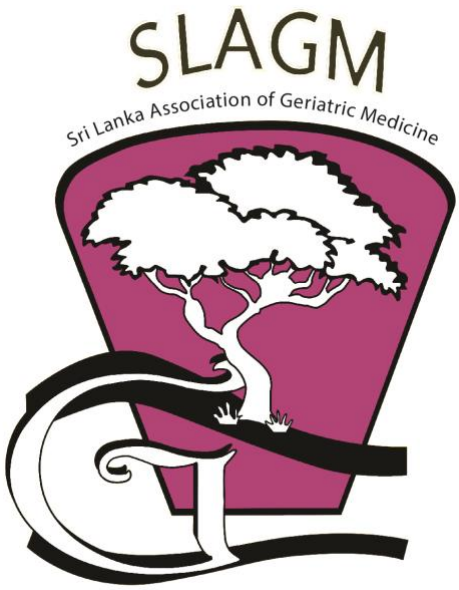

Second Annual Academic Sessions

Sri Lanka Association of Geriatric Medicine

2015

'Ensuring Dignity in Silver Age'

Programme and Abstracts

19th and 20th of November 2015

Colombo

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2015

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Message from the President of the Sri Lanka Association of Geriatric Medicine

It is with great pleasure I deliver this message at the 2nd Annual Academic Sessions of the Sri Lanka Association of Geriatric Medicine.

Sri Lanka is currently undergoing a dramatic demographic transition with a rapidly ageing population. One out of four will be elderly (over 60 years) in 2041 in Sri Lanka. In preparation to face this challenge it is necessary to educate and to create awareness in Geriatric Medicine among the medical fraternity with continuous medical educational activities.

We are proud to hold our 2nd Annual Academic Sessions within just two years of its inception with the participation of local and international experts in Geriatric Medicine. The theme of our Academic sessions this year is "Ensuring Silver Age with Dignity". The vibrant academic programme will address approach to common medical problems and geriatric syndromes which will enrich the participants with updated information and knowledge in Geriatric Medicine.

Comprehensive Geriatric Assessment with multidisciplinary involvement needs to established in our health system to develop Geriatric Medicine in the country. A novel addition to our programme this year is the Pre congress demonstrating "Multidisciplinary team in Geriatric Care" which will be attended by doctors,nurses,physiotherpaists,occupational therapists and social workers. The objective of this pre congress is to discuss problems of a patient in a forum consisting of members from multiple disciplines emphasizing the importance of the role of each member in comprehensive geriatric assessment.

We are pleased to have Dr Jacob Kumerasan, World Health Organization Representative to Sri Lanka as our chief guest. I am also grateful to our guest of honour Dr Robert J Prowse, Director, Department of Geriatric and Rehabilitation Medicine, Royal Adelaide Hospital, Australia for accepting our invitation to grace this occasion. I warmly welcome the faculty at this Academic Sessions consisting of eminent speakers from Sri Lanka, Australia, France, India, Singapore and United Kingdom.

Organizing an activity of this nature indeed is a mammoth task which is possible because of the untiring efforts of the members of the council and the organizing committee. I wish to thank all speakers, chairpersons, and participants who have contributed to make this event successful. I am most grateful to our corporate sponsors for making this event a reality.

I look forward to a fruitful and mind stimulating Academic Sessions and wish that our efforts would lead to a happy and bright Silver age. I wish all the speakers good luck and wish all success to Annual Academic Sessions of the Sri Lanka Association of Geriatric Medicine.

Dr Dilhar Samaraweera

Message from the Honorary Secretary of the Sri Lanka Association of Geriatric Medicine

Sri Lanka Association of Geriatric Medicine (SLAGM) is ready to start the second Annual Academic Sessions for 2015.It is my pleasure to pen this message of felicitation to the book of proceedings of the Annual Academic Sessions of the SLAGM.

It has been a very successful and a active year and a half for our Association since we started off in February 2014.I am very pleased and humbly proud of the achievements of the SLAGM and look forward to a vibrant Academic Sessions this year. This year our theme is "Ensuring Dignity in Silver Age" and we have prepared a contextually rich academic program to cover all the major Geriatric problems encountered in day to day clinical practice with the participation of a panel of expert Geriatricians from Australia, India ,Singapore, France and the United Kingdom. This year, we have also organized a pre-congress session to introduce the Multi-Disciplinary Care approach which is an integral part of a Geriatric ward set up and Geriatric Practice in the community.

As the Secretary of the SLAGM I take this opportunity to thank our special invited guest speakers who have come forward to help us with the academic program specially Dr. Robert Prowse and Dr. John Maddison from Adelaide Australia, Dr Lim Wee Shiong from Singapore, Dr. Matteo Cessari from France and Dr.Prasad Mathews from India and Dr. Chandana kanakaratne from the United Kingdom. I greatly appreciate your extended support to make our sessions productive and attractive. The assistance rendered by our past diploma holders and present batch of students was a tower of strength and organize this event and my sincere thanks to all of you. I also wish to thanks to all our sponsors on behalf of the Council of SLAGM to the Pharmaceutical industry for extending their support to make this event a success.

