



IMPA JOURNAL

Published by the
Independent Medical Practitioners Association of Sri Lanka



IMPA JOURNAL

*Volume 12 | Number 01
December 2018*

Published by the
Independent Medical Practitioners Association of Sri Lanka

275/75, Prof. Stanley Wijesundara Mawatha, Colombo 7.
Tel: 011 250 11 13 Fax: 011 250 08 18 E-mail: champa.impa@gmail.com
Web site: www.impa-lk.org

ISSN 2465-6135

INDEPENDENT MEDICAL PRACTITIONERS ASSOCIATION OFFICE BEARERS 2017/2018



SEATED LEFT TO RIGHT

Dr. S.M. Samarage, Dr. W.O. Wadugodapitiya, Dr. Joe Fernando, Dr. N.P.S. Gunaratne, Dr. Palitha Abeykoon (Vice President), Dr. A.H.A. Hazari (President)
Dr. S.M. Goonesekera (Vice President), Dr. S.A.P. Gnanissara (Vice President), Dr. F.A. Rajakulendran, Dr. Sydney Jayasuriya (Past President), Dr. A.L.P. de S.
Seneviratne (Editor), Prof. I. Joel Fernando (Immediate Past President)

STANDING LEFT TO RIGHT

Dr. W. Titus Fernando, Mrs. Champa Silva (Administrative Officer), Dr. Ananda Perera (Hon. Joint Secretary), Dr. B. Karunaratne, Dr. L.D.L.P. Liyanage,
Dr. M.S.R. Mihilar, Dr. N.K. Ashubodha, Dr. Hector Weerasinghe, Dr. Sujatha Samarakoon, Dr. P. Sivapalan, Dr. Maxi Fernandopulle, Dr. Sanath Hettige,
Dr. H.L. Pathirajamudali (Treasurer), Dr. Iyanthi Abeyewickreme, Dr. D.K.D. Mathew, Dr. Jayantha Jayatissa (Hony. Joint Secretary)

ABSENT

Dr. Lucian Jayasuriya, Dr. M.K. Muruganathan, Dr. B.G.D. Bujawansa (Past President), Dr. Bernard de Zoysa (Past President), Dr. W.A. Ferdinand (Past
President), Dr. S.R. Ratnapala (Past President)

**The Independent Medical Practitioners Association of Sri Lanka
Office Bearers 2017/2018**

<i>Patron</i>	-	Prof Lalitha Mendis
<i>President</i>	-	Dr A H A Hazari
<i>Vice Presidents</i>	-	Dr S M Goonesekera Dr Palitha Abeykoon Dr S A P Gnanissara
<i>Hony. Joint Secretaries</i>	-	Dr Jayantha Jayatissa Dr Ananda Perera
<i>Hony. Treasurer</i>	-	Dr H L Pathirajamudali
<i>Asst. Treasurer</i>	-	Dr B Karunaratne
<i>Editor</i>	-	Dr A L P de S Seneviratne
<i>Council Members</i>	-	Dr (Mrs) I Abeyewickrema Dr N K Ashubodha Dr Joe Fernando Dr Titus Fernando Dr Maxie Fernandopulle Dr N P S Gunaratne Dr Sanath Hettige Dr Lucian Jayasuriya Dr L D L P Liyanage Dr M S R Mihilar Dr D K D Mathew Dr M K Muruganathan Dr F A Rajakulendra Dr S M Samarage Dr (Mrs) I S Samarakoon Dr P Sivapalan Dr P R Siriwardena Dr W O Wadugodapitiya Dr D W Weerasooriya Dr Hector Weerasianghe
<i>Past Presidents</i>	-	Prof I Joel Fernando Dr Sydney Jayasuriya Dr B G D Bujawansa Dr S R Ratnapala Dr Lakshman Weerasena Dr Bernard de Zoysa

Introducing!

The assurance of Goodness



✓ Packed with Great Tasting Fruit Crunchies.

✓ Iron & Calcium.

Iron - 4.5mg/100g, Calcium - 330mg/100g



Nestlé

Good Food, Good Life



IMPA JOURNAL

*Volume 12 | Number 01
December 2018*

.....

Editor - Prof I Joel Fernando

Editorial Board - Dr A H A Hazari
Dr Palitha Abeykoon
Dr Naomal Gunaratna
Dr Sarath M Samarage
Dr A L P de S Seneviratne
Dr Sujatha Samarakoon
Dr Iyanthi Abeyewickreme

.....

Zincovit[®]

Tablets

**Provides Zinc,
Essential Vitamins & Minerals**



***SPECIALLY FORMULATED
TO BOOST IMMUNITY***



The Sole agents in Sri Lanka :
A. Baur & Co. Ltd.
62, Jethawana Road, (Grandpass) Colombo 14,
Tel : 4728700, Fax : 2342516.

apex[®]
www.apexlab.com

President's Message

It is with great pleasure I take this opportunity to be able to express my sincere appreciation to the IMPA in publishing the 2018 Journal (Volume 12) again this year.

I hope the IMPA would be able to publish this journal annually and if possible more frequently.

I wish to thank the editor Prof. Joel Fernando along with the members of the editorial board for having devoted much of their valuable time and efforts in compiling this journal which supports IMPA members to receive and express their opinion on several topics of significance especially in the field of medicine.

I wish to thank all those who have submitted articles for this journal. I also wish to thank our administrative officer Ms. Champa Silva for her untiring efforts in coordinating all the work required in printing this journal.

I appreciate the efforts of our printer AK² PRO for obliging us always in producing this excellent journal.

Finally I thank the sponsors and advertisers for all the support and assistance provided to publish this journal and wish the IMPA the very best in all the future activities.

Dr A H A Hazari

President
IMPA



රාජ්‍ය ඖෂධ හිතිගත සංස්ථාව

දසක තත්වය - ආරක්ෂාකාරී - ප්‍රත්‍යක්ෂ ඖෂධ
සඳහා රාජ්‍ය ඔසුසල් වෙත නොපමාව පිහිනගන්න

කොළඹ කොටුව

63, ෪෪ බාර්ටන් ජයතිලක මාවත කොළඹ 01. දුර: /ෆැක්ස් - 011-2328046

කොටුව දුම්රිය පොළ පරිශ්‍රය

දුම්රිය පොළ පරිශ්‍රය, කොටුව. දුර: /ෆැක්ස් - 011-2336926

බොරැල්ල

ඊජ්ජේ ආර්යා ලමා රෝහල් පරිශ්‍රය, බොරැල්ල. දුර: /ෆැක්ස් - 011-2697660

කොළඹ 07

255, ධර්මපාල මාවත, කොළඹ 07. දුර: 011-2672293 /ෆැක්ස් - 011-2694716

කොළඹ 04

85, ෆාලු පාර, කොළඹ 04. දුර: 011-2587128 /ෆැක්ස් - 011-2559531

නුවර

14/3, ලමාගාම මාවත, නුවර. දුර /ෆැක්ස්: 081-2225175

නුවර දුම්රිය පොළ

දුම්රියපොළ පරිශ්‍රය, නුවර. දුර /ෆැක්ස්: 081-2225176

ගාල්ල

61/3, වක්වැල පාර, ගාල්ල. දුර: /ෆැක්ස් - 091-2234726

ගම්පහ

266, කොළඹ පාර, ගම්පහ. දුර: /ෆැක්ස් - 033-2234516

රත්නපුරය

32, හන්දි එල්ලාව මාවත, රත්නපුර. දුර: /ෆැක්ස් - 045-2223014

බදුල්ල

෧. නගර. ෧. ගොඩනැගිල්ල, බණ්ඩාරවෙල පාර, බදුල්ල. දුර: /ෆැක්ස් - 055-2229837

කුරුණෑගල

28, විචතුරා ගොඩනැගිල්ල, බෞද්ධාලෝක මාවත, කුරුණෑගල.

දුර: /ෆැක්ස් - 037-2230840

නුගේගොඩ

151, එස් ජී එස් ජයසිංහ මාවත, නුගේගොඩ. දුර: /ෆැක්ස් - 011-2856641

මිනුවන්ගොඩ

පර්ණා ගම සඟා ගොඩනැගිල්ල, කොළඹ පාර, මිනුවන්ගොඩ. දුර: /ෆැක්ස් - 011-2295120

පානදුර

159, විවිධ සේවා සමුපකාරී ගොඩනැගිල්ල, ෆාලු පාර, පානදුර.

දුර: /ෆැක්ස් - 038-2234767

අච්ඡාදවේල්ල

40, කොළඹ පාර, අච්ඡාදවේල්ල. දුර: /ෆැක්ස් - 036-2222501

අනුරාධපුර

414/4, ගොඩගේ මාවත, අනුරාධපුර. 025-2227488

අක්කරේපත්තුව

74, ටී.බී. 02, අක්කරේපත්තුව. දුර/ෆැක්ස්: 067-2057625

පිළියන්දල

13/21, විද්‍යාල මාවත, පිළියන්දල. දුර: /ෆැක්ස් - 011-2613640

නාගොඩ

313, මතුම පාර, නාගොඩ, කළුතර. දුර: /ෆැක්ස් - 034-2222818

තින්තවුර

දුටුගා විද්‍යා, තින්තවුර. දුර: /ෆැක්ස් - 067-2058208

මාතර

වාර්ෂාබාමය, අනුරාධපුර ධර්මපාල මාවත, මාතර. දුර: /ෆැක්ස් - 041-2231871

බණ්ඩාරගම

රෝහල් පරිශ්‍රය, හොරණ පාර, බණ්ඩාරගම. දුර: /ෆැක්ස් - 038-2288671

අම්පාර

පන්සල් හන්දිය, ඩී. එස්. සේනානායක මාවත අම්පාර. දුර: /ෆැක්ස් - 063-2223088

හම්බන්තොට

3, බැරපක් විද්‍යා, හම්බන්තොට. දුර: /ෆැක්ස් - 047-2222163

මහරගම

71/3, අල්විස් ජලාසා, පර්ණා පාර, මහරගම. දුර: /ෆැක්ස් - 011-2745640

ශ්‍රී ජයවර්ධනපුර රෝහල,

නලපන්තිය, නුගේගොඩ. දුර: /ෆැක්ස් - 011-2779414

කරාපිටිය

175, හිරිඹුර පාර, කරාපිටිය දුර: /ෆැක්ස් - 091-2226947

මීගමුව

134, මහ රෝහල ඉදිරිපිට, කොළඹ පාර, මීගමුව. දුර: /ෆැක්ස් - 031-2228599

දියතලාව

බස් නැවතුම්පොළ අසල, මහ විද්‍යා, දියතලාව. දුර: /ෆැක්ස් - 057-2227190

තංගල්ල

08, ඉදිපොකුණගොඩ මාවත, තංගල්ල. දුර: /ෆැක්ස් - 047 2241221

රත්මලාන

මෙහා සහෝස, ෆොලුමඩම හන්දිය, ෆාලු පාර, රත්මලාන. දුර: /ෆැක්ස් - 011-3043789

යාපනය

ආර්ය බදුසල, ශික්ෂණ රෝහල, යාපනය - 021-2219262

පොළොන්නරුව

රෝහල් හන්දිය, කදුරුවෙල පාර, පොළොන්නරුව. දුර: /ෆැක්ස් - 027-2225465

රාගම

61/3, මහබාගේ පාර, රාගම. දුර: /ෆැක්ස් - 011-2955219

අඹිලිපිටිය

102, කෙලින් විද්‍යා, පල්ලෙගම, අඹිලිපිටිය. දුර: /ෆැක්ස් - 047-2261177

බේරුවල

සමුපකාරී මන්දිරය, ෆාලු පාර, බේරුවල. වෙල/ෆැක්ස්: 034-2278578

මොණරාගල

31, පොතුවිල පාර, මොණරාගල දුර/ෆැක්ස්: 055-2277712

පේරාදෙණිය

1156, ගැටබේ, පේරාදෙණිය. දුර: /ෆැක්ස් - 081-2386045

ගර්භණී කාන්තාවන්ට, වයස අවුරුදු 50 අඩු දරුවන්ට, 55 ඉක්මවූ පේෂ්ඨ පුරවැසියන්ට හා රණවිරු විරූපර වරප්‍රසාද කාඩ්පත් හිමියන්ට සියළුම රාජ්‍ය ඔසුසල් මගින් බෙහෙත් වට්ටෝරා සඳහා 5% වට්ටමක් හිමි වේ.

5%

Content

	Page No.
The Private Sector Health Care System of Sri Lanka - Dr B G D Bujawansa	01
Spirometry in early diagnosis of obstructive lung disease - a clinical perspective for primary care physicians - Savithri W Wimalasekera	05
Helping a dying patient to breathe in Chronic Obstructive Pulmonary Disease - Dr Seneth Samaranayake	13
Ending AIDS by 2025 in Sri Lanka - Dr Lilani Rajapaksa	17
Helping the patient who smokes tobacco - Mahesh Rajasuriya	21
Management of Depressive Disorder in Primary Care - Prof Raveen Hanwella	27
Interventional Pulmonology - history and applications - Dr Yamuna Rajapakse	31
Prosthetic Heart Valve in Pregnancy - Dr K A Chandima Iroshani	37
Extracts from 49 th (25 th February 1979) Annual Report of IMPA - Dr A H Hazari (Snr) & Dr I Joel Fernando	41



*Skin is not
just the largest
sense organ
but the most
sensitive part
of life*

*Needs care
and protection ...*

Presenting the versatile skin care range ...

Olamin

Ciclopirox Olamine 1% Cream

Microdox DT

Doxycycline 100mg dispersible Tablets

Herperax

Aciclovir 200 mg /800 mg Tablets / Aciclovir 5 % w/w Ointment

Fungitop

Miconazole Nitrate 2% Gel

Betagel-G

Betamethasone 0.05% w/w + Gentamicin 0.1% w/w Topical Gel

Sterisone

Clobetasone Butyrate 0.05% Cream

Secalia

Glycerin IP 15% w/w Cream

Fexico 180

Fexofenadine 180mg

Lorinol

Loratidine 10mg Tablets

Fungicon

Fluconazole 150 mg Capsules

Aziderm

Azelaic Acid 20% w/w Cream

Steriderm-S

Clobetasol Propionate 0.05% Cream

Mupirax

Mupirocin 2% w/w Ointment

Predace

Methylprednisolone 8/16 mg

Minolin 100

Minocyclin Hydrochloride 100mg



MegaPharma (Pvt) Ltd.
A Mega Commitment to Medicine

93/5, Dutugemunu Street, Colombo 06.

