial fibrillation, easy fatigability and weight loss rather than anxiety, sweating or hyperactivity.

Causes of thyrotoxicosis

Graves disease is the commonest cause of thyrotoxicosis at all ages followed by subacute thyroiditis. Toxic Multinodular Goiter is more common in the elderly. Iodine induced thyrotoxicosis and amiodarone induced thyrotoxicosis are also seen in the elderly population. Thyrotoxic phase of thyroiditis is a possibility in this age group. Ectopic thyroid tissue though rare is among other causes of thyrotoxicosis.

Diagnosis of thyrotoxicosis

- Thyroid function tests Thyroid stimulating hormone (TSH) levels are low in thyrotoxicosis, Free Thyroxine (T4) levels are higher than normal
- Autoantibody testing anti thyroperoxidase antibody (anti TPO) - positive in autoimmune thyroid disorders ? eg: Grave's disease. TSH receptor stimulating antibody(TRab)- diagnostic of Grave's disease
- Thyroid Scintigraphy beneficial when the etiology is not clear after physical examination and laboratory investigations.
- Ultrasound scan of the thyroid gland will tell you the size, nodularity and retrosternal extension.

Management of thyrotoxicosis

Management of thyrotoxicosis

- Symptom relief beta blockers are commonly used for this purpose
- To counteract the action of elevated thyroxine hormone - antithyroid drugs serve this action. Carbimazole is the first line treatment except in thyroid storm, first trimester of pregnancy and intolerance to carbimazole.
- To ablate the hyperactive thyroid gland Radioactive Iodine treatment
- Thyroidectomy

Diagnosis of thyrotoxicosis would be difficult in the elderly due to the atypical presentation and subtle symptoms. But it can silently exacerbate another condition in them such as cardiac illness. Therefore, screening and accurate diagnosis aiming proper treatment is always wise.

Reflection

Atypical presentation of thyrotoxicosis is common in the elderly. That will probably mislead the diagnosis. Serum TSH and free T4 are the standard investigation to diagnose thyrotoxicosis. But once the therapy started with antithyroid treatment most of the time serum T4 returns to normal levels in about 2 to 4 weeks. But it takes 6 to 8 weeks or more for the serum TSH to reach normal levels. Therefore when the patient is been followed up following the commencement of antithyroid medication checking serum free T4 is the best choice and Serum TSH should be done in a later consultation. It will save the cost of an unnecessary investigation. Due to the risk of development of thyroid carcinoma in MNG follow up of this type of patients with repeated ultrasound imaging and Fine Needle Aspiration Cytology (FNAC) of suspicious nodules will be very important in the future.

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ARE THE HISTORY AND PHYSICAL EXAMINATION COMING TO AN END?

David M. Warmflash, MD

As far back as the 1970s, doctors have pondered whether one day, as medical technology barrels ahead, the patient history and physical examination (H&P) would eventually become obsolete.

And yet, we were all told in medical school that a proper history is enough to make X percent of diagnoses, which increases further when you work in physical findings. But today we are on the brink of the era of multiomics, a term encompassing the numerous data available for patients, from genomics, epigenomics, proteomics, microbiomics, metabolomics, and an array of other omics.

These days, a health dataset from a single patient can be immense, to be sure. Advances in artificial intelligence and machine learning, however, are making it possible to organize and filter multiomic data from a patient in ways that make them useful to physicians-ways that can personalize diagnosis and care, and bypass the often imperfect recollections of patients and patients' families obtained during a history.

"We are entering an age when medicine can become truly personalized, as we learn to interpret multiomics data and integrate them with data from other sources, such as sensors, scanners, wearables, and other devices," notes Shane McKee, MD, consultant in genetic and genomic medicine at Northern Ireland Regional Genetics Centre, Belfast City Hospital. Arguably, today many entrepreneurs aren't merely asking whether new tecnology can replace the H&P but whether it can do even better. "The patient is telling us what they can via patient history, physical examination, and family history, but emerging tests are letting us in on unrecognized disease states, inherited risk, and physical circumstances," says Howard McLeod, MD, medical director of the DeBartolo Family Personalized Medicine Institute at the Moffitt Cancer Center in Tampa, Florida. "This goes beyond what a patient 'knows' and leads us toward a level of forecasting that has previously been impossible."