Disseminating knowledge and encouraging proper skills among the doctors who care for the older people would hopefully help to improve the dignity and ensure good health and happiness in silver age among our senior citizens. SLAGM is dedicated for this noble concept and hope next year we would be able to produce more high quality research paper session during our academic program. I wish to appeal to all those who have a in the field of geriatric Medicine to come and join our Association to explore new horizons in Geriatric Medicine and to enhance the quality of life of our older members of the society.

I look forward to a vibrant academic sessions on the 20th of November!

Dr.Achala Balasuriya

Honorary Secretary SLAGM

Message from the Chief Guest

Message from the Guest of Honour

Why establish a Geriatric Service in a Developing Country?

Geriatric Medicine becomes more important as the numbers of older people in a country's population begin to rise. This first occurred in developed countries in Europe, North America and Japan but is now being experienced elsewhere as survival into later life becomes a factor in population distribution in many developing countries. In Sri Lanka, 12.2% of the population in 2012 census was >60 years. This is expected to rise to 24.8% by 2041. This phenomenon has been called the Demographic Transition. Ageing is associated with a series of challenges to health which are different to those occurring in younger members of a population. Chronic disease becomes more prevalent and accumulates, leading to complex co-morbidity and polypharmacy. Ageing itself leads to losses of function in all body systems. Presentation of disease changes; a number of syndromic patterns, for example falls, become the common reasons why people come to health systems. These presentations (The Geriatric Giants) have complex aetiology which is often not immediately apparent and usually involves multiple factors including acute and chronic illnesses and their treatment, effects of ageing and functional decline. Geriatricians uniquely have the training, interest and skills to deal with the health challenges of later life. All Health Services in countries experiencing increasing numbers of older people need to be developing services equipped to effectively manage their care.

Robert J Prowse M.B.,B.S.; FRCP

Department of Geriatric Medicine Royal Adelaide Hospital

Pre-congress Workshop

'Multidisciplinary Team in Geriatric Care'

Date: 19th Thursday, November 2015

Time: 8.30 a.m. to 12.10 p.m.

Venue: Waters Edge, Battaramulla

8.30 a.m. – 8.50 a.m.	**Introduction to Multidisciplinary Team in Geriatric Care** ***Prof. Chandrika Jayasinghe***	
	Simulation of Multidisciplinary Team Care in Geriatrics - I	
	Clinical Case Discussion in	
8.50 a.m. – 9.30 a.m.	**Rheumatology**	*Dr. Lalith Wijayaratne and team*
9.30 a.m. – 10.10 a.m.	**Neurology**	*Dr. Padma Gunaratne and team*
10.10 a.m. – 10.30 a.m.	TEA	
10.30 a.m. – 10.50 a.m.	**Practical Guide to Nutritional Assessment in Elderly** ***Dr. Matteo Cesari (France)***	
	Simulation of Multidisciplinary Team Care in Geriatrics - II	
	Clinical Case Discussion in	
10.50 a.m. – 11.30 a.m.	**Geriatric Medicine**	*Dr. Barana Millawithana and team*
11.30 a.m. – 12.10 p.m.	**Orthopaedics**	*Dr. Chandana Karunathilake and team*
12.10 p.m.	LUNCH	

Inauguration Ceremony
of the Second Annual Academic Sessions

Date: 19th Thursday, November 2015
Time: 6.00 p.m. to 9.00 p.m.
Venue: Hotel Galadari, Colombo

6.00 p.m.	Invitees take their seats
6.10 p.m.	Arrival of Chief Guest
6.15 p.m.	Introduction of the Council to the Chief Guest and Guest of Honour
6.20 p.m.	Ceremonial procession
6.30 p.m.	National anthem
6.35 p.m.	Lighting of oil lamp
6.40 p.m.	Welcome address by **Dr. Lalith S. Wijayaratne**,
`	Founder, Sri Lanka Association of Geriatric Medicine
6.45 p.m.	Address by **Dr. Dilhar Samaraweera**,
	President, Sri Lanka Association of Geriatric Medicine
6.55 p.m.	Address by **Dr. Jacob Kumaresan**,
	WHO Representative to Sri Lanka,
	Chief Guest
7.15 p.m.	Address by **Dr. Robert Prowse**,
	Guest of Honour
	'Why establish a geriatric service in a developing country'
7.30p.m.	Address by **Dr. John Maddison**
	'Hands on experience in establishing a geriatric service –challenges and pitfalls'
7.45 p.m.	Vote of thanks by **Dr. Achala Balasuriya**,
	Honorary Secretary, Sri Lanka Association of Geriatric Medicine
7.55 p.m.	Cultural performance
8.15 p.m.	Procession leaves the hall
8.25 p.m.	Reception

Academic Sessions

'Ensuring Dignity in Silver Age'

Date: 20th Friday, November 2015

Time: 8.00 a.m. to 4.15 p.m.

