



# MCGM 2022

MALAYSIAN CONGRESS OF GERIATRIC MEDICINE

18 – 20 AUG 2022 | Kuching, Sarawak

*Integrated Person-Centered Care:*

*The Frontiers of  
Geriatric Medicine*

PROGRAMME BOOK

Organised by



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# Welcome Message

**Dr Ling Jia Nee**

Organising chair, MCGM 2022

Dear Colleagues and Friends,

On behalf of the Organising Committee, I warmly welcome all of you to the 17th Malaysian Congress of Geriatric Medicine from 18-20 August 2022 at Pullman Hotel, Kuching, Sarawak. The Malaysian Society of Geriatric Medicine will be hosting this hybrid event for two and a half days.

After 2 years of struggling with the Covid-19 pandemic, the field of geriatric is now ever more pressing with the unprecedented increase in risk and fatality in this vulnerable group, more importantly among those with physical and cognitive limitations. Hence, let us come together to strategise a more proactive approach from all levels of health care.

As Malaysia is expected to be an ageing nation by 2030, it is timely to call for provision of integrated care for older people. In order to meet the challenges and complexities of providing health care to older people, a person-centered, inter-professional and integrated care approach is needed to replace the current fragmented care system. Therefore, the theme "Integrated Care for Older Persons: The Frontiers of Geriatric Medicine" is chosen for the local and international experts to share their valuable knowledge and experience on transdisciplinary concept of care for the older adults.

With this congress, packed with 6 plenaries and 14 symposiums, we hope to conceptualise the integrated care for older people. We will also have roundtable talk, cross talk between different disciplines and Special Interest Group (SiG) meet-up points to enhance fundamental networking which would be the impetus for future quality improvement initiatives.

We welcome all eminent personalities and experts from far and near to discuss innovative and evidence-based strategies to improve our care for older people from all levels of health care. We also welcome clinicians, researchers, and healthcare professionals around the world to share your remarkable research abstracts on any topic pertinent to older persons.

I sincerely hope you will enjoy the congress.  
Welcome to the beautiful Land of Hornbills.

With best regards,  
Dr Ling Jia Nee  
Organising Chair  
MCGM 2022



# Welcome Message

**Dr Ungku Ahmad Ameen**

MSGM President

Dear Colleagues

It is with great pleasure to welcome you to our 17th Malaysian Congress of Geriatrics Medicine which is held on 18 to 20th August in Kuching Sarawak.

I am glad that we are able to host this meeting as a face-to-face conference after 2 years of Covid pandemic, even though some of the participants will attend the conference virtually this year.

The theme for our conference this year is "Integrated Care for Older Persons: The Frontiers of Geriatric Medicine". Integrated care is the main aspect of geriatrics medicine. Among the important aspect of integrated care is that it can reduce unnecessary medical utilization and therefore reduce the health care cost of managing our older persons who are known to have multiple and complex co-morbidities and as we are rapidly becoming an aging nation, we must strategise the best way to handle a tsunami of geriatric patients that will fill our hospitals and healthcare communities in less than 10 years' time.

A seamless healthcare for the elderly, from the community to hospital and back to community is one of the smartest ways to tackle this challenge as it will provide not only comprehensive care for them, but it can also reduce risk of unnecessary hospitalization, maintaining the fit elderly in community by reducing the risk of frailty with appropriate early interventions and therefore reduce the cost of the healthcare. This is an integrated care that needs to be given serious consideration and attention.

In this conference, we will hear and learn from the local as well as international speakers as they share their expertise and experiences. The speakers are from various fields and backgrounds and we hope with the knowledge and latest information they parted, we will have new insights and update ourselves as we manage our older patients.

I would like to acknowledge the hard work of the organising committee, led by Dr. Ling Jia Nee, and supported by Dr Gordon Pang and Dr Keng Jun Ni. Thank you very much for making the conference a reality. I would also like to thank Globewerks and the secretariat team for all the work behind the scenes to ensure a smooth and efficient conference.

To the healthcare industry partners and sponsors who have consistently given us the support for this annual event, we appreciate your involvement and thank you very much.

Last but not least, thank you to all of you who have chosen to attend this conference either physically or virtually, and I hope everyone will have a great three days filled with memorable geriatric-laden experiences.

I wish all of you will have a wonderful time, do enjoy your stay in Kuching, Sarawak and explore its wonderful culture, nature and all the attractions it has to offer.

Thank you.

Dr. Ungku Ahmad Ameen  
President  
Malaysian Society of Geriatric Medicine





# PROTECTION AGAINST STROKE OR SYSTEMIC EMBOLISM, INCLUDING PATIENTS AT INCREASED BLEEDING RISK\*<sup>1,2</sup>



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For more information, please refer to full prescribing information.

**References:** 1. Lixiana® Malaysia Prescribing Information. Dated 27 September 2021. 2. Giugliano RP et al. N Engl J Med 2013;369(22):2093-104.

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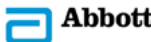