Tel: 4 203596-7, 2 812390-1, Fax: 2 828481, 4 205804

E-mail: megasam@sltnet.lk

The Private Sector Health Care System of Sri Lanka

Dr B G D Bujawansa

My interest in the private sector health care system is because I have been in it for more than four decades. The system serves the community in both delivering health care for indoor patients and out patients. It has come into being without planning. In the beginning it served the needs of a certain category of patients and provided self employment opportunity for some doctors. It continues to do so. More often than not the community benefited from the system. There are lapses in the system and the State is moving to control it but not with consistent success. The system needs control and change both for the benefit of the system and the community. This article is a humble attempt to study the evolution of the system, its strengths and weaknesses, its unique features and how it could be improved and controlled.

The system has two components one for out patients and the other for indoor patients. The outpatient facilities were earlier known as “dispensary & surgeries”. More appropriately they are now known as “family practices” or “general practices”. The biggest achievement in the history of outpatient private health care system was the evolution of academic family medicine. The membership of College of general practitioners is the only qualification from a non university body recognized by the Sri Lanka Medical Council .The Postgraduate Institute of Medicine of the University of Colombo offers facilities to qualify as a diplomate in family medicine or to read for a doctorate in family medicine. The negative side of this development is family

doctors get lost in academic activities overlooking the medico-political problems faced by the family doctor.

The first private hospital in Sri Lanka was Green Memorial Hospital in Manipay which was established in 1847. It was not functioning for a long time. This hospital recruited even medical students and therefore can be recorded as the first teaching hospital in Sri Lanka. Some interested parties have revived this establishment recently and it carries out outpatient care to some extent presently. Ratnams Hospital opened in 1904 is the oldest nursing home in Colombo. Joseph Frazer hospital was opened in 1923 followed by Grandpass Nursing Home in 1942 and Durdans Hospital in 1945 and Central Hospital in 1947. Other Hospitals in Colombo were established during the last four decades. Currently there are about 150 private hospitals in the Island. with about 5000 beds altogether.

When non specialist medical officers in government service were allowed to engage in private practice in early 1980s the situation of outpatient facilities changed. Many doctors in government service opened up practices to work after official working hours. Facts and figures about private sector outdoor facilities are not readily available. However it may be less than thousand doctors engaged in full time general practice in addition to the Registered Medical Practitioners, who are not medical graduates engaged in full time general practice.

Private Medical Institutions (Registration) Act was introduced in 2006 to register all private health care institutions. This was met with resistance in the form of trade union activity. Most of the establishments run by doctors in government service and some establishments run by full time general practices were not registered. This resulted in non availability of statistics and State control of these establishments. This situation may not be in the best interest of the medical fraternity and the community at large. To quote one situation some doctors practice in back rooms of pharmacies. This raises queries about the dignity of the doctor and ethical issues regarding both the doctor and the pharmacy owner.

The private hospitals are unique because the most important component of the work force are not being their permanent employees. This is in fact an advantage to the private hospitals when dual practice of the consultant is considered there is the possibility that quality of care in public sector may be deliberately compromised. There is wide diversity of charges for the same service even within the same institution. This is an area that should be remedied probably by Ministry of Health and Private Hospital ownership working together. Almost all private hospitals are registered in Private Health Services Regulatory Council unlike outpatient care establishments. Despite this most data about private hospitals are not available to the Ministry of Health.

Frequently allegations are made about

irrelevant expensive investigations and procedures being carried out on patients. Very high rate Caesarian deliveries in private hospitals are a good example. Qualifications, credentials and competence of foreign medical personnel has raised issues every now and then. Some of these medical personnel who got temporary registration in Sri Lanka Medical Council to practice in Sri Lanka apparently did not have registration to practice in their own country. Queries about competence arose when patients with complications after procedures by foreign medical personnel got admitted to State hospitals. Sometimes it has been pointed out that government service doctors are working in private hospitals during official working hours. This should be discouraged by the management of private hospitals.

If private health establishments become highly profit oriented it will be counterproductive. Same can be said about resistance to control by State. In fact having eight medical schools in the Island in future medical graduates will have to seek employment in private sector health care. This health care system has to be well looked after and regulated. It should be a blessing to the public a respectable source of additional income to State sector consultants and an important source of employment for future doctors. Both the Health Ministry and those already in private sector health care should work together to achieve this goal.

Dr B G D Bujawansa MBBS, FCGP
Past President, IMPA
References: Dayaratne. D.G. Private Health Care Delivery in
Sri Lanka: Institute of Policy Studies
<http://en.wikipedia.org>, wiki Green Memorial Hospital

WITH BEST COMPLIMENTS

FROM



**Sri Lanka Office: No. 439, Galle Road, Colombo 3
Tel: 011 4766666**

Makers of



In Allergic Rhinitis

Allegra®

(Fexofenadine HCl)

Because *Performance* matters

Works Fast¹

24 Hours Effective²

Cardio Safe³

Safe for children³

Non Sedating³

1. Current Allergy & Clinical Immunology 2001;14:14-16. 2. Drugs 2000; 59(2): 301-321. 3. Expert Opin. Drug Metab. Toxicol. 2009; 5(7):813-822.

For the use only of a Registered Medical Practitioner or a Hospital or a Laboratory.

ALLEGRA™ Fexofenadine Hydrochloride I.P. THERAPEUTIC CATEGORY: Antihistamine. COMPOSITION: Oral Suspension Each 5ml of Allegra suspension contains Fexofenadine hydrochloride I.P. 30mg. Tablets: Each tablet of Allegra 30mg contains Fexofenadine hydrochloride I.P. 30mg (equivalent to fexofenadine 28mg). Each tablet of Allegra 120mg contains Fexofenadine hydrochloride I.P. 120mg (equivalent to fexofenadine 112mg). Each tablet of Allegra 180mg contains Fexofenadine hydrochloride I.P. 180mg (equivalent to fexofenadine 168mg). THERAPEUTIC INDICATIONS: Allegra is indicated for relief of symptoms associated with allergic rhinitis and chronic idiopathic urticaria. Allegra oral suspension is indicated for relief of symptoms associated with allergic rhinitis in children 2-11 years of age and uncomplicated skin manifestations of chronic idiopathic urticaria in children 6 months to 11 years of age. DOSAGE AND ADMINISTRATION: Allergic rhinitis Children 2-11 years: Recommended dose is 30mg twice daily. A dose of 30mg (5ml in case of Allegra Suspension) once daily is recommended as the starting dose for paediatric patients with decreased renal function. Adults and children aged 12 years and over: Recommended dose is 120mg once daily or 180mg once daily. A dose of 60 mg once daily is recommended as the starting dose in patients with decreased renal function. Allergic skin conditions (eg. Chronic urticaria) Children 6 months-11 years: Recommended dose is 30mg (5ml) twice daily for patients 2-11 years of age and 15mg (2.5ml) twice daily for patients 6 months to less than 2 years of age. For paediatric patients with decreased renal function the recommended starting dose is 30mg (5ml) once daily for patients 2-11 years of age and 15mg (2.5ml) once daily for patients 6 months to less than 2 years of age. Adults and children aged 12 years and over: Recommended dose is 180mg once daily. A dose of 60 mg once daily is recommended as the starting dose in patients with decreased renal function. Special Populations Studies in special risk groups (elderly or hepatically impaired patients) indicate that it is not necessary to adjust the dose of fexofenadine hydrochloride in these patients. SAFETY-RELATED INFORMATION: Contraindications: Product is contraindicated in patients with known hypersensitivity to any of its ingredients. Precautions: Patients should be advised to shake the Allegra suspension bottle well, before each use. Pregnancy: Used only if the potential benefit outweighs the potential risk. Interactions: Co-administration of fexofenadine with erythromycin or ketoconazole resulted in no significant increases in C₁₂. Administration of an antacid containing aluminium or magnesium hydroxide gels should be 2 hours before or after administration of fexofenadine. No interaction between fexofenadine and omeprazole observed. Adverse Reactions: Most frequent include >3%: headache, 1-3%: drowsiness, dizziness and nausea. For full prescribing information please write to: Sanofi India Ltd., Sanofi House, CT Survey No 117-B, L&T Business Park, Saki Vihar Road, Powai, Mumbai 400072. Source: CCDS Ver. 5, NOV 2006, USPI-July 2007 Updated: April 2015



SANOFI

Sanofi Lanka Limited

Level 2, Aitken Spence Tower II, 315 Vauxhall Street,
Colombo 02, Sri Lanka.

SAN-FEX-16.06.0693

Spirometry in early diagnosis of obstructive lung disease - a clinical perspective for primary care physicians

Savithri W Wimalasekera

Spirometry or respiratory function testing is widely considered as the gold standard in the diagnosis, assessment and monitoring of respiratory disease¹. It is particularly useful to diagnose obstructive respiratory disease. The commonest obstructive respiratory diseases encountered in primary care are asthma and chronic obstructive pulmonary disease (COPD). Spirometry can be usefully applied to confirm asthma and to stage the severity of COPD. This article will focus on the importance of spirometry, the indications for spirometry, how best a patient should be referred for spirometry and the importance of spirometry in the diagnosis of obstructive airway disease.

Spirometers or lung function testing apparatus have evolved from large, cumbersome equipment to simple, easy to use computerised devices. The newer simple devices can be easily installed for use in a primary care setting. The range of devices vary from hand held spirometers that are able to provide basic information to the clinician to computerised spirometer systems. Most computerised spirometers are presently designed to display graphs, and to auto calculate predicted values based on height, weight, gender and ethnicity of the individual. They provide results which can be added to clinical records in printed format or as digital copies. The availability of a spirometer with a trained technical officer / nurse to assess respiratory function facilitates better health care to patients in a primary care setting.

The importance of spirometry in obstructive airway disease

Asthma and COPD are the commonest obstructive airway diseases that need long term care with careful monitoring of the patient. Airway obstruction often occurs in episodes in asthma, while it is progressive and persistent in chronic bronchitis, emphysema leading to COPD. Asthma results when the airways are acutely narrowed due to constriction of smooth muscles in the bronchi along with inflammation and oedema of the bronchial mucosa. The resultant narrowing of the airways leads to episodes of severe shortness of breath that can be reversed when treated with bronchodilators. COPD on the other hand is serious chronic respiratory disease that results in considerable morbidity and mortality. However diagnosis of COPD often occurs late and then the patient outcomes too are poor. Early diagnosis of COPD helps to better manage the symptoms and slow the progression of the disease. In order to early diagnose COPD, spirometry is essential.

Early diagnosis of COPD

Commonly COPD is under-diagnosed throughout the world. Often the diagnosis is made only once lung function has significantly deteriorated. The patient becomes aware of the symptoms and seriousness of the disorder only after the Forced Expiratory Volume in the 1st second (FEV1) has decreased more than about 50% of the predicted value (ie only once the patient's health status is extensively reduced). Further comorbidities complicate

the debility further adding to the costs of health care. The progression of the disease results in increased costs to the health care system by hospitalisation, and demands for health care services. Further costs are added due to disability, loss of productivity, necessity of a care giver and family support. Many of these costs could be reduced by early diagnosis and prompt interventions. Early intervention that can be commonly employed are smoking cessation, exercise and rehabilitation, lifestyle changes, influenza/pneumococcal vaccination and the reduction of exacerbations. The above methods often result in better quality of life for the patient, and a reduction in the progression of disease.

Referring the patient

Indications for spirometry are briefly outlined in the table below (Table 1).

Contra - indications for spirometry

Performing lung function tests can be physically demanding for the patient. Patients should not be tested within

1 month of a myocardial infarction. Some of the common contraindications are; haemoptysis of unknown origin, Pneumothorax; Unstable cardiovascular status, 'recent' myocardial infarction or pulmonary embolus; Thoracic, abdominal or cerebral aneurysms (danger of rupture due to increased thoracic pressure); 'Recent' eye surgery (eg, cataract); Presence of an acute illness or symptom that might interfere with test performance (eg, nausea, vomiting); and Recent thoracic or abdominal surgery. The duration of recent surgery is usually considered as within the last three months.

Method of referral

Indicate the need for the test, is it a persistent shortness of breath, intractable cough etc. as per the indications for spirometry briefly outlined in Table 1.

Indicate the tentative diagnosis anticipated; whether it is asthma or COPD as a post bronchodilator response test is essential in the differentiation.

Diagnostic to assess :

- symptoms and/ or signs pertaining to respiratory system e.g chronic cough, dyspnea, wheezing etc
- the effect of disease on pulmonary function
- persons at risk of having pulmonary disease eg chronic smokers
- pre - operative risk
- prognosis of patients with respiratory disease
- health status before beginning strenuous physical activity programme

Monitoring to :

- assess therapeutic intervention
- describe the course of disease that affect lung function
- monitor people exposed to injurious agents
- monitor for adverse reactions to drugs with known pulmonary toxicity

Disability / impairment evaluations to assess :

- patients as part of a rehabilitation programme
- risks as part of insurance evaluation
- persons for medico legal investigations

Table 1. Indications for spirometry

Preparation of the patient. Spirometry is never performed during a clinical exacerbation of a patient and it is essential that the patient's condition should be stable (ie. a minimum of 6 weeks since an exacerbation of respiratory disease). The patient should be advised to refrain from the following for a minimum period of time as listed below.

The patient is advised to refrain from the following prior to lung function testing.

- Performing vigorous exercise within 30 min of testing.
- Smoking within at least 1 h of testing.
- Eating a large meal within 2 h of testing
- Consuming alcohol within 4 h of testing .
- Wearing clothing that substantially restricts full chest and abdominal expansion.

If the clinician needs a bronchodilator reversibility test to determine the patient's respiratory disorder, the clinician should decide if short or long acting bronchodilators could be withheld for a few hours before the test. Ideally, the patient should be advised to stop their short acting β_2 agonist for 6 hours, long acting bronchodilator for 12 hours and theophyllines for 24 hours. However if it is not possible for the above medications to be with-held for the above period of time, the patient should be advised to take the usual medications, to record the time of taking the medication on the test day and to bring the medications when attending the procedure.