The relevance of obtaining a history or performing a physical has been questioned in the past, particularly with the emergence of clinical genomics and increasingly automated laboratory testing.

In 1975, the *British Medical Journal* published a paper by Hampton and colleagues exploring the relative contribution of the H&P compared with laboratory testing in the diagnosis of outpatients. Of 80 outpatients assessed, 66 (approximately 83%) could be diagnosed on the basis of only a referral letter and a medical history. A physical examination proved useful in seven of the remaining patients, making the combined H&P adequate for diagnosis of 91% of patients in the study. This was only one study, of course, but it was a watershed that has since been cited more than 700 times in the literature. The

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findings perhaps played a role in medical education's emphasis on the H&P.

A 2008 study published in the British Journal of General Practice asked essentially the same question specifically in migraine and supported the earlier findings. The authors found that when a primary care physician conducts a history revealing a new-onset unilateral headache with nausea, there is an 80% chance that the diagnosis is migraine. They felt that their data countered the idea that expanded use of MRI is useful in headache screening.

A new inquiry into the utility of multiomics in diagnosis, published this past May in Nature Medicine, assessed the diagnosis of type 2 diabetes mellitus. The researchers developed models for predicting insulin resistance using a combination of clinical measures along with patient data gleaned from a parade of "omes": The genome, immunome, transcriptome, proteome, metabolome, and microbiome were all assessed in the study.

The authors concluded that these omics measurements could replace traditional tests, which the paper deems burdensome.

Given the different possible manifestations of the condition, however, one of the authors of the paper, Michael Snyder, PhD, of Stanford University, was asked about the differential utility of multiomics. "Multiomics and big data will be powerful for diagnosing and subtyping complex diseases," says Snyder, who is Stanford W. Ascherman professor and chair of the Department of Genetics, and director of the Center for Genomics and Personalized Medicine. "For example, diabetes is a highly heterogenous disease, and making many measurements will likely distinguish its different subtypes."

[P]lenty of clinicians still believe in the value of simply talking to their patients...

Geneticist Angus John Clarke, a professor at Cardiff University in Wales, has argued that environmental and epigenomic factors render genomic data of minimal use without also considering family history data. Yet with multiomics now accounting for epigenomic and environmental factors, these concerns eventually may be overcome. Adding another perspective, McKee, the Belfast genomics consultant, suggests that the new technology has set the stage for medicine to finally back away from a reliance on large devices and suites of laboratory equipment. "Paradoxically, as medicine becomes more data oriented and technology drivenby orders of magnitude-its intrusion into our everyday lives as patients will become less, and we'll hardly even recognize it as medicine," suggests McKee. "That sounds like a very attractive goal."

Plenty of clinicians still believe in the value of simply talking to their patients, however, even if not for the explicit purpose of obtaining data relevant to a diagnosis.

PhenoMx, a biotechnology company based in New York City, is commercializing what it calls a personalized digital physical examination. The idea is to make MRI more accessible to the public and use full-body scanning as a preventive tool, as opposed to its typical use in diagnosis. Despite the company's mission, COO Mark Luhovy, MD, isn't suggesting that physicians abandon the tried-and-true patient encounter.

"Integrated multiomics, next-generation imaging, and wearables' data will reduce physician diagnostic speculation and enhance prognostic modeling capabilities," he says. "But the patient story must remain preserved to ensure an authentic connection. Not all of the information exchanged during a physician-patient interaction is quantifiable."

Stanford Medical School's Stanford Medicine 25 program is one of the leading programs intent on fostering bedside medicine. Through various inperson and online courses, it trains young physician on the importance of observing and connecting with their patients, which typically includes a thorough physical exam and patient history.

In recent video published on Medscape, program director Dr Abraham Verghese commented, "the more things that we can do at the bedside and interpret for the patient", the better. The key element is that we should still be there; it would be a mistake to do those things and disappear ourselves."

Sent by Dr.Tilak Munasinghe

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STABILITY OF THE FUTURE DELIVERED TODAY...





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