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# Programme



# Day 1 – 18 August 2022 (THUR)





TOPIC			
Venue. : Colosseum 1			
0730 -0800	Registration		
0800 -0830	Prayers Recitation Negaraku Dr Mohd Zaquan Arif Bin Abd Ghafar		
	Welcome Message by MCGM Organizing Chair Dr Ling Jia Nee		
0830 -0840	Welcome Message by MSGM President YM Dr Ungku Ameen		
0840 -0900	Welcome Message The Honourable Dato Sri Prof Dr Sim Kui Hian Deputy Premier of Sarawak Minister for Public Health, Housing and Local Government Sarawak		
0900 -0915	Opening Ceremony and Launch of 10 year anniversary MSGM		
0915 -0940	Plenary 1 Embracing Healthy Ageing in Malaysia: The Future of Ageing Dr Yau Weng Keong Chairperson: Dr Sarah Kiyu		
0940 -1010	Strengthening Health In Elderly through nutrition. Speaker : Dr Agnes Siew Ling Tey Chairperson: Dr Sarah Kiyu		
1010 -1030	Plenary 2 Integrated Care for Older Persons Prof Dr Renuka Visvanathan Chairperson: Prof Shahrul Bahyah		
1030 -1100	Management of Mild Cognitive Impairment Prof Tan Maw Pin Chair : Dato' Dr Tunku Muzafar		
1100 -1130	Tea Break / Exhibition / Poster		
Breakout 1			
	Venue. : Colosseum 1	Venue. : Colosseum 2	Venue. : Petra 1 & 2
	Symposium 1 New Insights in Dementia Chairperson: Dr Terence Ong	Symposium 2 Metabolic Chairperson: Dr Ng Chai Chen	Symposium 3 SiG (SALT) Chairperson: Dr Tan In Jiann
1130 -1300	Searching New Pharmacological Strategies for Treatment of Alzheimer's Disease Prof Chin Ai-Vyryn	Hypoglycemia in Older Patients: The Neglected Risk Dr Jeshen Lau	Eating Problems in Dementia Ms Melinda Ang
	Preventing Dementia: What is the evidence? Dr Alan Ch'ng	Diabetes and Frailty: Two Converging Conditions? Dr Florence Tan	Optimizing Communication in Dementia Care Ms Nur Aliaa Arif Md Ariff
	DKSH Symposium :  Mild Behavioural Impairment as marker of Cognitive Decline? Dr Teh Ewe Eow	CKD in Older Persons: Dilemma and Decision making for renal replacement Dr Clare Tan	Sarcopenic Dysphagia as a New Concept Ms Puspa A/P Maniam
	Q&A	Q&A	Q&A
Venue. : Colosseum 1			
1300 -1330	Pneumococcal vaccines for older adults: Getting the timing right Prof Tan Maw Pin Chairperson : Prof Philip Poi		
1330 -1415	Lunch Break / Exhibition Booth / Poster Viewing		
1415 -1515	Influenza Protection: Evidence and Recommendations Speaker: Dr Rizah Mazzuin Razali Chairperson: Dr Alan Ch'ng		

# Day 1 – 18 August 2022 (THUR)


1515 - 1600	<div>Plenary 3</div> <div>Round Table Discussion: Lessons Learnt From Covid-19 Infection in Older Population: Vaccination, Primary Aged Care, Long Term Care</div> <div>Prof Andrew Kiyu, Dr Sally Suriani, Dr Nor Hakima Makhtar</div> <div>Moderator: Dr Premala Subramaniam</div>		
1600 -1630	<div>Perioperative Nutritional Management of Geriatric Surgical Patients</div> <div>Dr Jesus Fernando B. Inciong</div> <div>Chairperson: Dr Tan Hui Loo</div> <div></div>		
Breakout 2			
	Venue. : Colosseum 1	Venue. : Colosseum 2	Venue. : Petra 1 & 2
	<div>Symposium 4</div> <div>New Frontiers Peri-operative Medicine</div> <div>Chairperson: Dr Low Chung Min</div>	<div>Symposium 5</div> <div>Critical Care in Older Persons</div> <div>Chaiperson: Prof Chin Ai-Vyrn</div>	<div>Symposium 6</div> <div>SiG (Nutrition/Oral)</div> <div>Chairperson: Ms Siti Aishah Ikmal</div>
1630 - 1730	<div>Perioperative Medicine for Older Patients: How Do We Deliver Quality Care?</div> <div>Dr Terence Ong</div>	<div>Critical Care of Older Adults in the Emergency Department: Old Problems and New Solutions</div> <div>Dr Mohd Shukri Mat Saad</div>	<div>Challenges of Meeting Nutritional Needs In Hospitalised Older Patients</div> <div>Ms Sonia Ranieng Ak Vincent</div>
	<div>Transdisciplinary Surgical Care for Older Patients</div> <div>A/P Dr Tan Kok Yang</div>	<div>CSDH - Review on State of the Art in the Older Adults</div> <div>Mr Albert Wong</div>	<div>Relationship between Oral Health and Physical Frailty in Older Persons</div> <div>Dr Jessica A/P Francis</div>
	Q&A	Q&A	Q&A
1730 - 1830	Refreshments / Exhibition Booth / Poster Viewing		Geriatric Trainee Meeting