Spirometry Measurements and Terminology

Spirometry measures the rate at which the lung volumes change during forced breathing maneuvers. Spirometry begins with normal tidal respiration. This is

followed by a full inhalation which fills the lungs to its maximal capacity, followed by a forced expiration that rapidly empties the lungs. Expiration is continued for as long as possible or until a plateau in exhaled volume is reached. These respiratory manoeuvres are effort dependant and requires training of the patient. The values are recorded and graphed. (the graph is depicted in Figure 1 and a glossary of terms used listed with Table 1).

Lung function is physiologically divided into four volumes: expiratory reserve volume, inspiratory reserve volume, residual volume, and tidal volume. Together, the four lung volumes equal the total lung capacity (TLC). Lung volumes and their combinations measure various lung capacities such as functional residual capacity (FRC), inspiratory capacity, and VC. Figure 1 shows the different volumes and capacities of the lung. The most important spirometric maneuver is the FVC. To measure FVC, the patient inhales maximally, then exhales as rapidly and as completely as possible. Normal lungs generally can empty more than 80 percent of their volume in six seconds or less. The forced expiratory volume in one second (FEV1) is the volume of air exhaled in the first second of the FVC maneuver. The FEV1/FVC ratio is expressed as a percentage (e.g., FEV1 of 0.5 L divided by FVC of 2.0 L gives an FEV1/FVC ratio.

Principles of interpretation of a spirometry test

1. **Determine the validity and repeatability of the test- are the values obtained repeatable** (was the patient breathing appropriately during the test? at least 2 efforts of respiration should have similar values within 200 ml of each other),
2. **Look at the graphs** : Usually there are two graphs; they are 1. the volume

time curve and 2. the flow volume loop (Figure 2 and Figure 3). Both graphs can be used to diagnose respiratory disease.

The volume time curve: It indicates the volume and the time of expiration plotted in an expiratory graph. Observe if the expiratory curve is smooth, even and runs for a minimum of 6 seconds. It can be used to determine the FVC and the FEV1 and calculate the FEV1/FVC ratio.

The flow volume loop

It plots the flow of air in the Y axis against the volume of air in the X axis of the graph. and it is again useful to diagnose the type of respiratory disease. Look at the loop. the plot above the zero line indicates the expiratory curve and the plot below the zero line indicates the inspiratory curve.

3. **Look at the data table.** Usually there are 3 columns of data. The 3 columns are as follows; patient's data, predicted data, and percentage predicted data.

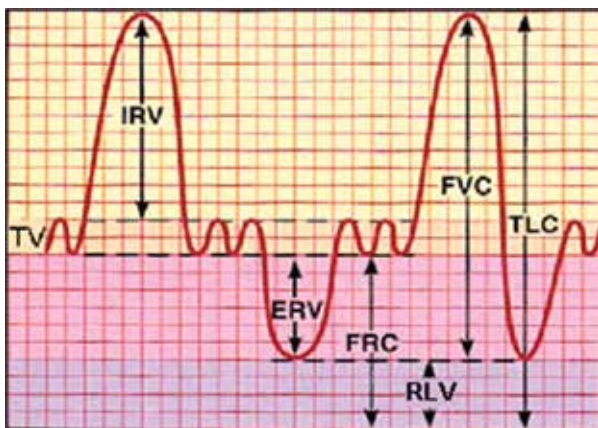


Figure 1. indicates the lung volumes and capacities obtained in spirometry

(TV - tidal volume, IRV - Inspiratory reserve volume, ERV - Expiratory reserve volume, FRC Functional residual capacity, RLV - Residual volume, FVC - Forced Vital capacity / Vital capacity, TLC = Total Lung Capacity).

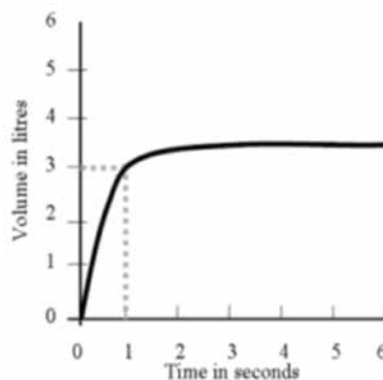


Figure 2. Volume Time Graph

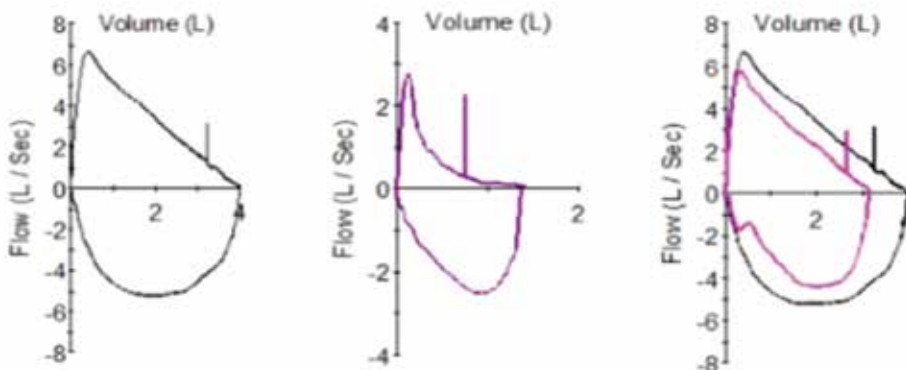


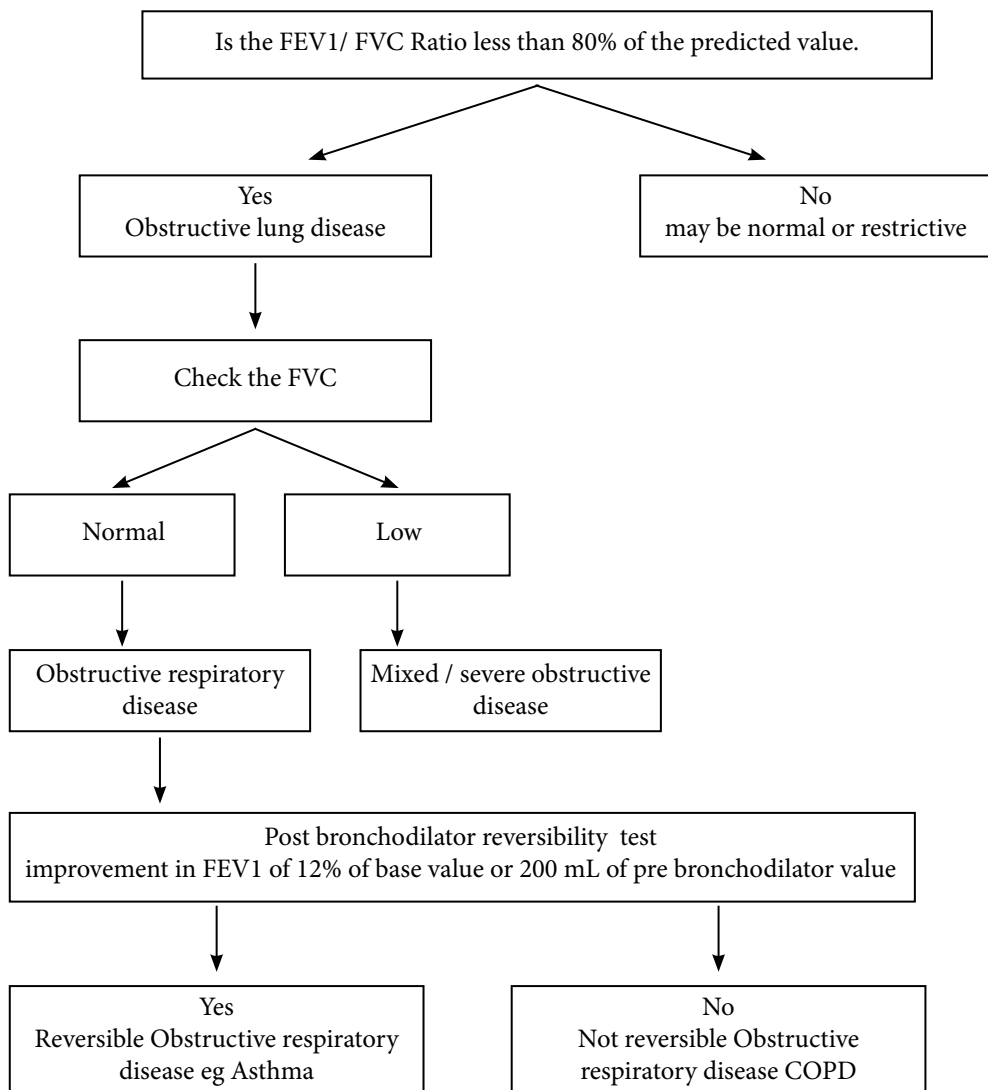
Figure 3. Flow Volume Loop Loope A - Normal Loop B Obstructive pattern Loop C Restrictive pattern

Often the patient's data are put in one column. The next column with the predictive data as for a normal person of the same height, weight, age and ethnic distribution as the patient. The last column usually indicates the percentage predicted (% predicted) (ie the patient's recorded value as against the ideal values as a percentage).

patient's data column.

The key points on spirometry expressed above further emphasize the need to use clinical examination findings as the main guide to diagnosis. Spirometry results act as a guide but cannot be considered as an unimpeachable gold standard to diagnose asthma or COPD. The diagnosis of asthma/COPD depends on expert physician correlation of patient history, physical examination and pulmonary function test results.

Look at the main 3 data points, the FVC, FEV1 and the FEV1/ FVC ratio. Now follow the algorithm below to determine the type of respiratory disease using the



Key points

- Spirometry is a powerful tool that can be used to detect, follow, and manage patients with lung disorders.
- Technology advancements have made spirometry much more reliable and relatively simple to implement in primary care.
- Interpreting spirometry results can be challenging as the quality of the test is largely dependent on patient effort and cooperation, and the interpreter's knowledge
- Reference values have been formulated to Sri Lanka although the spirometers are not calibrated with the Sri Lankan values.
- A simplified stepwise method is key to interpreting spirometry.

Step 1 - determine the validity of the test. (are the flow volume curves good. are the values reliable and repeatable?)

- step 2 - determine the ventilatory pattern if obstructive or restrictive
- step 3 - if obstructive determine if it is bronchodilator reversible
- if reversible (post bronchodilator response in FEV1 < 200 mL/ more than 12% of prebronchodilator value) it is reversible obstructive airway disease (asthma) or early COPD.
 - If not reversible (post bronchodilator response in FEV1 < 200 mL/ less than 12% of prebronchodilator value) - it is compatible with COPD

References

1. Brendan G Cooper, An update on contraindications for lung function testing, Thorax 2011;66:714e723. doi:10.1136 / thx.2010.139881

Savithri W Wimalasekera MBBS, M Phil, Ph D,
Consultant Clinical Physiologist and Associate Professor,
Department of Physiology, Faculty of Medical Sciences, University
of Sri Jayewardenepura, Nugegoda

In non-alcoholic steatohepatitis (NASH)...

Liv.52 DS

(TABLET)

Unparalleled in liver care

Established efficacy and safety in NASH

- Significant reduction in symptoms such as nausea and vomiting
- Significant reduction in hepatomegaly score compared with UDCA
- Decreases ALT,AST, and normalizes ALP
- Near-normal liver architecture after the treatment-proven by ultrasonography
- 100% overall improvement in signs and symptoms compared with baseline values

Dosage

Initially, 2 tablets twice daily, followed by 1 tablet twice daily



The Himalaya Drug Company

www.himalayawellness.com
Email: ramesh.joseph@megapharma.lk

For complete management of piles...

Pilex[®]

(TABLET, OINTMENT)

The medical answer to a surgical problem

Pilex

(TABLET)

Systemic therapy that facilitates early resolution of symptoms

- Rapidly controls bleeding
- Reduces venous engorgement and helps reduce pile mass
- Corrects chronic constipation associated with piles

Pilex

(OINTMENT)

Topical therapy that promotes faster healing

- Offers local analgesic action
- Controls irritation and itching
- Facilitates smooth evacuation

Dosage

Tablet: 2 tablets twice daily till the symptoms are relieved, followed by 1 tablet twice daily as maintenance therapy.

Directions for use : Ointment : Apply before and after evacuation of the bowel with the help of applicator.

For best results,
always recommend
Pilex tablet &
Pilex ointment in
combination

Rx

Pilex - The medical answer to a surgical problem



The Himalaya Drug Company

www.himalayawellness.com
Email: ramesh.joseph@megapharma.lk

Helping a dying patient to breathe in Chronic Obstructive Pulmonary Disease

Dr Seneth Samaranayake

Chronic Obstructive Pulmonary Disease (COPD)-

COPD is a preventable and a treatable disease. However, it is not curable. In COPD airway limitation is not fully reversible and it is usually progressive. It is associated with chronic inflammation in response to inhaled noxious irritants such as smoking. It is usually associated with a smoking history of at least ten-pack years (one-pack year = 20 cigarettes a day for one year). Xenobiotic, such as those found in wood smoke or from charcoal burning are associated with COPD.

In developing countries burning biomass fuel in a poorly ventilated dwelling could be an important risk factor. Childhood chest infections and low socio-economic status are also known risk factors.

Although chronic obstructive airway disease cannot be cured, it can be well managed. Symptoms can be reduced and quality of life can be improved. Multiple adequate treatment options are available depending on the stage of disease progression. Exacerbations can be reduced and managed under modern therapy.

Palliative Care -

Palliative care is a term derived from Latin to “cloak”. It is a multidisciplinary approach for specialized care for people with serious illness. Its goal is to improve quality of life in these terminally ill patients. It is focused on providing seriously ill patients with relief from symptoms, physical stress and mental stress.

WHO describes palliative care as **“An approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual”**

Initially palliative care was aimed at relieving symptoms at end of life.

However, now it has moved to impacting earlier on disease progression when there is more rehabilitation potential. There is also more psychological understanding now, bringing an aim to motivate patients in to helping themselves until they die.