Venue: Waters Edge, Battaramulla

8.00 a.m. – 9.00 a.m.	Registration
9.00 a.m. – 9.25 a.m.	Plenary 1 **Delirium** *Dr. Robert Prowse (Australia)*
9.25 a.m. – 10.25 a.m.	Symposium 1 **Evidence-based Practices in Geriatric Medicine**
	Diabetes Mellitus - *Dr. Noel Somasundaram*
	Hypertension - *Dr. Ruwan Ekanayaka*
	Bone Health - *Dr. Uditha Bulugahapitiya*
10.25 a.m. – 10.50 a.m.	Plenary 2 **Dementia and caregiver stress** *Dr. Lim Wee Shiong (Singapore)*
10.50 a.m. – 11.10 a.m.	TEA
11.10 a.m. – 12.10 p.m.	Symposium 2 **Frailty**
	Diagnosis of Frailty - *Dr. Chandana Kanakaratne (UK)*
	Managing Frailty in Resource-poor Setting - *Dr. Prasad Mathews (India)*
	Nutritional Support in Frailty Prevention - *Dr. Matteo Cesari (France)*
12.10 p.m. – 12.35 p.m.	Plenary 3 **Comprehensive Geriatric Assessment** *Dr. Prasad Matthews (India)*
12.35 p.m. – 1.00 p.m.	Plenary 4 **Chronic Pain Management in Elderly** *Dr. John Maddison (Australia)*
1.00 p.m. – 2.00 p.m.	LUNCH
1.00 p.m. – 1.30 p.m.	Free paper session
2.00 p.m. – 3.00 p.m.	Symposium 3 **Ethical & Legal Issues in Elderly Care- Case based discussion**
	Dr. John Maddison (Australia)
	Dr. Panduka Karunanyake
	Mr. Yasantha Kodagoda
3.00 p.m. – 3.25 p.m.	Plenary 5 **Nutrition in Elderly** *Dr. Matteo Cesari (France)*
3.25 p.m. – 3.50 p.m.	Plenary 6 **Urinary Incontinence** *Dr. Robert Prowse (Australia)*
3.50 p.m. – 4.15 p.m.	Plenary 7 **Into the Silver Age, Healthy and Productive** *Dr. (Mrs) Anula Wijesundara*
4.15 p.m.	TEA

Faculty

Prof. Chandrika Jayasinghe
Consultant Physician

Dr. Lalith S. Wijayaratne
Consultant Rheumatologist
National Hospital of Sri Lanka

Dr. Padma Gunaratne
Consultant Neurologist
National Hospital of Sri Lanka

Dr. Matteo Cesari MD, PhD
Gérontopôle, Centre Hospitalier Universitaire de Toulouse, Toulouse, France

Dr. Barana Millawithana
Consultant Physician

Dr. Chandana Karunathilake
Consultant Orthopaedic Surgeon

Dr. Robert J. Prowse M.B.,B.S., FRCP
Consultant Geriatrician
Director, Department of Geriatric Medicine,
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Dr. Noel Somasundaram
Consultant Endocrinologist
National Hospital of Sri Lanka

Dr. Ruwan Ekanayaka
Consultant Cardiologist
Colombo

Dr. Uditha Bulugahapitiya
Consultant Endocrinologist
Colombo South Teaching Hospital

Dr. Lim Wee Shiong
Consultant Geriatrician
Tan Tock Seng Hospital, Singapore

Dr. Chandana Kanakaratne
Consultant Geriatrician
United Kingdom

Dr. Prasad Mathews
Consultant Geriatrician
Christian Medical College, Vellore, India

Dr. John Maddison
Consultant Geriatrician
Director, Aged Care and Rehabilitation
Services, Northern Adelaide, Australia

Dr. Panduka Karunanyake
Consultant Physician
National Hospital of Sri Lanka

Mr. Yasantha Kodagoda
Additional Solicitor General
Attorney Generals
Department, Colombo

Dr. (Mrs) Anula Wijesundara
Consultant Physician
Sri Jayewardenepura General
Hospital, Colombo

Chairpersons

Abstracts of the Guest Lectures

Hands on Experience in Establishing a Geriatric Service – Challenges and Pitfalls

Dr. John Maddison

Geriatric Medicine has been a well established specialty with strong leadership in Australia for over 30 years and has continued to expand during this time. In 2008 we had the opportunity to develop Geriatric Medicine in one of the last remaining greenfield sites in a metropolitan city in Australia. Developing the Northern Adelaide Geriatrics Service has represented considerable challenge. To convince others of the value of Geriatric Medicine we need to be confident in our specialty and the level I evidence of the effectiveness of Comprehensive Geriatric Assessment. We need to be able to articulate the demographic demand for services designed to meet the needs of older patients with multiple morbidity. We need to produce ongoing evidence of need and efficacy. Perhaps the most important aspect is we need to be able to clearly articulate to administrators, clinicians and patients "What is Geriatric Medicine".