# Day 2 – 19 August 2022 (FRI)

TOPIC				
Venue : Colosseum 1				
0730-0800	Registration			
0800-0830	Plenary 4 Frailty & Intrinsic Capacity Dr Lee Fatt Soon Chairperson: Dr Elizabeth Chong			
0830 - 0900	Plenary 5 Untangling the Relationship Between Cognition, Balance and Fall Dr Julie Whitney Chairperson: Prof Philip Poi			
0900-0940	EF as a Continuous Variable: A New Horizon for HFpEF Assoc. Prof Tan Kit Mun Chairperson: Prof Chin Ai-Vryn			
0940-0955	Tea Break / Exhibition / Poster			
Breakout 3				
	Venue : Colosseum 1	Venue : Colosseum 2	Venue : Petra 1	Venue : Petra 2
	Symposium 7 Cardiovascular Chairperson: Dr Angel Ho 	Symposium 8 Medications Chairperson: Dr Tan Hui Loo	Oral Presentation Sarcopenia / Falls / Frailty	Oral Presentation Cognition
0955-1125	Geriatric Cardiology: An Emerging Discipline Dr Nor 'Izzati Saedon	Swallow, Chew or Crush – Does it Matter? Mr Ammar bin Kamar	The Development Of An Exercise Programme As Prevention For Acute Sarcopenia Among Hospitalized Older Person Hasleezan Arifin	The Relationship Between Fruits and Vegetable Intake and Cognitive Functions among Malaysian Adults Khor Khai Ling
			Sarcopenia Among Post-Acute COVID-19 Patients Wan Safiyyah Nurnajah	The potential benefits of walnuts and peanuts in improving cognitive functions Vashnarekha Kumarasuriar
	Coronary Artery Disease in Elderly: The Challenges of Diagnosis and Management Dr Liew Hong Bang	Medication Reconciliation: Too Much or Not Enough? Ms Siti Aishah Ikmal Hisham	Calf Circumference Is Associated With Frailty Status Among Older People Attending The Geriatric Clinic At A Selected Hospital In Malaysia Julaida Embong	The Relationship Between Falls And Cognitive Performance Nur Dalila Noor Azman
			A Retrospective Study on the risk factors of falls among elderly in Primary Care Fall's Clinic Nagammai Thiagarajan	Affiliate Stigma and Psychological Well-being of Caregivers of Patient Living with Dementia Mohammed Rasheedan Ellin
	Reperfusion Strategies for Acute Ischemic Stroke in the Older Person: Benefits and Risks Dr Law Wan Chung	Transitions of Geriatric Care Ms Lee Qian Jin	Factors Associated with Falls Among the Elderly Attending Outpatient Clinic in Hospital Kuala Lumpur Hannah Abdul Halim	Preliminary Analysis of Multi-Centre Validation of Pain Assessment in Advanced Dementia (PAINAD) in Malaysia Tan In Jiann
			Performance of SARC-F Questionnaire for Screening of Probable Sarcopenia in Sabah: A Cross-Sectional Study Woo Fui Bee	Delirium in Severe COVID-19 Infection : A Cross-Sectional Study Yew Yan Xi
	Q&A	Q&A	Hba1c Levels And The Risk Of Falls In The Malaysian Elders Longitudinal Research (Melor) Study Vithyaa Armugam	Psychological Status Among Older Adults during the COVID-19 Pandemic Kiirtaara Arvindhan
			Sarcopenia Risks Among Community- Dwelling Older Adults Attending To Government Health Clinics In Malaysia Ng Chai Chen	
Venue : Colosseum 1				
1125-1155	Panel discussion When Aging Meets Atrial Fibrillation: A Decade of Oral Anticoagulation, What have We learned Speakers: Dr Ong Tiong Kiam, Prof Tan Maw Pin Chairperson: Dr Lim Hong Tak			
1155 - 1400	Lunch break and Friday Prayers			
1400-1430	See-Sawing: Too High, Too Fast Speaker : Dr Gary Lee Chin Keong Chairperson : Dr Reena Nadarajah			

# Day 2 – 19 August 2022 (FRI)

Breakout 4				
	Venue : Colosseum 1	Venue : Colosseum 2	Venue : Petra 1	Venue : Petra 2
	Symposium 9 Neuro/Rehabilitation Chairperson: Dr Alan Ch'ng	Symposium 10 Community & Primary Care Chairperson: Dr Nor Hakima Makhtar	Oral Presentation Orthogeriatric	Oral Presentation Healthy Ageing
1430-1530	Rehabilitation in Older Patients with Long Covid Dr Rizah Mazuin Razali	Integrating Services and Cross Organizational Working – Process of Setting Up Dr Sally Suriani	Fragility Fracture Management of a Tertiary Centre in Kelantan Nareshraja Janardanan	Phenomenological Study: Searching For The Spiritual Needs Of The Elderly During The Covid-19 Pandemic Kristianto Nugroho
	Management of Parkinson Disease Symptoms: Motor, Non-motor and functional impairment Dr Chai Chiun Hian	Health care delivery model and transition of care in the community - GeKo Experience Dr Sally Suriani, Mr Adrian Albert	Association Between Pain Level And Disability In Elderly With Low Back Pain Khirudin Amir	The Relationship between Self-Stigma, Activities of Daily Living, and Communication Participation among Individuals with Parkinson's disease Nur Zahrah Zakaria
			Hypovitaminosis D Among Fragility Hip Fracture Patients Lee Ai Vuen	Process Evaluation of Supporting Family Doctors to Address Elder Abuse Intervention: A Mixed-Method Study Fadzilah Hanum Mohd Mydin
			The impact of the 4th Wave of COVID-19 pandemic on surgery for Geriatric Neck of femur fracture Bong Chun Haw	The Development and Validation of My Leisure Program for Geriatric (MYLP-G) to Improve Patients Quality-of-Life Nur Ain
	Q&A	Q&A	Does the Rogmark score and type of surgery affect the Time to Surgery and Length of Stay for Geriatric Femoral Neck Fracture? Bong Chun Haw	Sex-Specific Seven-Year Mortality Is Associated with Adiposity: Findings from the MELoR Study Nurul Nabilah Akmal Hashim
			Use and safety of denosumab in geriatric patients with osteoporosis and renal impairment Benjamin Tiong	Association between diabetes duration with risk of mortality in the Malaysian Elders Longitudinal Research (MELoR) Study Ghanarth Vijayan
				Qualitative researcher's preliminary experiences of the study on the transition to retirement among urban older Malaysians. Lim Chu Yueh
Venue : Colosseum 1				
1530-1600	Treatment landscape of patients with high risk of fractures Speaker : Dr Khor Hui Min Chairperson : Dr Elizabeth Chong			
Breakout 5				
	Venue. : Colosseum 1	Venue. : Colosseum 2	Venue. : Petra 1	Venue. : Petra 2
	Symposium 11 Orthogeriatrics Chairperson: Dr Lim Wan Chieh	Symposium 12 SiG (PT/OT) Chairperson: Ms Julaida Embong	Oral Presentation Aged Care/ Gerontechnology	Oral Presentation Hospital Care
1600-1700	Introduction to OG service Dr Elizabeth Chong	Exercise Therapy in Sarcopenia and Frailty. Is There a Difference? Mr Adha Nawawi	Telegram for delivery of educational program - its acceptability among care providers of aged homes Lee Wan Ling	Prevalence And Determinants Of Drug Related Problems Among Elderly Patients Receiving Home Medication Review Ammar Kamar
	Case-based discussion: 2 cases Dr Teo Shu Ching Dr Ankimtay Anak Rutel Dr Elizabeth Chong	Effectiveness of CST in the Cognitively Impaired Pn Khatijah binti Bujang	Perceptions of Geriatric Patient Care among Clinical Healthcare Students at Universiti Teknologi MARA Mas Suryalis Ahmad	Anthropometric, Body Compositions and Functional Status among Older Women with Different Types of Urinary Incontinence Norazlina Ya'acob
			Feasibility of Synchronous Tele-Speech Therapy for Adult and Elderly with Communication Disorders: A Retrospective Study Nadwah Onwi	Drug Related Problems and Cost-Saving Description of Pharmacist Interventions among Hospitalized Elderly Patients Tea Yuan Yuan
			Development of a Reusable Learning Object on Nutrition in Older Persons for Health Sciences Learners Aimy Abdullah	First experiences of intravenous ferric derisomaltose in iron deficient older Malaysian patients Tay Hui Sian
	Q&A	Q&A	Mobile application development for health management of the elderly Nurhaniza Hamiri	Prevalence and Pattern of Use of Medications with Anticholinergic Effects in Malaysian Elders Longitudinal Research (MELoR) Study Xu Jiang Jiang
			Development of Smart Elderly Care Apps (SECA) Nurhaniza Hamiri	Preliminary study: The effect of habatus sauda (Nigella sativa) oil on burning mouth syndrome. Faezah Rokhani
1700-1800	AGM of MSGM			