Palliative care can address a broad range of issues, integrating an individual's specific needs into care. The physical and emotional effects of COPD and its treatment may be very different from person to person. It can be discussed under the following headings

1. Physical - Symptoms such as pain, fatigue, loss of appetite, nausea, vomiting, shortness of breath and insomnia can be relieved with medicines or by using other methods such as nutrition therapy, physical therapy or deep breathing techniques.
2. Emotional and coping - Depression, anxiety and fear can be addressed through palliative care. Experts may provide counseling, recommend

support groups, hold family meetings or make referrals to mental health professionals.

3. Practical - Patients may have financial and legal worries, insurance questions, employment concerns and concerns about completing advance directives. For many patients and families, the technical language and specific details of laws and forms are hard to understand.
4. Spiritual - An expert in palliative care can help people to explore their beliefs and values so that they can find a sense of peace or reach a point of acceptance that is appropriate for their situation.

Who needs palliative care in COPD ?

- **Hospital admissions:** only two-thirds of patients discharged after an admission with respiratory failure survive two years.
- **Severe disease:** FEV1 of 30% predicted or less, on long-term oxygen therapy
- **Depression, poor quality of life, being housebound** due to Chronic illness
- **Co-morbidity** (especially heart failure)
- **Low body mass index.**

End-stage COPD disease

End - stage COPD is a progressive incurable illness. Even at this stage patients may experience exacerbations and recover. There will be many symptoms and comorbidities to manage until ultimately respiratory function is severely compromised.

Exacerbations in COPD

Exacerbations result in hospital admissions and considerable use of primary care services. Social isolation is common and the burden on caring persons is high. Many patients with life threatening exacerbations are stimulated to consider the meaning of life. Distress due to unmet spiritual

and social needs increases anxiety, panic attacks. Gradual decline over a number of years is punctuated by acute, often severe exacerbations, any one of which may or may not, prove fatal.

General practitioners see their COPD patients very often in their clinics. They get very close and familiar with these patients. The uncertain disease progression in COPD may be compounded by a tendency for doctors who are familiar with patients to over-estimate survival. Therefore, death may occur suddenly before clinicians perceive the patient to be “terminal” so missing the opportunity to address important issues.

When should palliative care be offered?

- When these symptoms are there together
 - ♦ Shortness of breath
 - ♦ Cough with mucus production
 - ♦ Weight loss
 - ♦ Depression, Fatigue, Anorexia, Pain, Thirst
 - ♦ Confusion
- When these signs and objective findings are detected
 - ♦ FEV1 < 30% predicted
 - ♦ Central cyanosis
 - ♦ O2 saturation < 92%
 - ♦ marked hyperinflation
 - ♦ Right heart failure (cor pulmonale)
 - ♦ Cachexia

Aims in offering palliative care

Aim is to provide best possible quality of life (QOL) in what remains. QOL is an individual issue and need to be discussed on an individual basis.

Discuss openly with the patient and their individual needs should be respected.

End-stage COPD patients in exacerbation

may like to be managed at home. This individual preference need to be documented and respected wherever possible. Even control of symptoms may have individual preferences. Intubation and mechanical ventilation need to be informed to patients and their families and individual preferences need to be documented and shared with appropriate colleagues.

Where should palliative care take place?

Palliative care for chronic obstructive respiratory disease patients need to be started in general practices ensuring physical, social and spiritual support for patients and their caring persons.

General practice set up for palliative care

Concept of a pre-consultation room in every general practice is very useful in providing palliative care for patients. Pre-consultation room need to be managed by a team of nurses trained in palliative care. A group of patients with similar palliative care needs should be assigned to a single health care worker for personalized care. Out of hour services such as queries to be answered over telephone and fixing emergency appointments could be arranged by a health care worker at the pre consultation room. It is very important that the same message has to be conveyed by the whole health care team. With time the health care worker will develop a friendly rapport with these patients and could talk to patients about legal needs in a subtle note so that they accept suggestions.

For end-stage disease there need to be a separate appointment system and organizing several review appointments for cultural and spiritual care might be of benefit.

As the general practitioner is considered a community leader, it might be more appropriate for him to talk to religious

leaders in the locality and get his patient involved with religious activities.

Personalized continuity of care by a named doctor or nurse is rewarding and by someone who listens to them and value them as a person.

Social needs in palliative care

Coordinating with sponsor groups for financial support in providing appliances (to walk, bathe and climb stairs) and with domestic care may be needed.

Because social isolation is a major problem, support from extended family and friends are also crucial.

Alleviating physical symptoms

Alleviating symptoms are necessary in palliative care by broncho-dilatation with Beta2 agonists, anti-cholinergics and theophyllins. Steroids, opiates are used for relieving cough and dyspnoea. Opiates need to be used in appropriate doses (morphine 5mg 4hrly). Using home remedies are very common in our country and they can be used if there is no evidence of potential harm to the patient.

Patient education on the disease and care planning which is matched with patient beliefs and requests (some patients do want their exacerbations managed at home). Understanding the fear that patients have of suffocating in a terminal event can go a long way in planning the control of end stage symptoms.

Three delays in planning palliative care

1. Delay in knowing what is happening
2. Delay in receiving the right level of care
3. Delay in getting to the right place in which to be cared for

These delays are the consequences of a

series of crucial gaps, misunderstandings and lack of evidence.

Summary

Patients with chronic obstructive airway disease have worse quality of life, greater limitation of activity, more anxiety and depression than lung cancer yet access to palliative care services is rare. Primary care health professionals (GP's) can contribute by identifying end stage chronic obstructive respiratory disease patients and offering them palliative care. They can talk to patients regarding disease, end of life care, alleviating distressing symptoms while ensuring physical, social and spiritual support for patients and their caregivers. There will be different palliative

management strategies in different countries depending on the health delivery systems, cultural backgrounds and on individual beliefs.

Conclusion

Primary healthcare professionals (General Practitioners) have an important role in providing palliative care for patients with chronic obstructive respiratory diseases. In COPD recognizing the end of life illness trajectory of people with organ failure should facilitate identifying "at risk of dying" patients. Plan for, hope for and expect a good death in such patients. A death where they wish with the people they want and with minimal physical, psychological and spiritual distress.

Dr Seneth Samaranayake MBBS, DFM, DCH, FCGP, MD
Consultant Family Physician

Ending AIDS by 2025 in Sri Lanka

Dr Lilani Rajapaksa

Globally there is consensus that activities for HIV prevention and care services need to be accelerated to reach the targets of ending AIDS by 2030 within Sustainable Development Goals agenda. This has become possible due to major scientific breakthroughs in approaches to HIV prevention and treatment. Early diagnosis and early initiation of special (antiretroviral) treatment for persons living with HIV has extended their life span. With the treatment, viral levels of the HIV infected individual will be lowered significantly within 4-6 months and thereby, reducing further transmission of the HIV in the community.

By end 2017 there were total 2842 PLHIV identified and 285 were detected in the year 2017. The estimates show that there are around 3600 people living with HIV in the country. In the year 2018 up to end June 176 PLHIV were diagnosed including 144 males and 32 females. Among males 60% acquired infection through MSM (Men having sex with Men) exposures. During the last 5 years a significant rise was seen among males while female numbers remained same. Of these males a reasonable number indicated MSM exposures as the reason for infection indicating the importance of this population in the control of HIV epidemic in Sri Lanka.

Sri Lanka has experience in eliminating several infections over the years including malaria and filarial infections. Sri Lanka is confident in achieving World Health Organization (WHO) certification on

elimination of mother to child transmission (EMTCT) of HIV and syphilis in 2019. By end 2018 Sri Lanka will achieve the global targets required to validate the EMTCT of HIV and syphilis programme. In the year 2016 country took an important policy decision to treat all persons living with HIV with antiretroviral treatment just after making the diagnosis. EMTCT services programme and HIV care programme is mainly funded through government of Sri Lanka thus making sure sustainability of the programmes. All these developments lead the way to end AIDS as a public health threat to Sri Lanka.

90-90-90 by 2020

Achieving the Following targets by 2020 is an essential milestone on the way to End AIDS.

1. 90% of persons living with HIV will know their status
2. 90% of those identified with HIV infection will be on treatment
3. 90% of those on treatment will achieve virus suppression

Sri Lanka is currently facing a challenge with the first 90 of 90-90-90 targets; ie. Identifying more than 90% of the infected in the population. Of the 3500 estimated number of People living with HIV only 1351 were on services by end 2017. Once diagnosed linking to services is satisfactory. In 2017, out of 285 diagnosed 97% has been linked with services. Antiretroviral treatment programme has shown satisfactory results with 93% of PLHIV

on treatment showing undetectable viral loads.

General practitioner has an important role to play in increasing accessibility to HIV testing services. Early diagnosis is really important to prevent deaths due to AIDS. In the year 2017 there were 51 AIDS cases and 33 deaths due to AIDS reported to NSACP. These deaths occur in relatively young ages leaving families and children to suffer. National STD AIDS Control Programme through network of STD clinics provides all the facilities to manage persons living with HIV including antiretroviral treatment. There is clear evidence that antiretroviral treatment can lower the viral load and improve the quality and quantity of life.

Many steps have been taken to increase testing services. In the year 2017 the total number tested for HIV was 1,171,596 and the seropositivity rate is 0.02%. Different HIV testing options have been introduced to increase testing services. While continuing the HIV ELISA tests done at laboratories of STD clinics and private hospitals, more user friendly point of care tests too have been introduced up to Base hospital levels. General practitioners in the districts Colombo and Gampaha are encouraged to use rapid tests which are provided free of charge from NSACP. Rapid tests are useful as a screening test as this gives results in 20 minutes.

Posters and leaflets have been developed by NSACP to promote HIV testing. Any person who admits having unprotected risky sexual exposure need to be tested for HIV. This includes people who seek services for reassurance after sexual contacts and those present with symptoms of STI.

When the HIV screening test is positive the patient need to be referred to the closest STD clinic or venereologist. This may be

a true positive or false positive result. HIV diagnosis should be confirmed by repeat testing using western blot or immune assay at National reference laboratory of NSACP. It is important to counsel the patient and reassure as people get worried. Patient will get further counselling at the STD clinic including prevention counselling.

If the confirmatory results are positive the person is registered at the STD clinic for HIV care services including antiretroviral treatment. In 2016 the decision was taken to start antiretroviral treatment for all persons diagnosed as having HIV. Before starting treatment the patient receives counselling on treatment including adherence counselling. Partners and children are also screened to exclude infection.

When giving antiretroviral treatment one drug is not effective. At least 3 antiretroviral drugs should be given included in the first line treatment regimen. Depending on the persons clinical staging and system involvement, suitable first line regimen is initiated. The goal of the therapy is to reduce the viral load to undetectable levels within 6 months of treatment and improve the immunity of the person. Viral load suppression depends on the regular follow up visits and adherence to treatment. Of the PLHIV currently on treatment 93% are having satisfactory viral suppression.

Adherence is important in antiretroviral treatment as unsatisfactory adherence can lead to viral replication leading to development of resistance. If a person develops resistance, there will be treatment failure and first line regimen will not be effective. In these instances, the treatment regimen has to be changed to second line treatment. These drugs are more expensive than the first line drugs. Therefore, all care givers should support the patient to take antiretroviral treatment regularly without failing.

Achieving viral suppression is important not only for the infected person but also to the community. If we can identify more than 90% of infected people and start them on antiretroviral treatment that will lead to reduction in community viral load. That means the risk of transmission of HIV is minimal in that community. Prevention through positives has been identified as an important prevention strategy.

Ending AIDS by 2025

HIV infections may not disappear in the foreseeable future, but the AIDS epidemic can be ended as a global health threat.

UNAIDS has set targets to end AIDS by 2030. Sri Lanka is confident that the goal can be reached by 2025. To end AIDS by 2025 the number of new infections and AIDS related deaths will need to decline by 90% compared to that in 2010. General practitioners are an important group of stakeholders who can support the effort to end AIDS by 2025.

Sri Lanka being a country with a low HIV prevalence and a satisfactory infrastructure in place for HIV prevention and care, has the capacity to reach the targets for ending AIDS by 2025.

Dr Lilani Rajapaksa

Acting Director, Consultant Venereologist,
National STD AIDS Control Programme

Glycomet[®]-500 S.R.

Metformin Hydrochloride Sustained Release Tablets 500mg

Glycomet[®] $\frac{500}{850}$

Metformin Hydrochloride 500mg/850mg

Gold Standard Metformin



USV Private Limited

Helping the patient who smokes tobacco

Mahesh Rajasuriya

Tobacco use should be viewed as a disorder, or a problematic behaviour, but not as a moral affliction or a *disease* with a very clear aetiology, pathology, and definitive treatment. The cigarette smoker is neither bad nor disordered merely because the person smokes. It's the behaviour that is disordered and it's the behaviour that best be changed for the patient to benefit.

Tobacco use disorders, according to the 10th edition of International Classification of Mental and Behavioural Disorders (1), are of two types.

- Tobacco/nicotine dependence: the more severe form of tobacco use disorder
- Harmful use of tobacco/ nicotine: the less severe form of tobacco use disorder

When it is dependence, the patient smokes cigarettes heavily every day, mostly to reduce their withdrawal symptoms. From a practical point of view, as far as the diagnostic process is concerned, a patient who smokes daily, usually more than five cigarettes scattered throughout the day, is very likely to have tobacco/nicotine dependence. This is so since it is very difficult for the dependent patient to wait for more than a few hours without smoking, resulting in smoking a cigarette every one to three hours. This is due to emergence of withdrawal symptoms as plasma nicotine levels drop. The half-life of nicotine is around two hours (2). On the other hand, the person who smokes ten cigarettes during a shorter time period (e.g.

from 7 to 10 PM with concomitant alcohol use), but does not smoke at all during other times, is unlikely to have tobacco/ nicotine dependence.

While it can be stated that daily use of more than five cigarettes scattered throughout the day is a hallmark of tobacco dependence, the typical patient who is dependent on tobacco smokes 10-40 cigarettes per day. The extreme form is chain smoking, when the patient lights the next cigarette with the previous cigarette butt. Tobacco smoking by the dependent user, unlike in alcohol drinking, is a multiple dosing situation for 24 h of each day (2).