Delirium

Dr. Robert J. Prowse

Delirium is an acute confusional state characterised by a disturbance in consciousness with reduced ability to focus, sustain or shift attention. It is the Geriatric Giant which perhaps most particularly demands input from Geriatricians. It is also more likely to be found in inpatient settings, where its difficulty to detectfurther complicates complex management. The fact that underlying brain disorders, especially dementia, are major risk factors makes diagnosis even more difficult. The time course of the illness is critically important but, as the affected person is characteristically incapable of providing any history, obtaining the relevant details, together with other significant factors such a past medical history and medication use can be difficult and time-consuming. The precipitating causes are many, but identification of likely causes often suggests appropriate courses of management. Delirium is considered reversible, but there is increasing evidence of chronicity and permanent cognitive impairment. There is no reliable prevention but reducing modifiable risk factors can reduce the incidence. Management should be multimodal and include removing any precipitating cause, reducing agitation and employing non-pharmacological measures where possible. Pharmacological therapy is widely employed, despite there being few satisfactory studies of efficacy.

Diabetes Mellitus in the Elderly

Dr. Noel Somasundaram

Hypertension in the Elderly

Dr.Ruwan Ekanayake

60% of patients over the age of 60 years develop hypertension. Life style factors (increase in body weight, smoking, reduction in physical activity, and increase in salt intake) and non-lifestyle factors (stiffness of arteries, endothelial dysfunction, autonomic dysregulation, renal dysfunction) contribute towards hypertension in the geriatric age group. Post prandial hypotension and Pseudo hypertension must be kept in mind when recording BP in the elderly.
As in the younger age groups, hypertension in the elderly affects the heart, central nervous system, kidneys, eyes and aorta. The Hyvet study indicates that in octogenarians a target BP for adequate control could be 150/90mmHg. A plan of 'start low- go slow' is applicable when prescribing anti-hypertensive medication. The commonly used antihypertensive agents can be used in the elderly too- diuretics, ACEI, ARB, CCB, β blockers, α blockers and the centrally acting drugs. A tailored care approach is better suited when choosing a drug for the elderly.

Bone Health in the Elderly

Dr. Uditha Bulugahapitiya

Bone serves many mechanical and homeostatic functions. With aging, these functions become impaired, bone becomes more fragile and less able to perform its mechanical functions.
This dynamic organ undergoes a continual self-regeneration process called remodeling. With aging, the balance of bone remodeling shifts in a negative direction, favouring greater bone resorption and less bone formation, mostly due to an age related shift from osteoblastogenesis to predominant adipogenesis in the bone marrow. Age related sex hormone deficiency has significant effects on this process. Reduced physical activity and mechanical loading associated with aging exert diminished effects upon osteoblasts resulting in decreased osteoblast activity and bone formation. Elderly people are more prone to falls due to many intrinsic and extrinsic factors and this increases the fracture prevalence.
Vitamin D deficiency is prevalent in the older population irrespective of latitude due to dietary factors and reduced sun exposure. A diet low in calcium may cause an increased turnover of vitamin D metabolites and thereby aggravate vitamin D deficiency. It adversely effects the bone mineralization, osteoblastogenesis and bone formation leading to osteomalacia. Resultant secondary hyperparathyroidism worsen the bone resorption and bone loss.
Paget's disease is another troublesome bone pathology prevalent among elderly. Its main problem is disturbed bone resorption and subsequent immature bone formation. It has many local and systemic consequences on the patient.
Cancer related bone disease is another increasingly identified problem in elderly which has many diagnostic and management dilemmas.
Actions should be initiated at a younger age for better bone health in elderly. Avoidance of adverse factors which fasten the bone resorption, achievement of maximal peak bone mass is the way to slow down the bone aging. Bone disease in elderly should be properly evaluated and treated to minimize its related morbidity.

Dementia and Caregiver Stress: An Asian Perspective

Dr.Lim Wee Shiong

With some of the fasting growing aged populations in the world, Asia is poised to experience an exponential rise in disease burden from dementia. While encouraging advances have been made in the understanding and holistic management of dementia, the translation of evidence-based dementia care to Asian populations presents unique and myriad challenges in terms of prevailing attitudes and beliefs, socio-cultural norms, access to care, and a relative lack of published Asian studies.