# Day 3 – 20 August 2022 (SAT)

TOPIC		
0730-0745	Registration	
	Venue : Colosseum 1	Venue : Colosseum 2
0745-0830	<b>Special Interest Group (SiG) Meet up Point 1 : Occupational therapist, Pharmacist and Doctors</b> <i>Pn Khatijah binti Bujang , Mr Ammar bin Kamar, Dr Angel Ho</i>	<b>Special Interest Group (SiG) Meet up Point 2: Physiotherapist, Nursing &amp; Community Geriatrics</b> <i>Ms Julaida Embong, Ms Ida Rosyany, Dr Sally Suriani</i>
Venue.: Colosseum 1		
0830-0900	<b>Plenary 6</b> <b>Protecting Elderly from Abuse and Neglect- Expectation, Current Reality and Closing the Gap in Multicultural Malaysia</b> <i>Prof Dr Sajaratulnisah Othman</i> <i>Chairperson: Dr Nor 'Izzati Saedon</i>	
0900-1000	<b>Cross talk : Chronic Musculo-skeletal Pain</b> <i>Dr Athena Tang Mee Yee, Dr Chai Chau Chung , Dr Katrina Tan Pik Munn</i> <i>Moderator: Dr Rizah Mazzuin</i>	
1000-1030	<b>Management of Overactive Bladder in Older People</b> <i>Dr Warren Lo Hwa Loon</i> <i>Chairperson : Prof Phillip Poi</i>	
1030-1050	Tea Break	
Breakout 6		
	Venue : Colosseum 1	Venue : Colosseum 2
	<b>Symposium 13</b> <b>Oncology &amp; Palliative</b> <i>Chairperson: Dr Tiong Ing Khieng</i>	<b>Symposium 14</b> <b>Falls / Sports Medicine</b> <i>Chairperson: Dr Lim Hong Tak</i>
1050-1220	<b>Geriatric Assessment in Older Patients with Cancer: A New Standard of Care</b> <i>Dr Voon Pei Jye</i>	<b>Exercise Prescription in Older Persons</b> <i>Prof Dr Devinder Kaur Ajit Singh</i>
	<b>Community Hospice Support for the Geri-Oncology Patients</b> <i>Dr Tiong Tung Hui</i>	<b>Myth about “being old” - changing the aging” perspective by Sports Medicine Specialist</b> <i>Dr Yau May Yann</i>
	<b>Geriatric palliative care: Integrated Care Model for Peri-End-Of Life support</b> <i>Dr Sharon Choo</i>	<b>The Nuts and Bolts of Virtual Falls Prevention Prescription in Older Persons: A Malaysian Experience</b> <i>Prof Devinder Kaur</i>
	Q&A	Q&A
Venue : Colosseum 1		
Closing Chairperson: Dr Reena Nadarajah		
1220-1315 (55 mins)	Announcement of <b>Oral and Poster Presentation</b> and <b>Lucky Draw winners*</b> <b>Announcement of MCGM 2023</b> Prize Presentation of <b>MSGM Rising Star Award</b>	
1315 - 1330 (15 mins)	<b>Closing Speech</b> <i>Dr Ling Jia Nee</i>	
1330	End of MCGM 2022	

\*Prizes must be collected in person



# Faculty Bio





## FACULTY



### Dr Ankimtay Anak Rutel

Hospital Umum Sarawak  
Malaysia

Dr Ankimtay Rutel is an Arthroplasty Surgeon currently working at Sarawak General Hospital (SGH). He graduated from IMU in 2002, completed his housemanship and joined the Orthopaedic Unit of Sarawak General Hospital in 2003. In August 2007, he attended and passed the International Osteoporosis Foundation (IOF) Osteoporosis Diagnosis Course with Densitometry Certification. He completed his postgraduate Orthopaedic Traumatology training at Hospital University Kebangsaan Malaysia (HUKM) in 2012 and returned to Sarawak General Hospital. He successfully completed the MOH subspecialty training programme (fellowship) in Arthroplasty Surgery between 2016 to 2020, which included a six-month overseas attachment in 2018 at Chungbuk National University Hospital (CNUH) in South Korea. He is part of the Arthroplasty Team of the Orthopaedic Department in SGH that manages neck of femur fractures in the elderly. Besides that, the team performs joint replacement surgeries (primary and revision) of the hip, knee, shoulder and elbow, not only in SGH but other major hospitals in Sarawak (Miri, Bintulu, Sibu Sarikei) and in QE2 Hospital, Sabah.

**Topic: Breakout 5 | Symposium 11 (C): Case-based Discussion (2 case presentation)**

## FACULTY



**Ms Melinda Ang**

Pusat Jantung Sarawak  
Malaysia

Melinda Ang born in Sarawak, Malaysia. She is a Gerontology Nurse in Geriatric Department, Pusat Jantung Sarawak. She graduated from Nursing College Kuching Sarawak in 2005, first posted at female medical ward Sibu Hospital for 5 years. In 2009, she moved to medical 3 SGH. Year 2012, she pursue her career in doing post basic Gerontology. She started her role as 2013 started my role as a trained geriatric nurse in Geriatric Department until present .