The tobacco use disorder that is less severe is the harmful use of tobacco. The patient with harmful use of tobacco is not dependent on nicotine and does not smoke to alleviate symptoms of withdrawal. The typical patient that presents to us may or may not smoke daily, and usually smokes less than five cigarettes a day. However, as stated earlier, the patient who smokes a greater number of cigarettes but restricted to a certain time of day, is also likely to have harmful use of tobacco, not dependence, since this patient can spend hours not smoking without any physical discomfort.

The question is whether smoking one or two cigarettes a day is a tobacco use disorder. Is it harmful use of tobacco or not?

One important criterion to diagnose harmful use of tobacco is that smoking tobacco causes some harm to the patient

and the patient is aware of that harm (1). Nowadays we can assume that almost everybody is aware that tobacco smoking harms your health. Thus any smoker, including the intermittent smoker or the non-daily smoker, can be assumed to be aware that even the occasional cigarette is harmful to their health. Therefore even an instance where someone smokes one or two cigarettes a day or just a couple of cigarettes for the whole week can be seen as an example of harmful use of tobacco.

Now let's see how we, as doctors, can help patients with tobacco use disorders. In order to do so, we need to understand the two concepts of "improvement" or "getting better" versus "cessation". Doctors are traditionally educated on and familiar about tobacco cessation, which generally indicates permanent and complete discontinuation of tobacco smoking. Research mostly looks at months of complete abstinence as the desired outcome in helping the patient who smokes (3). If we are only aware of the concept "cessation" we will ignore helping hundreds and thousands of patients who can benefit from "improvement".

A 50% reduction in symptoms in treating depression is recognised as clinical improvement (4). Similarly in the patient who uses tobacco, a decrease in use of tobacco is definitely an improvement. A patient who has reduced his cigarette consumption from ten-a-day to five-a-day following an intervention clearly shows a significant improvement. However this cannot be termed tobacco cessation. To the one who is familiar only with cessation, this significant improvement is, not only insignificant, and therefore invisible, but is indicative of ineffectiveness of the intervention, i.e. treatment failure. If we are able to change our attitude and look at this as an improvement then this is undoubtedly a success and the intervention is seen as an effective one.

Though a complete, permanent, 100 % discontinuation of cigarette smoking is desirable, it may not be practical at all times. Any reduction in the amount of tobacco used is clearly an improvement, the more the better. So let's see how we can help our patients achieve improvement as far as their tobacco use disorder is concerned.

We cannot ignore the observation that up to 75% of people who have achieved long-term improvements or people who can be termed as quitters have done so without any medical help (5). Then the question arises is "is discontinuation of tobacco smoking actually that difficult?"

We cannot afford to ignore the role played by the tobacco industry. It is well known that the tobacco industry was involved in studies of tobacco cessation for a long time and it has been revealed that they have influenced research in tobacco cessation because successful tobacco cessation is in direct contravention with their commercial interests (6). When nicotine replacement therapy (NRT) was introduced in 1984 as a therapeutic agent for tobacco cessation, the tobacco industry felt threatened. However, they later found that smokers use NRT, not really to stop cigarette use, but together with cigarettes (6). The tobacco industry would obviously want to portray quitting tobacco smoking to be an uphill task. Promotion of "cessation" over "improvement" potentially contributes to the perceived difficulty of helping a patient who smokes to make a meaningful change.

Since the smokers who successfully quit without seeking professional help are the majority, let's see how, as doctors, we can help the rest of smokers who come to us. Simple education in minimal time as shown in Box 1 will go a long way as indicated by well-proven success of brief interventions by doctors, nurses and other

health professionals (7). Box 2 summarises the latest findings about effective pharmacological and non-pharmacological interventions (7).

Box 1: Brief educational intervention

- Tobacco smoking is extremely harmful to your health.
- Ingredients in tobacco leaves and chemicals produced during the burning of tobacco leaves harm your health and the health of people around you.
- These chemicals lead to cancer, heart disease, stroke, subfertility, and sexual dysfunction especially in males, worsens your existing medical conditions, and makes you look older than you are.
- If you stop your smoking most effects will reverse, sometimes fully.
- At least try to cut down first until you stop later.
- Most people just quit without even seeing a doctor.

Box 2: Latest effective pharmacological and non-pharmacological interventions (7)

- Pharmacological interventions with evidence:
 1. Nicotine replacement therapy (NRT)
 2. Varenicline*
 3. Bupropion*
 4. Nortriptyline*
 5. Clonidine*
- Non-Pharmacological interventions with evidence:
 1. Motivational interviewing (MI)
 2. Brief interventions by doctors
 3. Structured interventions by nurses
 4. Mobile phone-based interventions
 5. Telephone counselling are effective
- Important observations:
 1. E-cigarettes show contradictory evidence of effectiveness and harm; not be recommended until further research clarifies this.
 2. Pharmacological interventions focus on treating withdrawal; less emphasis on preventing relapses.
 3. Nortriptyline is safer, less expensive and equally effective compared NRT.
 4. Brief advice from the doctor is as effective as NRT.
 5. Clonidine is not to be used on outpatients.
 6. NRT is useful in short-term management of withdrawal symptoms (e.g. during flying) in a heavy smoker not interested in giving up tobacco.

★ Not registered as at 24 November 2018 in the on line Product Directory of National Medicines Regulatory Authority (8).

A possible model to help patients, potentially smokers, who come to a doctor, who is not a specialist in addiction science or mental health, is given in Box 3.

Box 3: Therapy model to help patients who smoke tobacco

1. The Doctor needs to effect some changes in his/ her knowledge base and belief system:
 - a) Research has clearly shown that the advice alone is effective even if the health practitioner does not provide an elaborate treatment intervention (7).
 - b) Appreciate that “improvement” is a satisfactory outcome in addition to “cessation”.
 - c) Appreciate that only a proportion of patients, which is a significant number, who receive your input will make an improvement.
 - d) Appreciate the cost-effectiveness of an intervention, that is, an intervention which takes little time and effort from you delivering even a small rate of success is useful.
2. Do not forget to ask all your adult male patients if they smoke or not.
3. If they said they do, simply advise them to stop smoking because it’s harmful to health (box 1); or simple ask whether they haven’t considered quitting smoking, or do both.
4. If the patient has a medical condition that is related to smoking such as a heart or metabolic condition or a respiratory disease, you can always give advice based on medical grounds.
5. Steps 2 to 4 should not take more than half a minute. So you’re not spending extra time. This alone is likely to be helpful in getting at least a portion of your patients to quit or to achieve improvements in their tobacco use.
6. Try to do steps 2 to 4 with patients family present, if that is appropriate, so you are having a wider reception to your health advice.

Another intervention that you can do is to ask your patients, after step one, especially the patients, who express more interest, to try and maintain a cigarette diary (**Box 4**).

Box 4: Cigarette diary: A simple assessment and treatment tool

If you question the patient on the number of cigarettes they smoke daily, they might say they smoke about 10 cigarettes a day, but if you ask the patient to keep a small piece of paper or a little note book in their pocket and mark every cigarette that they smoke, preferably with the time marked under the date, they usually realise that they smoke more than they thought they did. That alone gives them a significant insight into their habit and then it becomes easier for them to start cutting down. So if the patient has smoked 14 cigarettes yesterday the patient can try and smoke 12 or less today. Sometimes the patient may not actually maintain the diary however the advice alone might make the patient more conscious of each act or most acts of lighting a cigarette and that itself may have an effect on reducing the number of instances where cigarettes are lit up.

These interventions are very simple takes little time. Sometimes, as doctors we feel that we have to do deeper, more complicated and comprehensive interventions. However, usually in life, simple things work best. So if we can shift our attention from trying to achieve perfect, persistent, 100 % discontinuation or cessation, to “improvement”, that alone will change our approach to our patient who smokes tobacco, which would most likely be beneficial to the patient individually and to his or her family and in general to the health of the nation.

References

1. World Health Organization. The ICD-10 Classification of Mental and Behavioural Disorders. World Health Organization [Internet]. 1993;1–267. Available from: <http://www.who.int/classifications/icd/en/bluebook.pdf>
2. Stolerman I, Rose J. Nicotine psychopharmacology. *J Psychopharmacol*. 1992;6(4):545–6.
3. Cahill K, Stevens S, Perera R, Lancaster T. Pharmacological interventions for smoking cessation: an overview and network meta-analysis. *Cochrane Database Syst Rev*. 2013;(5):N.PA-N.PA.
4. Ziring J, Black J, Gogia S, Singer J, Stine N, Chokshi D. It's Time to Rethink How We Measure Remission from Depression [Internet]. *NEJM Catalyst*. 2017 [cited 2018 Nov 24]. Available from: <https://catalyst.nejm.org/rethink-measure-depression-remission/>
5. Chapman S, MacKenzie R. The global research neglect of unassisted smoking cessation: causes and consequences. *PLoS Med* [Internet]. 2010 Feb 9;7(2):e1000216. Available from: <http://dx.plos.org/10.1371/journal.pmed.1000216>
6. Ling PM, Glantz SA. Tobacco Industry Research on Smoking Cessation. *J Gen Intern Med*. 2004;19(5 Pt 1):419–26.
7. Rajasuriya M. Review paper A review of interventions for smoking cessation. *Sri Lanka J Psychiatry*. 2017;8(1):10–6.
8. NMRA. Product Directory [Internet]. National Medicines Regulatory Authority. 2018 [cited 2018 Nov 24]. Available from: http://nmra.gov.lk/index.php?option=com_product&Itemid=127&lang=en

Mahesh Rajasuriya

Senior Lecturer, Department of Psychiatry, Faculty of Medicine,
University of Colombo

Consultant Psychiatrist, National Hospital of Sri Lanka

Member, Expert Committee on Tobacco, Alcohol, and

Illicit drugs, Sri Lanka Medical Association

Founding Director, Centre for Combating Tobacco (CCT),

Faculty of Medicine, University of Colombo

Chairman, Alcohol and Drug Information Centre

(ADIC) Sri Lanka Vice-patron, Nest Sri Lanka



Our work is not just about making drugs, its about **making a difference**

We constantly strive to Change the Child's life suffering from pediatric asthma...

- Developing a Pro-Inhalation environment
- Simplifying and aiding the Doctor – Parent communication
- Facilitating the awareness at community level
 - Through programs at Schools
 - Through Breathefree - Diagnostic camps



Talises

Seroflo 125 mcg Inhaler
Salmeterol + Fluticasone propionate

Foracort Inhaler 100 MCG
Formoterol Fumarate + Budesonide

Montair Tablets
Montelukast sodium 4/5 mg

Beclate 100 mcg Inhaler
Beclomethasone

Asthalin 100 mcg Inhaler
200/400 mcg DP-Caps
Respirator Solution
Salbutamol

Budecort Inhaler 200 MCG
Budesonide

AZEE 200 mg/5 ml
Dry Syrup
Azithromycin

Cephalexin Dry Syrup
Cephalexin

Cipla

Cipla Pharma Lanka Pvt Ltd
4th Floor, TCL Building, 345/1/4, Galle Road, Colombo 03, Sri Lanka
www.cipla.com/www.ciplamed.com

Management of Depressive Disorder in Primary Care

Prof Raveen Hanwella

Introduction

Depressive disorder is a disabling illness. It is a medical disorder and should not be confused with the common mood state of depression in the day to day life of a person. However, in this article I will use the word depression as synonymous with depressive disorder.

In the next few years depression will become the leading cause of disease burden in the world. Currently more than 300 million persons are depressed worldwide. Globally nearly a million people commit suicide every year. All persons who commit suicide are not depressed but it is a significant preventable cause. Although effective treatments are available less than half are diagnosed correctly and less than a quarter receive therapy. Three reasons contribute. First, patients are more likely to report the somatic symptoms of depression such as fatigue, pain and insomnia rather than the cognitive symptoms. Second, doctors are not aware that simple effective treatments are available. Third, the stigma of mental illness is a barrier to persons seeking help for mental symptoms.

It is important for the primary care physician to accurately diagnose and effectively treat depression. Inaccurate diagnosis is also a problem. Persons who are not having depression are misdiagnosed as having depression and treated with antidepressants.

Epidemiology

Up to 20 percent of people attending

primary care have a combination of depression and anxiety. Depression affects twice as many females as men. This is true across countries and settings. Studies show that 6 to 10 percent of women in developed countries are depressed. In women attending primary health care centres in developing countries, rates of depression are high as 30 percent. Depression is also high in women subject to domestic violence – a quarter to half of women are victims at some point in their lives. Though depression can arise without a precipitating stressor such events increase the risk of the illness. Chronic pain and medical illness also contribute to increase the risk of depression.

Clinical Symptoms

The key symptoms of depression are low mood and a triad of symptoms (remembered as the 3 'A's): anhedonia (inability to enjoy what was pleasurable before), asthenia (a feeling of body fatigue and tiredness) and apathy (lack of interest and emotion). At least one of these key symptoms should have been present most of the time for at least two weeks for diagnosis. Note that a feeling of sadness or low mood is not essential for a diagnosis of depression.

In addition to the key symptoms there are additional symptoms not specific for depression but help to determine the severity of illness. The somatic symptoms of depression include: diurnal variation of mood (the mood is worse in the morning and gets better towards evening), loss of

appetite, loss of libido, loss of weight and early morning insomnia (wakes up two hours or more before usual wake up time). Some patients with depressive symptoms develop psychotic symptoms. These are usually hallucinations with delusions which are mood congruent (for example delusions of worthlessness or that a body part is non-functioning).

Suicide is always a risk patients with depression and suicidal ideation must be always looked for. This can range from thinking that it would be better to die of natural causes or an accident to definite plans to die.

Depression can be graded as mild, moderate or severe. In mild depression the key symptoms are present but to a mild degree with no impairment of day to day functioning. There are no somatic symptoms other than perhaps insomnia. In moderate depression somatic symptoms are present in addition to the key cognitive symptoms and there is some impairment of daily work. In severe depression there are in addition, severe cognitive and somatic symptoms with significant ideas of self-harm or suicide. In some psychotic symptoms are present as well.

Diagnosis

The key to diagnosis is to be alert to the possibility of depressive disorder especially in vulnerable populations. A good history and a mental state focussing on the key symptoms of depression is sufficient for diagnosis in most situations.