This presentation is divided into four sections. Firstly, I will first discuss the implications of the demographic and epidemiologic transition to dementia care in the Asian setting. Next, drawing upon the evidence from key studies, I will present threshold concepts that are central to a holistic approach to dementia care. As an example of translating evidence to practice, I will then discuss some recent developments in the understanding of caregiver burden, with particular emphasis on the relevance and applicability to the Asian context. Finally, I will share some thoughts about how we need to develop our unique "Asian-centric" approaches undergirded in evidence-based practice, in order to rise to the challenge of providing salient and innovative solutions for dementia care in a rapidly changing Asian landscape.

Diagnosis of Frailty

Dr.Chandana Kanakaratne

Frailty is a distinctive health state associated with ageing process and reduction in reserves in multiple body systems leading to significant outcomes following exposure to minor internal or external events such as a fall or an uncomplicated infection.

Lack of an operating definition poses problems but many attempts had been made to define and identify frailty. Comprehensive Geriatric Assessment is a vital tool but may not be practical in a busy medical ward or at the front door or in the outpatient set up due to time needed to complete it. Many tools had been proposed but PRISMA 7, walking speed and timed up and go tests are preferred by some, as suggested by British Geriatric Society. These can be used to screen patients with frailty for subsequent more comprehensive assessments.

Frailty is confused for many other situations such as disability but needs to be considered in its own merit as the consequences of failure to identify and manage it can be catastrophic for the health and the wellbeing of an older person.

Managing Frailty in Resource-poor Setting

Dr. Prasad Mathews

Once frailty is diagnosed in an older person, the first step would be to carry out a comprehensive geriatric assessment. An initial step could be to have an assessment by a health worker using the WHO tool kit. Nutritional status and the reason for malnutrition need to be assessed. Malnutrition could be due to socioeconomic factors and neglect. A thorough history and examination and available laboratory investigations should be carried out to detect medical problems. Tuberculosis and malignancy have to be diagnosed using available diagnostic modalities. Geriatric syndromes and their causes have to be identified and dealt with. The medication list has to be obtained and rationalized. Mobility, falls risk and environmental modification have to be assessed and addressed with locally available resources using principles of community based rehabilitation.

All reversible medical problems have to be dealt with and treated. A problem list and care plan needs to be made and maintained by the health care worker. Vitamin D, other vitamin and calcium supplementation can be

administered without testing in resource poor settings. The only interventions shown to be useful in primary frailty are nutritional supplementation and exercise. In poor elderly, involvement of non governmental agencies can be attempted to obtain at least one good meal a day. High protein supplements can be administered using cheap, locally available protein rich foods. Safe mobility and walking should be maximized and resistance training can be taught to build up muscle strength in core groups of muscles.

Nutirtional Support in Frailty Prevention

Dr. Matteo Cesari

Frailty is a geriatric syndrome characterized by decreased reserves and diminished resistance to endogenous and exogenous stressors. In order to successfully treat such detrimental condition, it has been recommended the adoption of multidomain interventions. Taking into account the nature of such multidimensional approach, it is important to design and implement actions of easy generalizability to a large population and characterized by being acceptable to not necessarily “medicalized” individuals. In this context, behavioral modifications are of particular interest. Moreover, preliminary experiences have demonstrated that frail older persons present a high prevalence of malnutrition for several micro- and macro-nutrients. Targeting such deficits (in particular, concerning vitamin D and proteins) may indeed correct important components of the frailty condition and help at restoring robustness in vulnerable older persons.

In this presentation, current evidence and novel data will be presented about 1) the importance of a balanced nutrition for the maintenance of a healthy status at old age, 2) the key role that nutrition may play in multidomain interventions against frailty, and 3) the nutritional aspects of higher relevance for designing effective strategies against the onset of negative health-related events in elders.

Comprehensive Geriatric Assessment

Dr. Prasad Mathews

Comprehensive geriatric assessment (CGA) is the process of intensive multidisciplinary assessment and treatment of an elderly individual across multiple domains that identifies medical, psychosocial and functional problems to develop a plan to maximize healthy aging. The domains covered include physical, affective, functional, cognitive, social, financial, environmental and spiritual areas. The core multidisciplinary team in western countries usually consists of a physician, nurse and social worker. Expertise of other health care professionals such as physiotherapists, occupational therapists, pharmacists, dietitians, psychologists, dentists, audiologists etc can be drawn on as required.

CGA can be carried out in settings such as the home, outpatient area, hospital or long term care facility and the process varies accordingly. Indications for CGA include a diagnosis of frailty, geriatric syndromes such as delirium or dementia or falls, major medical problems such as cancer or heart failure and advanced age. The process of CGA includes data collection, team discussion, development and implementation of a treatment plan and monitoring the plan. Electronic medical records are increasingly important in data collection. Newer CGA programs concentrate on primary and secondary prevention.