**Topic: Breakout 1 | Symposium 3 (O): Eating Problems in Dementia**

## FACULTY



**Pn Khatijah binti Bujang**

Pusat Jantung Sarawak  
Malaysia

Mdm Khatijah received her Diploma in Occupational Therapy from Kolej Sains Kesihatan Bersekutu, Kementerian Kesihatan Malaysia 2007. She has 12 years of experience as an Occupational Therapist in Ministry of Health (MOH) and credentialed in Cardiac Rehabilitation since 2016. She received her Certificate, training in Cardiac Rehabilitation course at Tung Wah Hospital, Hong Kong in 2013. She received her first certificate as a Facilitator of Cognitive Stimulation Therapy under KKM in September 2019 and also received certificate from Saint Louise University, United Kingdom after completing the professional course in June 2021. Since then, she become one of the KKM CST coordinator in national level. Mdm. Khatijah has actively involved in Cognitive Stimulation Program at Pusat Jantung Sarawak since November 2019 and actively involve as a speaker for online teaching on CST during Pandemic to another Allied Health professional. She expends her CST programme for charity services and volunteer at Eden Nursing Home since November 2021. Since then, there were many participants have benefitted from this programme.

**Topic: Breakout 5 | Symposium 12 (P): Effectiveness of CST in the Cognitively Impaired**

## FACULTY



**Dr Alan Ch'ng**

Hospital Seberang Jaya  
Malaysia

Dr Ch'ng completed fellowship training in Geriatric Medicine at HKL, UMMC and Tan Tock Seng Hospital, Singapore in 2015. He currently heads the geriatric service for Penang. He is the President of the Postgraduate Medical Education Society and Deputy head of CRC, Seberang Jaya Hospital; Vice-President of Penang Dementia Association; Honorary Treasurer of the Malaysian Society of Geriatric Medicine, and council member of the Fragility Fracture Network of Malaysia. He has contributed to authoring the Malaysian clinical practice guidelines for: management of osteoporosis; management of ischemic stroke; falls prevention in hospitals, and pain management in older people.

**Topic: Breakout 1 | Symposium 1 (C):** Non-Amnestic Dementia: More Common than We Think



## FACULTY



**Dr Chai Chau Chung**

UNIMAS  
Malaysia

Dr Chai Chau Chung graduated with Bachelor Degree in Medicine, Bachelor Degree in Surgery (MBBS) and Master of Rehabilitation Medicine (MRehabMed) from University of Malaya (UM). He then returned to his hometown, "land of hornbills" (Sarawak) and currently serves as rehabilitation physician and lecturer in Universiti Malaysia Sarawak (UNIMAS) and Sarawak General Hospital. He has obtained Certified Medical Impairment Assessor (CMIA) certification from National Institute for Occupational Safety and Health. He has publications in local and international indexed journals. He is project leader in innovative healthcare and rehabilitation research projects, and has won gold medal in innovation technology expo. He is also invited speaker for local and international events in his field of rehabilitation medicine. He is trained and skilled in applying ultrasound-guided minimal invasive interventions, dry needling, therapeutic exercises, kinesiology taping and physical modalities for musculoskeletal rehabilitation.

**Topic: Cross talk: Chronic Musculo-skeletal Pain**

## FACULTY



**Dr Chai Chiun Hian**

KPJ Kuching  
Malaysia

Chai Chiun Hian earned his MD from University Malaya Sarawak (UNIMAS). He completed Internal Medicine training at Hospital Kuala Lumpur and was awarded Membership of the royal Colleges of Physician (UK) in 2008. Dr Chai furthered his sub-specialty training in Neurology in Kuala Lumpur Hospital and University Malaya. He subsequently spent one-year abroad as Neurology Fellow in Parkinson's disease and movement disorders at Melbourne Brain Centre and Royal Melbourne Hospital, Australia. Dr Chai is currently Resident Consultant Neurologist at KPJ Kuching Specialist Hospital.

**Topic: Breakout 4 | Symposium 9 (C):** Management of Parkinson Disease Symptoms: Motor, Non-Motor and Functional Impairment

## FACULTY



### Dr Chin Ai-Vryn

University Malaya Medical Centre  
Malaysia

Professor Prof Chin Ai-Vryn is a Senior Consultant Geriatrician and Professor of Geriatric Medicine. He completed his undergraduate and postgraduate training in UK and Ireland before returning to Malaysia. He is a Fellow of the Royal College of Physicians in Edinburgh and has a Doctorate in Medicine from Trinity College, Dublin. He is a founder member of the Malaysian Society of Geriatric Medicine as well as the Ageing and Age Associated Research group at University Malaya. Professor Chin is the head of Geriatric Medicine at University Malaya and is very much involved in teaching, research and clinical work. Despite the difficulties and challenges, he remains committed to the development of Geriatric Medicine in Malaysia.

**Topic: Breakout 1 | Symposium 1:** Searching New Pharmacological Strategies for Treatment of Alzheimer's Disease

## FACULTY



### Dr Elizabeth Chong

Hospital Kuala Lumpur  
Malaysia

Dr Elizabeth Chong graduated in BSc Psychology and obtained her MBBS from the Imperial College School of Medicine, London. She is currently a Geriatrician practising in Hospital Kuala Lumpur. Her special Interest is in Falls and Orthogeriatrics. She is at present the Team Lead of Malaysia Patient Safety Goal 2.0 (Falls Chapter) and team leads for both the Falls and Orthogeriatrics teams, in the Ministry of Health. She is also the Chairperson of Falls Prevention in Hospital Kuala Lumpur. Her contribution includes being the Coordinator of Falls Guideline Malaysia, the editor of Reference Guide for Nurses in Prevention Of Patient Fall and contributor to the Clinical Practice Guidelines in Management of Osteoporosis and Clinical Practice Guidelines in Geriatric Hip Fracture.

Dr Elizabeth is elected as the Change Agent in Clinical Expert Cascade: Asia Pacific Bone Academy and currently the steering committee for the SEA, HK & India Bone Academy. She established the First International Osteoporosis Foundation Certified Fracture Liaison Service in Ministry of Health Hospital, Malaysia. She is a Fracture Liaison trainer for the Fragility Fracture Network Malaysia and has guided the establishment of FLS in various states in Malaysia.