The simplest screening question is, "Are you depressed?" The specificity for this question is 97% but is only 37% sensitive, which would mean that only 3 out of 10 depressed patients would be picked up. If the following two questions, "During the past month, have you been bothered

by feeling down, depressed, or hopeless?" "During the past month, have you been bothered by little interest or pleasure in doing things?" are asked the sensitivity would increase to 67%.

Longer self-rating scales could be used. Popular scales are; the PHQ-9 – The 9-item depression scale of the Patient Health Questionnaire; each item is scored 0 to 3, providing a 0 to 27 severity score and the Centre for Epidemiologic Studies-Depression Scale (CES-D) – A 20-item instrument that allows patients to evaluate their feelings, behaviour, and outlook from the previous week.

Differential Diagnosis

It is important to differentiate depressive disorder from bipolar disorder where depressive episodes are interspersed with manic or hypomanic symptoms. In all patients presenting with symptoms of depression the doctor should inquire for past episodes suggestive of hypomania such as overactivity, over spending, grandiose plans or lability of mood. If patients with bipolar disorder are treated only with antidepressants they may destabilise and switch to a hypomanic or manic state. Patients with bipolar disorder must be given a mood stabiliser such as lithium carbonate or sodium valproate.

Treatment

Antidepressants, psychotherapy and electroconvulsive therapy (ECT) are the main modes of treatment in depression.

The severity of depression and the presence of psychotic symptoms and significant ideas of suicide will determine the treatment choice. For mild depression with little impairment of function, supportive or problem-solving psychotherapy is sufficient. Antidepressants are not indicated and even if prescribed may cause

more side effects than therapeutic effects. Moderate and severe depression need treatment with antidepressants preferably in combination with psychotherapy. Severe depression with high suicidal risk is best treated initially with ECT. Antipsychotics should be combined with antidepressants in depression with psychotic symptoms.

Choice of antidepressants

The common choice is an SSRI like escitalopram, sertraline or fluoxetine at a starting dose of 10mg, 50mg or 20mg respectively. Doses could be increased after 3 weeks depending on response. It is important to warn the patient that there won't be an immediate effect and to be patient. If not, discontinuation is likely. SSRIs are usually given in the morning as they have stimulant effects and may reduce sleep if given in the night. If the patient has insomnia clonazepam 0.5mg or lorazepam 1 mg is a good choice but should be tapered off after 2 to 3 weeks.

The older generation tricyclic antidepressants like imipramine and amitriptyline are effective antidepressants but their anticholinergic side effects and lethality in overdose limit use to special situations.

The SNRIs venlafaxine and duloxetine are also useful and could be given in more severe depressive disorder,

The initial duration of treatment in most

patients should be no less than 6 months for a first episode and longer for recurrent episodes. It is important to tell the patient not to stop medication as soon as their better as relapse rates are over 50% if the duration of treatment is inadequate.

Choice of psychotherapy

Supportive psychotherapy, problem solving therapy, behavioural activation, cognitive behavioural therapy, interpersonal therapy and more recently the mindfulness-based therapies such as ACT are effective in treating depressive disorder even if moderately severe in intensity. However, the lack of trained therapists may reduce availability in the local context.

Electroconvulsive therapy (ECT)

ECT is reserved for severe depression or depression with catatonic features or severe suicidal ideation. It may also be used in situations where a quick response is necessary such as in postpartum depression.

When to refer

If patients do not respond to a full dose of an antidepressant even after 2 months, has a severe depression with high suicidal risk or psychotic symptoms, or is suspected to have bipolar disorder it is best to refer to a psychiatrist for further evaluation.

In the majority of situations depression can be managed effectively by the primary care doctor.

Prof Raveen Hanwella MBBS(Col), MD(Psy), FRCPsych,
FSLCPsych, FCCP
Chair Professor of Psychiatry, Department of Psychiatry,
Faculty of Medicine, Colombo, Consultant Psychiatrist, NHSL.

For the use of registered medical practitioner or a hospital or a laboratory.



BE SURE OF RELIEF FROM PAIN

3X
EFFECTIVE
PAIN RELIEF
vs PLACEBO*¹



Panadeine



Formulation: With the combined strength of paracetamol and codeine, Panadiene offers relief from strong pain



Indication: Used in backache and muscular pain

Voltaren



Penetrates deep through the skin and fights pain at the source, by sensitising the pain receptors and inhibiting the activity of the pain-responsive nerve cells²



Pain reduces by half, after 24 hours^{†1}

*vs placebo in acute neck pain † Pain at rest in acute neck pain

References: 1. Predel HG, et al. efficacy and safety of diclofenac diethylamine 1,16% gel in acute neck pain: a randomized, double-blind, placebo-controlled study, *BMC Musculoskeletal Disord.* 2013;14:250. 2. Brune K. Persistence of NSAIDs at effect sites and rapid disappearance from side-effect compartments contributes to tolerability, *Curr Res Opin.* 2007; 23:2985-95.

Use as directed on pack. Do not exceed recommended dose and frequency, as excessive dosage could be harmful to the liver. If fever persists, consult your doctor. For adverse events reporting please call on 0112636341 or email on pharmacovigilance@gsk.com

Trade marks are owned by or licensed to the GSK group of companies.

All rights reserved. **SmithKline Beecham (Pvt) Ltd.** Level 34, West Tower, World Trade Center, Colombo 01, Sri Lanka.

CHSRUCHPANDI0003/18

Interventional Pulmonology - history and applications

Dr Yamuna Rajapakse

Interventional Pulmonology is "the art and science of medicine as related to the performance of diagnostic and invasive therapeutic procedures that require additional training and expertise beyond that required in a standard pulmonary medicine training program." Clinical entities encompassed within the discipline include complex airway management, benign and malignant central airway obstruction, pleural diseases, and pulmonary vascular procedures.

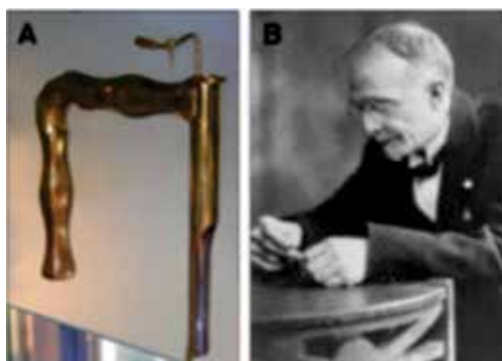
- ERS/ ATS -

Pulmonary Medicine, or Pulmonology, is a sub discipline of Internal Medicine with the added feature of using endoscopic methods for diagnosis and treatment. This aspect of pulmonary medicine has slowly evolved into a sub-discipline of pulmonary medicine, known as Interventional Pulmonology. Pulmonary interventional methods are still underdeveloped when compared to other specialties like cardiology or neuroradiology, however, it has been one of the fastest developing disciplines in recent years.

The era of bronchoscopy began with Gustav Killian, in 1876 when he removed a pork bone from a farmer's airway, using an oesophagoscope. Prompted by this accomplishment, Chevalier Jackson, an American Otolaryngologist, laid the platform for the modern day rigid bronchoscope in the early 20th century. In 1967 Shigeto Ikeda revolutionized the field of bronchoscopy by his innovation of the fiberoptic bronchoscope.



Gustav Killian's first procedure



Chevalier Jackson with his invention

The fiberoptic bronchoscope, being flexible, could reach further into the bronchial tree than the previous rigid models. Using more than 15000 glass fibres and incorporating a working channel, this flexible scope was the precursor to the current models.

Bronchoscopists initially were able to offer diagnostic procedures such as suctioning of bronchial secretions, bronchial washings, bronchial brushing and bronchial biopsies

by utilizing this fiberoptic bronchoscope. By 1972, Transbronchial lung biopsies were being performed with flexible forceps inserted through the working channel of flexible scopes.

Numerous innovators have furthered the horizons of this technology. In 1978, Ko-Pen Wang introduced transbronchial needle aspiration to sample mediastinal lesions and published the first report on the successful bronchoscopic needle aspiration biopsy of paratracheal tumors through a flexible bronchoscope. He further refined the technique by introducing a needle for histological specimen collection to aid in diagnosing benign pathologies. This invention paved the way for the current endobronchial ultrasound guided transbronchial needle aspiration techniques.

In 1981, Lucien Toty and colleagues reported the first use of the Nd: YAG laser in the airways through a rigid bronchoscope. The laser light, with a wavelength of 1064 nm, was delivered by a flexible quartz filament to coagulate or vaporize endobronchial lesions.

Jean-Francois Dumon refined the technique of laser photoresection in patients with malignant or benign endobronchial lesions. He educated numerous bronchoscopists from around the world on the safe use of lasers in the airway. He also achieved a major breakthrough in airway stenting when he introduced a dedicated tracheobronchial prosthesis with a unique external surface designed to preserve mucociliary action and today is considered the father of interventional pulmonology.

During the 1990s, there was a transition from fiberoptic bronchoscopes to video bronchoscopes. With the usage of video charged coupled devices (CCDs), their image quality has improved exponentially allowing the diagnosis of early stage tumors.

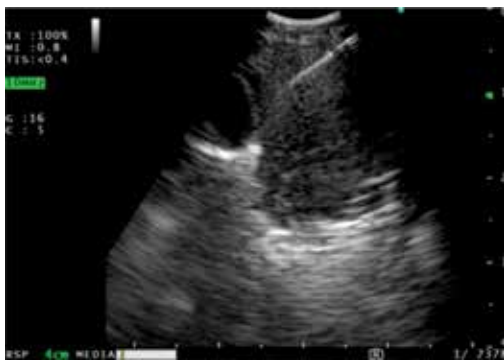
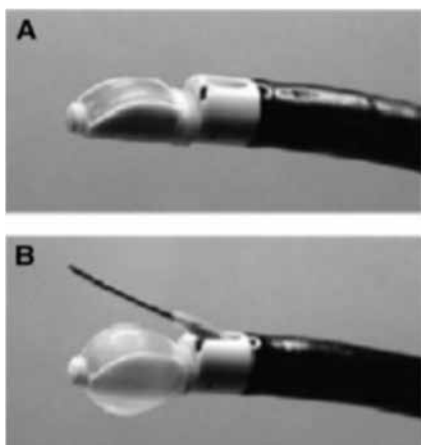


Jean-Francois Dumon with his innovative stents and rigid scope



A video bronchoscope (left) variation in sizes and instrument channels of currently available scopes (above)

The use of Bronchoscopy in the evaluation and treatment of respiratory disease has evolved dramatically over the last two decades. The ability to sample mediastinal lymph nodes by blind transbronchial needle aspiration, led investigators to employ ultrasound probes to detect these lesions prior to biopsying them. This was the principle of endobronchial ultrasound (EBUS) as used in both the radial probe and linear probe devices. Kazuhiro Yasufuku and colleagues first demonstrated the high diagnostic yield of the convex probe EBUS in sampling mediastinal lesions. Since then, CP-EBUS has become the standard tool for determining the stage and diagnosing not only lung cancer, but also idiopathic lung diseases such as Sarcoidosis.



Convex probe EBUS (A) with TBNA needle and balloon (B) and an ultrasonic image obtained during needle aspiration from a lymph node (C)

Interventional pulmonology in Sri Lanka has also progressed in the last few decades. With the introduction of the first flexible bronchoscopic systems in the mid nineties and the advent of the video coupled systems in the past decade, the diagnostic arm of interventional Pulmonology has been well established.

Not only bronchoscopy, but also Medical Thoracoscopy or Pleuroscopy, a minimally invasive method of exploration of the pleural cavity, is now being practiced regularly in several centers in the Island. Via Pleuroscopy, it is possible to diagnose many disorders of the pleural cavity by direct visualization and biopsy and has now replaced closed pleural biopsy techniques. It is now considered one of the main tools in interventional Pulmonology.



A diagram of the semi-rigid thoracoscope in the pleural cavity

The introduction of Convex Probe Endobronchial ultrasound (CP-EBUS) to Sri Lanka in 2014 further enabled respiratory physicians to perform minimally invasive mediastinal diagnostic procedures under conscious sedation. EBUS, which is performed as a day procedure, can access mediastinal lymph nodes and masses and has helped diagnose lesions in the thoracic cavity that previously required general anaesthesia, a longer hospital stay and greater morbidity.

In diagnosis, new biopsy techniques in bronchoscopy and thoracoscopy are

currently being developed. Smaller, more flexible scopes with rotational adjustment and finer biopsy equipment have ensured that sampling of lung tissue is optimized to a large extent. The addition of technology such as cryotherapy has helped in obtaining larger specimens with minimal adverse outcome to the patient.

The other arm of Interventional Pulmonology is its therapeutic arm. Bronchoscopy has now truly reached its potential as a therapeutic tool. Previously the sole domain of the surgeon, the newer, more flexible bronchoscopes and tools has enabled the respiratory physician to perform many therapeutic interventions. Central obstructing tumors can be debulked using either electrocautery, argon-plasma coagulation, laser ablation or cryo-extraction. These methods coupled with airway stenting have ensured a better quality of life for lung cancer patients. Endobronchial brachytherapy and intratumoral chemotherapy or ablative therapy can be utilized in the local management of cancer. There is a similar therapeutic benefit in regard to pleural procedures. While the Seldinger type pleural drains have enabled smoother and less painful management of pleural effusion, the Indwelling Pleural Catheters (IPCs) ensure that patients with effusions refractory to pleurodesis can self-manage their effusions by draining them at home.

More recently, interventional treatment of COPD and asthma has raised significant interest. Endobronchial valve placement has gained momentum as a minimally invasive alternative to surgical lung volume reduction in the treatment of severe hyperinflation of the lung. Valves that are placed bronchoscopically using a flexible delivery catheter after measuring the airway diameter, induce lobar atelectasis but depend on the absence of collateral

ventilation. They allow air to escape the lung during expiration but prevent it from entering during inspiration. Alternative approaches that are being developed include endobronchial coils, vapour therapy and chemical fibrotic agents. In COPD, ablation of the vagus nerve using radio-frequency ablation of the nerve plexus surrounding the main bronchi is at an advanced phase of development. Cryospray therapy with liquid nitrogen is also in development for the treatment of chronic bronchitis. Bronchial thermoplasty is a technique that is being used with great success in the treatment of refractory asthma and has been around for at least a decade.