Meta analysis of CGA data have shown that home based CGA reduces functional decline and mortality. Inpatient CGA in rehabilitative units were associated with better functional status, decreased discharges to long term care and lower mortality. Outpatient CGA has been shown to decrease functional decline and improve social functioning.

Comprehensive geriatric assessment programs need to be implemented in areas caring for large numbers of older people to improve outcomes.

Chronic Pain Management in the Elderly

Dr. John Maddison

Over one half of adults over 65 report pain severe enough to interfere with function. The rate is higher in nursing home patients. The consequences of pain are significant and include depression, decreased socialisation, sleep disturbance, poor mobility and increased health care costs. Furthermore there is a moral imperative to treat pain. In clinical practice chronic pain in older people has often been approached in the same manner as cancer pain: simple analgesics then "weak" opiates followed by strong opiates. In Australia there has been massive growth in the prescription and dispensing of opiates, much of this in older people. This is despite the weak evidence base for opiates in the treatment of chronic non-cancer pain and increasing concern with regard to both on-target and off-target (e.g. neuroendocrine side effects). Similarly non-opiate drug alternatives also have generally weak evidence in the treatment of chronic non-cancer pain and numerous adverse drug effects which are more likely to occur in older people with limited physiological reserve, multiple morbidity and polypharmacy. In chronic pain the foundation of treatment needs to be proper diagnosis, patient education and non-pharmacological approaches, supplemented by judicious use of the available pharmacotherapy. This can be difficult to achieve in clinical practice.

Nutrition in Elderly

Dr. Matteo Cesari

Urinary Incontinence

Dr. Robert J Prowse

Urinary incontinence, an involuntaryloss of urine, is often undetected and undertreated. Unlike the other Geriatric Giants, it is not associated with increased mortality but has major negative impact on quality of life. It is common in women, 26-61%of community dwelling women seeking treatment. It can be conveniently divided into potentially reversible and persistent incontinence. Persistent incontinence can be classified into stress, urge, overflow and functional incontinence. Much of the assessment can be made on detailed history taking. This can identify potentially reversible causes and classify type of incontinence to direct treatment. Physical examination is focussed on abdominal, rectal and vaginal examination.Urodynamic testing is not routinely required but can be helpful, especially in determining the cause of urinary retention and when surgical treatment is being considered. Management includes modifying or treating contributing factors, behavioural interventions and, particularly for urge incontinence, pharmacological interventions. Most commonly these are anticholinergic agents, the side effects of which limit their use in older people, especially in those at risk of or with established cognitive impairment.

Into the Silver Age, Healthy and Productive

Dr. Anula Wijesundere

This is "the age of the aged". Increased longevity has resulted from the unprecedented improvements in social and living standards and vast strides in medical diagnosis, investigations, therapeutics and life saving procedures such as angioplasty, bypass surgery and organ transplants which have added decades to life and improved the quality of life as well.

Over the ages, there has been a dramatic reversal in our attitude towards aging. What was earlier accepted as a natural phenomenon is no longer accepted by many in today's world. There are many theories of aging such as, the cumulative injury theory, immune theory, the role of stress and inflammation and more recently, the telomere biological clocks theory.

Neuroplasticity with mindfullness meditation and Alzheimer's disease with beta amyloid deposits are the new frontiers in geriatrics medicine. Assessment for frailty or pre frailty in old people is important so that action can be taken before the irreversible cascade of disability commences.

To improve the quality of life in the elderly and add life to years, it is important to live well, exercise well, eat wholesome food in moderation, to avoid alcohol and tobacco and develop a positive attitude to life.

DHA has now been showed to improve immunity, maintain brain function and reduce risk of Alzheimer's and dementia. The expanding role of vitamin D3 in supporting cardiovascular health by reducing arterial calcium deposits should be appreciated apart from its role in improving bone health.

The elderly should keep their minds alert with the vast strides in IT, access to internet, google, fcaebook, etc. With these achievements, along with social and financial support our elderly folk would certainly be healthy and productive.

Abstracts of Oral Presentations

Incidence, immediate consequences, associated factors and health seeking behaviour related to falls among elderly in Medical Officer of Health area Elapatha

[1]Gunawardana B.M.I. and [2]Ranasinghe R.D.S.

Introduction
Rapid population ageing is predicted in Sri Lanka. Elderly people are more vulnerable to falls and it is the most common cause of mortality and morbidity in the elderly. The consequences of falls will affect to the quality of life of the elders.

Methods
A community based descriptive cross sectional study was conducted in MOH area Elapatha. Cluster sampling technique was used to select the elders, and 510 elderly were selected using the probability proportional to the size of the population technique. Retrospective data on falls during previous three months were collected using an interviewer administrated questionnaire.