**Topic: Breakout 5 | Symposium 11 (C): Introduction to OG Service**



## FACULTY



**Dr Sharon Choo**

Hospital Umum Sarawak  
Malaysia

Dr Choo is the first palliative care physician in Sarawak. Her training in palliative care includes rotation in major palliative care units in Malaysia and a year of fellowship in Sydney in one of the top 5 palliative care establishments recognised by PCOC Australia. She is excited in developing palliative care services in Sarawak, be it in the hospital or in the community. Her vision is to build Sarawak to be a centre of excellence that is internationally recognized for impeccable palliative care service and training. She aims to provide high quality, safe, accessible, and holistic palliative care by equipping and building a passionate team. She also strives to provide seamless care through close collaboration with multidisciplinary teams and NGO hospices.

**Topic: Breakout 6 | Symposium 13 (C): Geriatric Palliative Care: Integrated Care Model for Peri-End-Of Life Support**

## FACULTY



**Ms Julaida Embong**

Hospital Kuala Lumpur  
Malaysia

Julaida binti Embong received the Diploma of Physiotherapy from Kolej Fisioterapi, Hospital Kuala Lumpur, Malaysia, in 2001 and the BSc. in Physiotherapy from Universiti Teknologi Mara (UiTM) in 2019. In 2002, she joined the Department of Physiotherapy, Hospital Kuala Lumpur, and has been part of the Hospital Kuala Lumpur Geriatric Unit since 2005. Currently she has 17 years of experience in physiotherapy and geriatric rehabilitation. Ms Julaida underwent multiple training attachments in Tan Tock Seng Hospital, Singapore (2007, 2010, 2014, 2016) on falls prevention, neurology and gait analysis, and general geriatrics. She has vast experience giving talks and lectures all over the country on topics related to geriatric rehabilitation. She is integral in the development of policies pertaining to physiotherapy for geriatric rehabilitation and the geriatrics service in Malaysia. She is also a member of the Malaysian Physiotherapy Association.

**Topic: Special Interest Group (SiG) Meet up Point 2: Physiotherapist & Nursing**

## FACULTY



### Dr Jessica Francis

Pusat Perubatan Universiti Malaya  
Malaysia

She is a dental lecturer, clinical specialist, and assistant coordinator for the postgraduate and undergraduate programmes in Special Care Dentistry, Faculty of Dentistry, University of Malaya. She completed her Bachelor of Dental Surgery (Malaya) in 2007, and Doctor of Clinical Dentistry (Special Needs Dentistry) (Melbourne) in 2016. She had served ministry of health (2007-2021) and was the head of specialty for the state of Sarawak (2020-2021) prior to embarking the role of an academician. Her research areas of interest are Special Care Dentistry, Behavioural Supports and Geriatric Dentistry. She is also the elected treasurer of Malaysian Association of Disability and Oral Health and member of International Association of Disability and Oral Health.

**Topic: Breakout 2 | Symposium 6 (O):** Relationship between Oral Health and Physical Frailty in Older Persons

## FACULTY



**Dr Angel Ho**

Hospital Kuala Lumpur  
Malaysia

Dr Ho Yun Ying (Angel) is a General Physician and Geriatric Fellow. She is currently practising at Hospital Kuala Lumpur. She has chaired, organised and given talks in multiple state and national level conferences. Her passion is in empowering older adults by maximizing their potential with special interest in Orthogeriatrics.

**Topic: Special Interest Group (SiG) Meet up Point 1: OT & Pharmacy & Doctors**

## FACULTY



### Ms Siti Aishah binti Ikmal Hisham

Hospital Kuala Lumpur  
Malaysia

Siti Aishah is a registered pharmacist who graduated with a Bachelor of Pharmacy (First Class Honours) from the University of Queensland, Australia in 2013. She has worked in the Ministry of Health since 2014 and has been a clinical pharmacist since 2020. She completed her Geriatric Pharmacy training in 2020 and has participated and presented in various workshops, radio interviews and talks, both geared towards the public and for health professionals. In 2019, she received Anugerah Perkhidmatan Cemerlang from HKL. She is part of the editorial board for the first edition of "Geriatric Pharmacy Pocket Book 1st Edition, 2021". As an active member of the HKL Geriatric Pharmacy Special Interest Group, Falls Intervention Team, and Nursing Home Covid Outbreak Team, she is enthusiastic about promoting optimal medication use in the vulnerable elderly population and strategies to minimise medication-related adverse events.

**Topic: Breakout 3 | Symposium 8 (P): Medication Reconciliation: Too Much or Not Enough?**

## FACULTY



### **Dr Jesus Fernando B. Inciong**

St. Luke's Medical Center – College of Medicine  
Philippines

Dr Inciong is actively involved in surgical training being part of the training committee of the St Luke's Medical Center's Institute of Surgery and as Co-Chair of the Committee on Surgical Training of the Philippine College of Surgeons (PCS). Highly motivated in the academe, he is an Associate Professor in Surgery at St. Luke's Medical Center – College of Medicine and is involved in the evaluation of graduates of surgical training programs at the Philippine Board of Surgery (PBS). However, despite being a surgeon at heart, he has keen interest in surgical nutrition and metabolism. He was instrumental in the establishment of the Medical Nutrition Fellowship Program (formerly Clinical Nutrition Fellowship) at St. Luke's Medical Center – Quezon City (in existence for more than 2 decades). Thus, he also is the Head of the Weight Intervention and Nutrition Services. With extensive experience in clinical nutrition and surgery, he is now again the President of the Philippine Society for Parenteral and Enteral Nutrition (PhilSPEN), a position which he has held more than a decade ago. Both a trainer and educator, he has contributed to publications/ book chapters in the field of surgery and nutrition therapy on patients undergoing major gastrointestinal surgery, hospital malnutrition, the critically ill, refeeding syndrome and stroke patients. Currently he is part of the editorial board of the Annals of Clinical Nutrition and Metabolism.