Endobronchial valves inside the bronchial tree (left), bronchial thermoplasty catheter in situ (right)

Overall, interventional Pulmonology is coming to the fore as a minimally invasive diagnostic and therapeutic modality and an alternative to open thoracic surgery, especially in patients who are unable to undergo prolonged general anaesthesia due to multiple medical co-morbidities. It is also complimentary to thoracic surgery and can assist surgeons in many ways. Procedures are generally conducted in an outpatient or day surgery based setting and have thus the added advantage of lesser cost to the medical institution and patient.

Thoracic medical endoscopes - both bronchoscopes and thorascopes - have evolved from simple visual tools that rely on light, to imaging tools with integrated ultrasound that allow sampling of parabronchial and mediastinal abnormalities. Its true potential however, lies in the increasing number of conditions that may be treated using a bronchoscopic or thoracoscopic approach.

Sources : European Respiratory Society Monograph on IP and Annals of the American Thoracic Society

Dr Yamuna Rajapakse MBBS MD (Medicine)
Consultant Chest Physician, Senior Lecturer, Department of
Anatomy, Genetics & Biomedical Informatics,
Faculty of Medicine, University of Colombo



MERCK

trust

quality

safety

Polybion[®]

Evion[®]

Cosome[®]

Anemidox[®]

Concor[®]

Emerchemie NB (Ceylon) Limited
60, Maligawatte Road, Colombo 10, Sri Lanka.
Tel: 2694864/5, 2675005/6 Fax: 2671877
Web: www.emerchemie.lk

"National in Fibre, International in flavour"

Prosthetic Heart Valve in Pregnancy

Dr K A Chandima Iroshani

Case: Mrs.S is a 34yr old primi-mother with POA of 25/52. She had emergency cardiac surgery and prosthetic mitral valve replacement 11yr back due to ruptured chordae tendineae by complicated Rheumatic heart disease. She was on warfarin and atenolol after the surgery, and has been followed up at cardiology clinic. According to the patient, she was asked not to become pregnant. During her cardiology follow ups, she was prescribed statins due to Dyslipidemia.

She had regular menstrual cycles every 28-30days lasted in 3days. She has started a monogamous relationship with a person for 2yr, and used emergency contraceptive pills when necessary. She was diagnosed to be pregnant at 6/52 of POA, while she was on:

- Warfarin 7.5mg daily
- Atenolol 25mg mane
- Atorvastatin 20mg nocte

She has consulted the VOG as soon as possible and got her treatment revised. There she was prescribed following medication:

- S/C Enoxaparin 80mg daily
- Bisoprolol 2.5mg mane
- Folic acid 5mg nocte
- Haematinics
- Atorvastatin - omitted

Then she was admitted to hospital and given Unfractionated Heparin (UFH) with monitoring of APTT until POA of

10/52+3d, and changed to Warfarin again. Now she is on warfarin 8.5mg daily. Her pregnancy has continued successfully with a single live fetus growing normally without anomalies according to Anomaly scan. Her cardiac function also satisfactory with well-functioning prosthetic valve and with EF > 60%.

Introduction

Historically, rheumatic heart disease was the major cause of valvular heart disease in women of childbearing age¹⁻⁴. Although rheumatic heart disease occurs less commonly in developed countries, the sequelae of rheumatic heart disease remain a problem in low- and middle-income countries. Valvular heart disease in general is associated with not only increased risk for cardiovascular complications but also obstetric complications. Patients with valvular heart disease may need prosthetic valve replacement to alleviate their symptoms. Those who had mechanical heart valves need lifetime anticoagulation with vitamin K antagonist, Warfarin⁵⁻⁶. Patients with contraindications for Warfarin and in advanced age (>70yr), can have Bio-prosthesis.

According to National Maternal Mortality Data, heart disease in pregnancy is a leading cause of maternal deaths in Sri Lanka⁷. Out of 112 maternal deaths, three were due to Rheumatic valvular heart disease in 2016. We have no National figures of maternal and fetal morbidity.

Aim of this article is to discuss maternal

and fetal outcome with prosthetic heart valve in pregnancy, how these patients are managed, what are the best contraceptives for them and most importantly what is our role as family physicians in providing care to them.

Can a woman with a prosthetic heart valve become pregnant?

Having a prosthetic heart valve is not a contraindication to be pregnant. As pregnancy itself is a prothrombotic state, with changes in cardiac physiology, can adversely affect both mother and the fetus. There are few cardiac conditions which are contraindicated to be pregnant⁸. They are:

- Pulmonary artery hypertension of any cause (such as Eisenmenger complex)
- Severe systemic LV dysfunction with: - NYHA class III – IV - LV ejection fraction less than 30%
- Previous peripartum cardiomyopathy with residual impairment of LV function
- Obstructive lesion of left heart – aortic or mitral stenosis with valve area < 1cm²
- Marfan syndrome with aortic root dilatation > 4cm

The Cardiac Disease in Pregnancy (CARPREG) Risk Score can be used to assess the risk of cardiac complications in a patient with an established heart disease⁹. Here, one point is assigned for each of the following risk factors:

- a history of cardiac event or arrhythmia
- New York Heart Association (NYHA) functional class greater than II or cyanosis
- left-heart obstruction (mitral valve area <2 cm², aortic valve area <1.5 cm², or left ventricular outflow tract gradient >30 mmHg)
- left ventricular ejection fraction (LVEF) < 40%

Zero point - 5% risk of cardiac complications
1 point - 27% risk of cardiac complications
2 or more points - 75% risk of cardiac complications

How she should be cared throughout the pregnancy?

A woman with prosthetic heart valve without above contraindication, can bear children under specialized care. Her risks of cardiac complications and fetal complications should be addressed before conception. Once she is confirmed as pregnant, her oral anticoagulant (warfarin) has to be changed to Heparin either Low Molecular Weight Heparin (LMWH) or UFH until 13/52 of gestation¹⁰. Dose of LMWH should be adjusted according to the anti-Xa level (target 0.8–1.2 U/mL, 4–6 hours post-dose). It is also recommended to continue warfarin if the required dose is 5mg or less per day, as warfarin embryopathy was observed mainly in higher doses¹¹. At 35/52 of gestation, LMWH will be restarted until delivery of the fetus. Recent guidelines recommend low-dose aspirin daily in the second and third trimesters for pregnancy⁵. Mode of delivery depends on both the maternal and fetal condition. Vaginal delivery is preferred to surgical delivery as risk of postpartum bleeding is high with LSCS. Warfarin can be restarted after the delivery and safe in breast feeding. Both the mother and the baby should be monitored closely during perinatal period as well.

What can be the fetal outcome?

Several adverse fetal outcomes were described in literature⁸⁻¹². Some of them are spontaneous miscarriage, intrauterine growth retardation (IUGR), prematurity, lower birth weight, intrauterine death, congenital anomalies, neonatal haemorrhage and neonatal death. Exposure to warfarin in the first trimester may result in warfarin embryopathy characterized

by nasal bone hypoplasia and stippled epiphyses. Though it is said that warfarin embryopathy occurs with higher doses of warfarin (>5mg/day), there are case reports where warfarin embryopathy described in lower doses¹³.

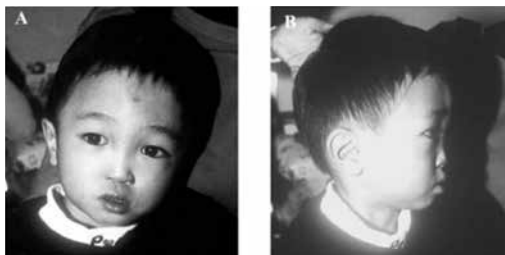


Fig. 1 3yr old child with warfarin embryopathy characterized by nasal bone hypoplasia.

What are the best contraceptives for a woman with prosthetic heart valve?

According to National Maternal Mortality Review 2016, 20 maternal deaths were due to failure of providing appropriate family planning⁷. Contraceptive counselling should begin early, and the choice of method based on the impact of pregnancy, the risks, and benefits of the contraceptive type and the individual's preferences.

For a woman taking anticoagulants, a reliable contraceptive method without increased thrombotic risk, that reduce menstrual blood loss and inhibits ovulation would be most suitable¹⁴⁻¹⁵. Progesterone-only methods, especially the long-acting reversible contraceptives and the Levonogestrel-Intrauterine System (IUS) are therefore the methods of choice in these women. The pain and cervical manipulation during insertion and removal of an IUS can elicit a vagal reaction in women. It can be potentially dangerous in those with preexisting cardiac diseases. Therefore, insertion and removal of an IUS in these women should be done in a setting with cardiovascular monitoring, with anaesthetic support on standby, and using appropriate pain relief. Taking this

into account, Levonogestrel-IUS may therefore be less suited in these women when compared with subdermal implants. Subdermal implants have a superior contraceptive efficacy to sterilization and are easily inserted under local anaesthesia. Female sterilization is another option which would be done as an open or laparoscopic procedure with minimal inflation under general, spinal/epidural, or even local anaesthesia. It requires temporary cessation of the anticoagulation and contains a risk of haemorrhage and thrombosis.

Estrogen containing contraceptives are contraindicated in women with higher risk of thrombosis.

What is the role family physician, providing care to a woman with a prosthetic heart valve or any previous cardiac surgery in her child bearing age?

As a topical country, there are lot of young patients with congenital heart disease, acquired valvular heart disease and prosthetic valve replacement. Though they receive satisfactory cardiology care by specialized settings, they may lack psychosocial support required for their optimal functioning. Family physician has a significant role in providing holistic and person-centered care. If a woman in her child bearing age (or even in childhood) known to have a valvular heart disease or prosthetic heart valve, her risk of bearing a child should be addressed early. If she wishes to get married or becomes sexually active, Family physician should help her to decide on an effective contraceptive method. Those who are without contraindications and wish to become pregnant, need to be assessed carefully for their cardiac status, valvular function, current medication, coexisting health problems and overall wellbeing of the person and discuss their individual risk of pregnancy. Family physician should coordinate the process

and provide shared care throughout pregnancy and puerperium as well.

Reference

1. Jordi Soler-Soler EG. VALVE DISEASE Worldwide perspective of valve disease. Heart [Internet]. 2000 [cited 2018 Nov 22];83:721–5. Available from: <http://heart.bmj.com/>
2. Seckeler MD, Hoke TR. The worldwide epidemiology of acute rheumatic fever and rheumatic heart disease. Clin Epidemiol [Internet]. 2011 Feb 22 [cited 2018 Nov 22];3:67–84. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21386976>
3. Carapetis JR, Steer AC, Mulholland EK, Weber M. The global burden of group A streptococcal diseases. Lancet Infect Dis [Internet]. 2005 Nov 1 [cited 2018 Nov 22];5(11):685–94. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/16253886>
4. Watkins DA, Johnson CO, Colquhoun SM, Karthikeyan G, Beaton A, Bukhman G, et al. Global, Regional, and National Burden of Rheumatic Heart Disease, 1990–2015. N Engl J Med [Internet]. 2017 Aug 24 [cited 2018 Nov 22];377(8):713–22. Available from: <http://www.nejm.org/doi/10.1056/NEJMoa1603693>
5. Nishimura RA, Catherine Otto C-CM, Robert Bonow C-CO, Carabello BA, Erwin III JP, Fleisher LA, et al. 2017 AHA/ACC Focused Update of the 2014 AHA/ACC Guideline for the Management of Patients With Valvular Heart Disease. Circulation [Internet]. 2017 [cited 2018 Nov 22];135:1159–95. Available from: <http://ahajournals.org>
6. Regitz-Zagrosek V, Blomstrom Lundqvist C, Borghi C, Cifkova R, Ferreira R, Foidart JM, et al. ESC Guidelines on the management of cardiovascular diseases during pregnancy. Eur Heart J. 2011;32(24):3147–97.
7. Family health bureau Sri Lanka. National Maternal Mortality Reviews - 2016 Outcome Dissemination. 2016;30.
8. Franklin WJ, Benton MK, Parekh DR. Cardiac disease in pregnancy. Texas Hear Inst J [Internet]. 2011 [cited 2018 Nov 13];38(2):151–3. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21494524>
9. Silversides CK, Grewal J, Mason J, Sermer M, Kiess M, Rychel V, et al. Pregnancy Outcomes in Women With Heart Disease: The CARPREG II Study. J Am Coll Cardiol [Internet]. 2018 May 29 [cited 2018 Nov 14];71(21):2419–30. Available from: <https://www.sciencedirect.com/science/article/pii/S0735109718342682>
10. Katherine E.; Anne Marie Valente. Mechanical Heart Valves in Pregnancy A Sticky Business. Circulation [Internet]. 2015 [cited 2018 Nov 10];(132):79–81. Available from: <http://circ.ahajournals.org>
11. Al-Lawati AAM, Venkitraman M, Al-Delaime T, Valliathu J. Pregnancy and mechanical heart valves replacement; dilemma of anticoagulation [Internet]. [cited 2018 Nov 10]. Available from: www.elsevier.com/locate/ejcts
12. Saima Salam, Saba Mushtaq, Khalid Mohi-ud-Din, Irfan Gul* AA. Maternal and fetal outcome in pregnancy with heart disease in tertiary care hospital in India. Int J Reprod Contraception, Obstet Gynecol [Internet]. 2017 [cited 2018 Nov 14];6(9):3947–51. Available from: <http://dx.doi.org/10.18203/2320-1770.ijrcog20174041>
13. Hou J-W. Fetal Warfarin Syndrome [Internet]. Vol. 27, Chang Gung Med J. 2004 [cited 2018 Nov 14]. Available from: <http://cgmj.cgu.edu.tw/2709/270908.pdf>
14. Roos-Hesselink JW, Cornette J, Sliwa K, Pieper PG, Veldtman GR, Johnson MR. Contraception and cardiovascular disease. Eur Heart J [Internet]. 2015 Jul 14 [cited 2018 Nov 15];36(27):1728–34. Available from: <https://academic.oup.com/eurheartj/article-lookup/doi/10.1093/eurheartj/ehv141>
15. Rathore S, Shankar R, Vijjeswarapu AP, Abraham A, Yadav B. International journal of reproduction, contraception, obstetrics and gynecology. [Internet]. Vol. 7, International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2018 [cited 2018 Nov 10]. 1949-1952 p. Available from: <http://www.ijrcog.org/index.php/ijrcog/article/view/4626/3462>

Extracts from 49th (25th February 1979) Annual Report of IMPA

Dr A H Hazari (Snr) & Dr I Joel Fernando

Association's relations with the State

1. Presidency

Mr. J. R. Jayawardene, the first Executive President of Sri Lanka, invited our President Dr. Hector Jayalath to a discussion on the subject of shortage of doctors in state health services on 19th June 1978. He requested our President to explore the possibility of obtaining the services of our membership to work on a part time basis in state health institutions. Subsequently, the Council met in emergency session and unanimously adopted the following resolution -

“Acceding to the request made by His Excellency the President of the Republic of Sri Lanka calling on the Independent Medical Practitioners; Association to help the Government in providing an efficient medical service to the people, the Council of the Independent Medical Practitioners' Association unanimously decided to urge the membership of the Association to offer their services in Government Health Institutions for one hour per day on a voluntary basis and this service be provided on a programme mutually agreed by the General Practitioner concerned and the Health Authority of the respective Government Medical Institution.”