Results
Overall, 64 participants had falls within the three months of study. Cumulative incidence during past three months was 12.7 (95% CI = 10.0 - 15.9) falls per 100 elderly.
Higher age (75 years and above) (OR = 2.8; 95% CI = 1.2 – 6.7, p = 0.014), females (OR = 1.8; 95% CI = 1.0 – 3.0, p = 0.042), and elders with education level less than grade five were significantly associated with falls (OR = 1.8; 95% CI = 1.0 – 3.0, p = 0.035). Hazardous environmental conditions were associated with most (59.4%; n = 38) of the falls. Injurious falls occurred in 35.9% (n = 23) of cases. Most (41.4%; n = 12) of the fall victims had received western treatment.

Conclusion
This study shows a high cumulative incidence of falls among the elderly for a three months time period. Most of the falls in this study setting is preventable, which happened due to hazards in the environment.

[1]Medical Officer – Public Health, Provincial General Hospital – Rathnapura and [2]Consultant Community Physician, PDHS Office - Sabaragamuwa

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Health problems and multimorbidity among elderly patients attending a University Family Practice in Sri Lanka

[1]Ediriweera de Silva RE, [2]Perera MSA

Introduction
Population ageing has been associated with an increase in the prevalence of chronic diseases. Majority of these elderly people will be living in developing countries, particularly in Asia, where more than half of the world's over-sixty population currently resides.

Objective
To describe the common health problems in the study population and its impact on Quality of Life (QOL)

Methods
A descriptive cross sectional study, among 140 elderly (60 years and older) attending a University Family Practice Centre. A pre-tested interviewer administered questionnaire and medical records were used for data collection. Data was analysed using SPSS package with descriptive statistics and t test.

Results
The majority of participants in this study (51.4%) were in the 60-69 year age group, with a higher proportion of females (65%). The commonest symptoms among the study participants were problems related to musculoskeletal system, respiratory tract, urinary problems and teeth, gum and mastication problems. Chronic diseases were among the highest morbidity in this study population. Increased number of health problems was significantly associated with QOL with presence of 3 or more health problems resulting in poorer QOL. Multimorbidity was seen in more than half of the study population accounting to 80 (57.1%).

One-third of the study population, 49 (35%) were admitted to hospital at least once in the last year. Seventeen percent of study participants have had a fall in the previous year.

Conclusions
Chronic diseases and multimorbidity were common in this population. Increasing health problems contributed to poorer QOL.

[1]Lecturer, Family Medicine Unit, Faculty of Medicine, University of Colombo and [2]Professor and Consultant to the Department of Family Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda

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Safely reducing inappropriate prescribing to the older adults with polypharmacy: the multinational PRIMA-eDS study

[1] Ediriweera de Silva R.E., [2]Reeves D., [3]Hoeck J., [4]Johansson T., [5]Kunnamo I., [6]Piccoliori G. and [7,8]Soennichsen A. on behalf of the PRIMA-eDS Consortium

Introduction
PRIMA-eDS* is an EU Commission funded project across 5 European countries to develop and trial an electronic decision support (eDS) tool for family practitioners to help reduce polypharmacy in the elderly.

Objectives
To carry out a systematic review ofevidence on benefits and harms of common medications in older adults with polypharmacy and to develop and test the eDS-tool through a multinational cluster-randomised controlled trial.

Methods
A series of staged literature searches to systematically review the evidence and develop age-specific recommendations (GRADE methodology). Databases searched: Cochrane Database of Systematic Reviews; DARE; MEDLINE; EMBASE; HTA and IPA.
Development of the eDS tool: the tool reviews individual patient medication regimes against the recommendations from the systematic reviews (SRs), known drug-drug interactions; risks of adverse events, recommended dosages and other considerations, and provides summary advice.
Multinational (4 countries) cluster-randomised controlled trial (RCT) over 24-months to evaluate the eDS tool, involving about 300 GPs and about 3,500 patients over the age of 74 years with polypharmacy of over 7 drugs.

Results
21 SRs on 18 drug classes have been performed. In total, 259 studies were included. Most evidence for older people was low quality and from subgroup analyses. Nevertheless, we developed 46 recommendations on discontinuation or safer prescribing.
The eDS tool has been developed and the full GP and patient samples for the RCT have been successfully recruited; baseline data collection is nearing completion.

Conclusions
Forty six recommendations on discontinuation or safer prescribing were developed. The RCT is ongoing to evaluate the eDS tool. The project will contribute to improve treatments suited to the needs of older people.

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Differentiation of Osteogenic Cells from Umbilical Cord Derived Mesenchymal Stem Cells: A Therapeutic Target for Bone Defects

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Introduction
Mesenchymal Stem cells (MSCs) are plastic-adherent, fibroblast – like cells with specific surface phenotype, having ability to differentiate into osteoblasts, chondroblasts and adipocytes *in-vitro*. Umbilical cord (UC) is a readily available without ethical constraints, showing high proliferation rate and osteogenic potential. Differentiating UC-MSCs into osteogenic cells opens up new perspectives for bone tissue engineering.