**Topic:** Perioperative Nutritional Management of Geriatric Surgical Patients



## FACULTY



**Mr Ammar bin Kamar**

Hospital Kuala Lumpur  
Malaysia

Ammar Kamar, a registered pharmacist who believes that patient care should be a health care professionals top priority. He has been trained as a geriatric pharmacist in Hospital Kuala Lumpur since 2012 and currently involved in multidisciplinary-geriatric home visit team, specializing in Home Medication Review. Ammar has been involved in guidelines and protocols development including the Home Care Pharmacy Services Protocol by the Ministry of Health, Malaysia since 2019. Giving medications related talks on mainstream media as well as in-house training on medication administration to allied healthcare professionals and patients' caregiver has been Ammar's niche. He holds a Pharmaceutical Science degree from Universiti Sains Malaysia and recently completed his Masters in Clinical Pharmacy in Universiti Kebangsaan Malaysia in 2021.

**Topic: Breakout 3 | Symposium 8 (P): Swallow, Chew or Crush – Does it Matter?**

## FACULTY



### Dr Gary Lee Chin Keong

Thomson Hospital  
Malaysia

Dr Gary Lee Chin Keong is a Consultant Cardiologist and Electrophysiologist, primarily dealing with coronary artery and arrhythmia (abnormal heart rhythm) diseases related to the heart. His areas of specialty include interventional cardiology (coronary angiogram and angioplasty), electrophysiology study and radiofrequency ablation, cryoablation, cardiac implantable electronic devices implantation, cardiac diagnostic procedures such as echocardiography, tilt-table test, diagnostic cardiac rhythm monitoring, cardiac stress test (exercise stress test and stress echocardiography) and coronary CT angiography. He has special interest in complex arrhythmias ablation using advanced 3D cardiac mapping system as well as cardiac resynchronization therapy. Over the course of his career, he has been actively involved in the training of doctors in the field of internal medicine and cardiology, in national and regional level. In pursuit of excellence, he has also participated in many international multi-centres trials as investigator, as well as being part of the writing committee and reviewer of national guideline, registry and advisory board.

**Topic:** See-Sawing: Too High, Too Fast

## FACULTY



**Dr Khor Hui Min**

University of Malaya Medical Centre  
Malaysia

Dr Khor Hui Min is a consultant geriatrician and senior lecturer in University of Malaya, Malaysia. She received her medical degree from University of Newcastle Upon Tyne in 2005 and became a member of the Royal College of Physicians (MRCP) since 2009. Dr Khor has special interests in orthogeriatric care, dementia and frailty in the older person. She is a certified lead trainer of Dementia Care Skills for the Alzheimer's Disease Foundation Malaysia. She is currently the secretary of the Fragility Fracture Network of Malaysia (FFNM). She has presented many of her research findings both locally and abroad as part of the Ageing and Age-Associated Disorders Research Group.

**Topic:** Treatment landscape of patients with high risk of fractures

## FACULTY



**Prof Andrew Kiyu**

UNIMAS  
Malaysia

Professor Dr Andrew Kiyu is currently a Professor of Public Health in the Faculty of Medicine and Health Sciences, University Malaysia Sarawak. He obtained his MBBS and MPH degrees from University Malaya and Doctor of Public Health in Epidemiology from Tulane University, New Orleans, USA. He is a Life Member of the Malaysian Medical Association, Fellow of the American College of Epidemiology, and a member of the Academy of Medicine, Malaysia. Prior to joining UNIMAS in 2017, he had over 40 years of experience in public health, initially as a district medical-officer-of-health, then as an epidemiologist, Deputy Director for Public Health in Sarawak, and finally as Sarawak State Health Director. As a field epidemiologist, he was involved in the management of major EID outbreaks, notably the Hand Foot and Mouth Diseases outbreak in 1997, SARS in 2003, Nipah in 1998, rabies in 2017 and now COVID-19. He had also been appointed numerous times as WHO short-term consultant on Healthy Cities, the Social Determinants of Health in Urban Settings, as well as on avian influenza. He is an honorary consultant epidemiologist as well as honorary advisor for healthy cities for Sarawak government. He is the Chairperson of the Sarawak Covid-19 Vaccine Advisory Group (SCoVAG).

**Topic:** Round Table Discussion: Lessons Learnt From Covid-19 Infection in Older Population: Vaccination, Primary Aged Care, Long Term Care

## FACULTY



**Dr Jeshen Lau**

Borneo Medical Center  
Malaysia

Dr Lau was born in Sibü. He graduated from University of Southampton (UK) in 1998 and in 2009, completed his specialist training in Endocrinology at St Bartholomews's Hospital, a world renowned Centre of Excellence in London. After specialist training, he worked as a Consultant Endocrinologist in the UK before returning to Sarawak in 2013. He joined Borneo Medical Centre as Resident Endocrinologist in September 2015, after 2 years working as a Senior Lecturer in UNIMAS and Visiting Endocrinologist to Sarawak General Hospital. He is on the Malaysian National Specialist Register. In 2013, he received his Fellowship accolade from the Royal College of Physicians in London. Dr. Lau believes in building a rapport, and spends high quality time with his patients. Outside work, he is a keen amateur pianist and occasionally gives piano recitals to friends and public.

**Topic: Breakout 1 | Symposium 1 (P): Hypoglycemia in Older Patients: The Neglected Risk**

## FACULTY



### Dr Law Wan Chung

Hospital Umum Sarawak  
Malaysia

Dr Law Wan Chung is neurologist at Sarawak General Hospital. He graduated from University Malaya, attained RCP (UK) membership in 2008 and completed neurology fellowship in 2014.

Currently he is the head of neurology unit in Sarawak GH. He is also honorary secretary for Malaysia Neurosciences Society, Vice President for Malaysia Stroke Council and chair for Malaysia Angels Initiative.