The general membership was informed of the Council resolution.

We received several verbal and written communications from our members

expressing their willingness to offer their services to the State. We extend our sincere thanks to these members.

The Minister of Health invited a delegation from our association along with representatives from other professional associations to a meeting on 4th August 1978. At this meeting the Ministry agreed to place before the participating associations a detailed report on the exact position regarding the shortage of doctors. The association agreed to study this report and then meet the Permanent Secretary to the Health Ministry to draw up a plan to meet the doctor shortage. Accordingly, the associations met the Permanent Secretary on 11th August 1978. At this meeting the delegation from the association representing government medical officers put forward a scheme for the utilization of the spare time of government medical officers to meet the needs created by the doctor shortage. Our delegation extended our fullest support for this scheme and informed the Permanent Secretary that after implementing the proposed scheme if it fails to meet satisfactorily the needs created by the doctor shortage, our membership was prepared to step in and offer our services. To date we have received no further communication on this subject.

The long queues of patients outside state health institutions and the numerous disappointed and disgruntled patients from state institutions who inundate our clinics provide ample evidence that the doctor shortage continues to undermine

the effectiveness of the state health services. It is a matter for regret that the good intentions of the President of Sri Lanka and IMPA did not materialize into a form of concrete assistance for the ailing state health care delivery system.

2. Health Ministry

During the year under review, we had to communicate with the Health Ministry on three issues -

- i. The Council memorandum of 11th October 1977 to the Minister of Health.
- ii. Fellowships offered by the Austrian Government.
- iii. Cyclone relief work.

i. The Council memorandum of 11th October 1977 to the Minister of Health.

This memorandum outlined the view of the Council on what had to be done to provide a better health service for the people of Sri Lanka and also the problems our members faced when attempting to provide proper care for their patients. Having got no acknowledgment of the receipt of this memorandum, nor any evidence that the Ministry was acting on the issues raised in the memorandum, our predecessor wrote the following letter to the Minister of Health on 5th January 1978:-

“Dear Sir,

I write to inform you that the Independent Medical Practitioners’ Association has represented many matters to you and regretfully has not so far received adequate redress or a favorable reply. We would therefore be thankful if you would be good enough to grant us an interview preferable on a Friday to discuss among other matters the following items of major importance on which we have made prior representation.

1. Allocation of cars to General

Practitioners.

2. Entry of General Practitioners’ cars into hospital premises.
3. Facilities for the General Practitioner to see the patients referred by them outside normal visiting hours.
4. Regarding charges levied for tests requested by the General Practitioners.
5. Scholarships for General Practitioners.
6. Regarding consultation practice for Government Doctors and the recent directives.

An early reply will be greatly appreciated.

(Sgd.) Dr. G. M. Heennilame, Joint Honorary Secretary”

We received a reply to this letter by registered post at 10.45 am on 4th March 1978. The same day we wrote to the Minister the following letter:-

“Dear Sir,

In response to our letter dated 5th January 1978, we received a communication from the Secretary, Ministry of Health asking us to meet you on 3rd March 1978 at 10.00 am but we regret to inform you that this communication which was dated 23rd February 1978 was received under registered cover at 10.45 am on 4th March 1978. The registered cover conveying this communication postmarked 3rd March is enclosed herewith.

Therefore we kindly request you to give us an early opportunity to make our representations on the matters stated in the letter of 5th January 1978.

(Sgd.)Dr. I. J. Fernando, Joint Honorary Secretary”

We received no further communications on this subject from the Ministry. The correspondence cited shows the Ministry

response to representations made by the only national medical professional association in Sri Lanka that represents the interests of all medical practitioners in the Island who are not employed by the Health Department or the Universities.

ii. Fellowships offered by the Austrian Government

In late May we received a letter from the Ministry regarding an offer of fellowships in certain specialties by the Austrian Government. Later we were requested to nominate three members for the fellowships. In response to a notice displayed on our office notice board, we received two applications. We forwarded the papers of the two applicants to the Ministry.

It must be recorded here that this was the first occasion on which the Ministry thought it appropriate to inform us of fellowships sponsored by a foreign government. This change of attitude on the part of the Ministry is welcome. Perhaps it was the outcome of the association's repeated requests to the Ministry that in the award of scholarships and fellowships to doctors of Sri Lanka, the educational needs of the doctors who offer their services to the country outside the confines of the Health Department must be considered.

iii. Cyclone relief work

We informed the Ministry that our members were prepared to work on a voluntary basis to strengthen the medical services in cyclone affected areas. The Ministry invited a team of our members to work in Polonnaruwa district, the following doctors served in our team :-

Dr. H. M. Aloysius; Dr. Basil Gomes; Dr. D. F. de S. Goonawardene; Dr. M. L. M. Izzadeen; Dr (Mrs) A. Sansoni.

The service rendered by this team was symbolic of the commitment of our membership to work for the greater good of the nation.

It is evident from the three issues discussed that the relationship between the association and the Ministry of Health is showing an improving trend. However, it is our opinion that much more has to be done if this relationship is to grow to the level considered essential for proper functioning of a democratic society. Safeguarding the health of the nation is the duty and the responsibility of the ministry. The role of a national medical professional association like ours is to see that the Ministry is correctly advised before it embarks on far reaching policy decisions on what is good or bad for the health of the people of this country. We still do not have the necessary mechanisms through which we could advise the Ministry. Hence we recommend that this association take steps to initiate a National Advisory Council comprising representatives of national medical professional association. Such a Council could effectively advise the Ministry on all issues related to health which are of national importance.

3. Health Department

During the period reviewed in this report we had no direct dealings with the Health Department. The two outstanding issues that remained unsolved were :-

- (1) Our members right of entry to department run hospitals.
- (2) The denial of department laboratory facilities to patients referred by our members.

These and many other similar problems arising from the Health Department's relations with non-departmental health professionals could easily be settled if the

department and its senior administrators realize the important role played by the non-departmental sector in the health care delivery system of Sri Lanka. The general practitioner service and the occupational health service are two very important services that are directly concerned with health care at primary level. These services operate through the non-departmental sector. The department should take serious note of the existence of these services and its direct relevance to health care of the people at primary level.

Unlike with the Ministry, the laws governing the health department provide for advisory bodies such as the health council, regional hospital boards and hospital committees. These bodies in most instances are ineffective or non-functional. Our association has made repeated representations asking for our nominees to be included in these advisory bodies. We believe that if these advisory bodies are to function adequately and effectively our representation in such bodies is a fundamental prerequisite.

4. Representations and Memoranda

- (1) A memorandum dated 5th January 1978 was presented to the commission of inquiry into the organization of the State Pharmaceuticals Corporation. Oral submissions were made before the commission on 3rd March. The submissions were on tenders, distribution of drugs, import of raw materials and range of drugs available for distribution.
- (2) A memorandum dated 31st January 1978 was presented to the committee to review and amend health legislation. The memorandum carried proposals to include representatives of the association when constituting the Medical Council, Health Council, regional hospital boards and hospital committees.

- (3) A memorandum dated 10th October 1978 was presented to the committee to examine synthesis of indigenous medical systems and western medical systems.

Association's Relations with Statutory Bodies and Professional Associations

1. State Pharmaceutical Corporation

Since the inception of this all important corporation, our association has been closely following its growth and development. Whenever and wherever possible the association tried to ensure that our members obtained the required quantities of quality drugs from the corporation. The late Professor Senaka Bibile, the corporation's first Chairman, along with senior office-bearers of the IMPA created the climate for the growth of a mutually beneficial relationship between the corporation and the association. The corporation had an Advisory Committee in which two representatives of the association were involved. Our members, requests for drugs were given priority treatment. Every assistance was given to keep the association's Drug Centre well supplied. The entire cost of publishing our journal the Sri Lanka Practitioner was met by the corporation. In short it could be stated that our Association's relations with the corporation provided an ideal model of how the relationship between a state organization and national professional association should be, in a democratic society. We are confident that the present Chairman and members of the Board of Directors of the State Pharmaceuticals Corporation will continue to further strengthen this important relationship.

2. Sri Lanka Association of Community Medicine

We had a series of consultations with representatives of the Sri Lanka Association of Community Medicine on the subject,

how to improve the country's community based health services. The final outcome of these consultations was a two day national seminar on caring for the community. The recommendations made at the concluding sessions of this seminar are being studied by the two associations. It is proposed to place these recommendations before the appropriate authorities for necessary action.

3. Government Medical Officers' Association.

Dr. D.R. Karunaratne, President, GMOA was invited to address the Council on the subject of a National Health Service for Sri Lanka. In the discussion that followed his address, three views were expressed by different groups of councilors.

The first group felt that the country that could ill afford to manage and run the existing health services satisfactorily did not have the finances or the personnel to run a national health service. Hence, the proposal for a national health service should be shelved to be-reviewed later when the country and people are prepared for such a service.

The second group wanted the national professional associations to sponsor a seminar to discuss the proposal.

The third group requested that the GMOA and the IMPA set up a joint working party to study the possibility of establishing a national Health service.

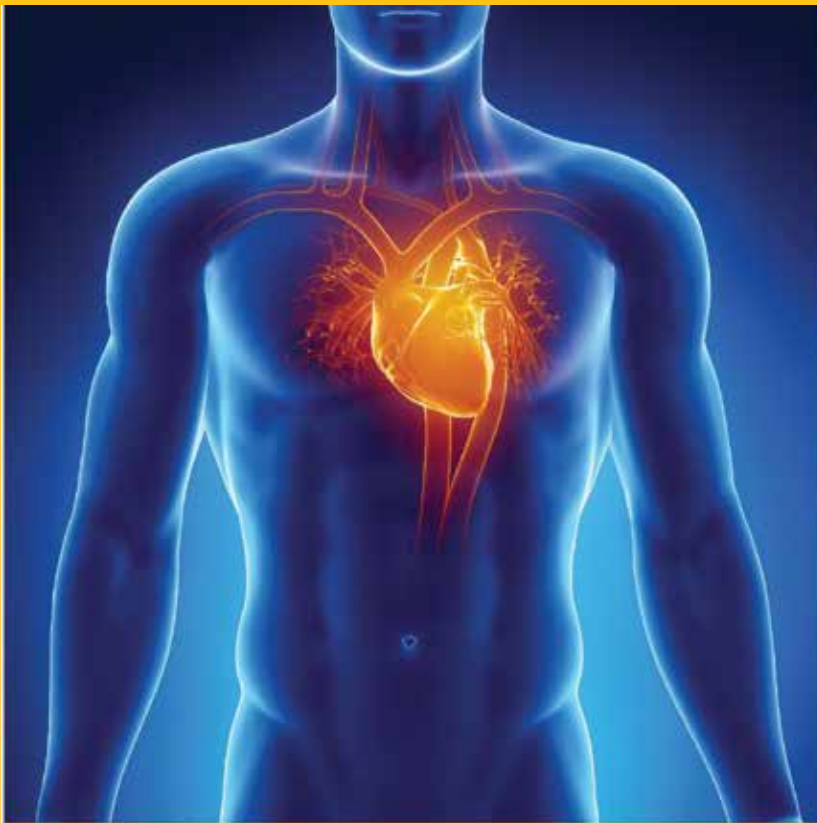
4. Representation

The following members served as the associations representatives:-

- (1) Dr. B. D. J. S. Fernando and Dr. D. H. P. R. Senanayake on the National Formulary Committee.
- (2) Dr. B. D. J. de Silva on the Tender Board of the State Pharmaceutical Corporation.
- (3) Dr G. M. Heennileme - Metrication Board, Bureau of Standards and the Organization of professional Association

Extracts were drawn from the OPA Journal (June 1979) Volume 2 No. 1

Dr A H Hazari (Snr) & Dr I Joel Fernando



CT ANGIOGRAPHY
BY THE WORLD'S
FASTEST
AND
MOST ACCURATE
640 SLICE
CT SCANNER



NAWAOKA HOSPITALS PLC

RADIOLOGY DEPARTMENT

For Information: 0767663253

IN PATIENTS WITH T2DM AND
ESTABLISHED CV DISEASE,*

CV DEATH HAS A NEW OPPONENT



Jardiance®
(empagliflozin)

Available as: 10 mg | 25 mg

38%

**RRR IN
CV DEATH†
ON TOP OF
STANDARD
OF CARE^{1-3‡}**

HR=0.62
(95% CI: 0.49, 0.77)
P<0.001

The Original
empagliflozin

**THE ONLY
OAD APPROVED**

to reduce risk of CV death in
T2DM patients with established CVD.^{1§}



For further medical information, please write to: **Boehringer Ingelheim India Pvt. Ltd.**,
11th Floor, Hattarak Business Plaza, C-10, Naray Hospital Road,
New Gurgaon Hospital, Bandra East, Mumbai-400 051, India.
For any therapeutic area or product related information please contact:
medical.query.in@boehringer-ingelheim.com or via toll-free number: 1800 227 887

C/O HEMAS PHARMACEUTICALS (PVT) LTD.
No.12, Glen Aber Place
Colombo 03, Sri Lanka
+94 77 29761612

© 2015 Boehringer Ingelheim