Objectives
To derive MSCs from the human UC Wharton's Jelly (WJ) and osteogenic differentiation

Methodology
Following obtaining ethical approval, UCs from healthy mothers undergoing elective Caesarian sections were collected, cleaned with phosphate buffered saline, removed blood vessels,digested WJ in 0.2-0.5% collagenase overnight and cultured in DMEM supplemented with 10% FBS, 1% L-glutamine and 1% penstrep at 37˚C in 5% CO_2. Cells are passaged at 70% confluency. At fourth passage, osteogenic differentiation medium was added following incubation. Culture maintained for 21 days and cells were stained with 2% Alizarin red and von Kossa stains. MSCs were determined and characterized using Trypan blue test, flow cytometry, RT-PCR and karyotypic analysis.

Results
Five UCs were processed. Cultured cells were plastic adherent showing fibroblastic spindle shape morphology. Cells were positive for CD90, CD73 and CD105 and negative for CD34 and CD45 markers. They expressed Oct-4 and G6PD. Karyotype was normal. Alizarin red stain gave bright orange red and von Kossa stain gave black-brown deposits demonstrating the presence of extracellular calcium deposits.

Conclusion
UC-MSCs serve as a suitable source for osteogenic regeneration. Gene expression demonstrated the embryonic origin of the MSCs which maintained genomic stability. So, an initiative research of this kind improves the therapeutic potential for bone defects which is prevalent among the elderly population of Sri Lanka.

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Assessment of old age vulnerability for adverse health outcomes among the elders admitted to the selected teaching hospitals in Colombo district

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Background
Sri Lankan population is ageing rapidly. Aim of this study was to assess and predict the vulnerability for adverse health outcomes among the hospitalized elders in selected teaching hospitals in Colombo district using the Vulnerable Elders Survey – 13 (VES – 13) instrument.

Methodology
Total of 248 elders admitted to National Hospital Sri Lanka (NHSL) and National Cancer Institute Maharagama (NCIM) were selected by convenient sampling and the elders who scored 3 or more on VES – 13 were considered as vulnerable.

Results
Majority of the elders were females (51.2%) and young elders (80.2%). According the VES – 13, 51.6% of the elders were vulnerable and 59.4% of females and 80% of old elders were vulnerable. Odds of being vulnerable becomes 1.15 (95% CI=1.07-1.24) times higher in elders with an unit increase in age and that becomes 1.05 (95% CI=1.01–1.11) and 1.02 (95% CI=1.002–1.032) times higher in elders with an unit decrease in Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) respectively. Odds ratios of vulnerability are 11.9 (95% CI =3.8–37.7) for weak health status, 5.94 (95% CI=1.33–26.5) for lower income and 18.5 (95% CI=1.24–275.34) for limited movements inside the house. Having occupation (OR=0.134, 95% CI=0.041–0.438) and cooking frequently (OR=0.166, 95% CI=0.057–0.47) were protective factors of being vulnerable. Married male elders with higher education; doing household work and shopping frequently were negatively associated with vulnerability.

Conclusions
Old age vulnerability is increased with advancing age, poor economy and lower levels of physical activities. Appropriate geriatric services should be initiated in Sri Lanka.

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Potentially inappropriate medication use in elderly patients (70yrs or more) in a tertiary care hospital

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Introduction
Potentially Inappropriate medication (PIM) use could be either potentially inappropriate prescribing (PIP) which is defined as the use of medicines whose potential harms to older adults may outweigh the benefits or potential prescribing omissions (PPO) which is non-introduction of medicine with proven benefit. It is important to assess the situation of PIM use in Sri Lanka especially because of the fast ageing population with the free health system with limited resources.

Aim
To determine the prevalence of PIM and some issues relevant to use of medicine in elderly (70 years or older) who are attending regular medical clinics

Methods
Descriptive cross sectional study was done among 199 elderly medical clinic attendees of Colombo South Teaching Hospital in September 2015. Interviewer administered questionnaire and a data extraction sheet were used. Simple random sampling from all three medical clinics was done.

Results
The median age of the participants was 74 years (IQR: 72-78 years) and 53% (n=107) were females. The median number of medications used was 6 (IQR: 5-8) whereas 5 or more drugs were taken by 34 (17%). Medicine intake had to be supervised in 38 (19%) of patients, 105 (53%) of patients had a problem with vision. Bypassing of a closer hospital was common (38%). Forty two PIPs were identified in 44 (22%) of patients and 42 PPOs in 30 (15%) patients. The most common PIP was for omeprazole (11.6%) and the most common PPO was for β blockers (22.2%) in patients' with ischemic heart disease without any contraindication.

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