**Topic: Breakout 3 | Symposium 7 (C):** Reperfusion Strategies for Acute Ischemic Stroke in the Older Person: Benefits and Risks



## FACULTY



### **Dr Lee Fatt Soon**

Former Head of Geriatric Service  
Malaysia

Previously held posts of Consultant Physician and Geriatrician and Head of Geriatric Services KKM for fifteen years, supported by a wonderful multidisciplinary team nationwide. Currently retired after 32 years of service with KKM. Presently involved with teaching and lecturing when opportunity arises.

**Topic:** Frailty & Intrinsic Capacity

## FACULTY



**Ms Lee Qian Jin**

Sarawak Heart Center  
Malaysia

Miss Lee Qian Jin was graduated from University Science Malaysia on year 2011. She started working as clinical pharmacist in Geriatric ward in Pusat Jantung Sarawak since year 2013. Ms Lee has obtained her credentialing in Geriatric pharmacy since year 2021 and received excellent service awards in year 2021. Currently, Ms Lee is working as clinical pharmacist in Geriatric ward, Pusat Jantung Sarawak. Besides that, she is also actively involving in geriatric home care pharmacy service, anticoagulant medication therapy adherence clinic and Antimicrobial Stewardship activity in Pusat Jantung Sarawak.

**Topic: Breakout 3 | Symposium 8 (P): Transitions of Geriatric Care**

## FACULTY



### Dr Liew Houng Bang

Hospital Queen Elizabeth II  
Malaysia

Dr Liew Houng Bang graduated from The Queen's University of Belfast, UK in 1993. He returned to work in Ministry of Health, Malaysia in 1995. He is a member of the Royal College of Physician, UK since 1998, and a conferred a Fellowship from the Royal College. He was awarded Fellowship from Asia-Pacific Society of Interventional Cardiology (2007), National Heart Association of Malaysia (2008), Asean Federation of Cardiology (2014) and Asian Interventional Cardiovascular Therapeutics (2014). He furthered his professional training in Cardiology Fellowship at Sarawak General Hospital in 2002, and Boxhill Melbourne in 2006; and subspecialised in interventional cardiology. Currently, he is the head of the Cardiology Department of Queen Elizabeth II Hospital (QEH II), Kota Kinabalu as well as the head of the Clinical Research Centre, QEH II, providing cardiology consultation for inpatient and outpatient services, including on-call cover, emergent/elective invasive diagnostic and PCI services, as well as non-invasive cardiology procedures, which include Coronary Care Unit, Cardiology HDU, Cardiology Ward, and advanced Cardiac Imaging (including 64MSCT). He obtained Good Clinical Practice (GCP) certification in 2002 and subsequently became a trainer in GCP in 2006. He is Principal Investigator for Clinical trials and registries including Onxy One study and first-in-man studied of drug eluting balloons. He has been invited as a speaker in numerous International and regional Cardiology Conferences and also as a panelist in reviewing Clinical Practice Guidelines on the management of cardiovascular diseases. He is also a chairperson and steering committee for NCVD PCI registry, and a member of Asia Pacific Consensus group on drug coated balloon.

**Topic: Breakout 3 | Symposium 7 (C):** Coronary Artery Disease in Elderly: The Challenges of Diagnosis and Management

## FACULTY



### Dr Warren Lo Hwa Loon

Hospital Kuala Lumpur  
Malaysia

Dr Warren Lo Hwa Loon is a consultant urologist whose primary area of practice encompasses a wide range of urological disorders such as urinary stones, urinary tract malignancies, and recurrent urinary tract infections. Dr Lo completed specialized fellowship training in female urology, neuro reconstructive urology, and functional urology at the University Hospital California Davis in California, United States, and the Queen Elizabeth University Hospital in Glasgow, United Kingdom. Additionally, he is a robotics surgeon with extensive training and European certification who specializes in a variety of challenging robotic procedures for prostate and kidney cancer. He participates in health awareness programs and workshops in Malaysia, Indonesia, Vietnam, Korea, and Australia. He is currently the lead investigator for a few multi-centric international research. As an adjunct professor for Universiti Sarawak Malaysia, he also serves as an examiner for the Malaysian Urological Board Examinations.

**Topic:** Management of Overactive Bladder in Older People

## FACULTY



**Dr Nor Hakima Makhtar**

Hospital Tengku Ampuan Rahimah Klang  
Malaysia

Started Geriatric Service in Hospital Melaka in 2016-2020 and currently working as Consultant Geriatrician in Hospital Tengku Ampuan Rahimah since Feb 2020. Involved actively in Covid 19 management especially in older adults with Covid 19 infection and working hand in hand with rehab team in Post covid rehabilitation. Also dealing with Nursing Home Covid 19 outbreak with primary health care in PKD Klang during covid 19 outbreak in 2020-2021. A team member for Covid 19 Task Force in Klang Valley and contributed to Covid -19 Management Plan in Residential Aged Care Facilities (RACF).

**Topic: Round Table Discussion:** Lessons Learnt From Covid-19 Infection in Older Population: Vaccination, Primary Aged Care, Long Term Care

## FACULTY



### Ms Puspa A/P Maniam

Hospital Kuala Lumpur  
Malaysia

Ms Puspa A/P Maniam is a Speech and Language Therapist and a Subject Matter Expert in Geriatric Communication and Swallowing impairment with 15 years of experience. She is currently a senior Speech and Language Therapist at the Kuala Lumpur General Hospital where she provides evaluation and treatment services to adults with dysphagia and communication impairment. She is also involved in program planning and development for inpatient and outpatient speech therapy services including quality improvement initiatives, patient education and clinical policies and protocols. In addition, she is an adjunct lecturer at the Faculty of Health Sciences, The National University of Malaysia. Over the course of her career, she has worked in a variety of clinical settings and provided numerous regional and national presentations.

**Topic: Breakout 2 | Symposium 6 (O): Sarcopenic Dysphagia as a New Concept**



## FACULTY



### Dr Mohd Shukri Mat Saad

Hospital Melaka  
Malaysia

Dr Mohd Shukri Bin Mat Saad is an emergency physician based in Melaka. He graduated his medical degree from University of Malaya and his postgraduate training in Universiti Sains Malaysia. His interest is in Geriatric Emergency and currently in Geriatric Emergency SIG. During Emergency Medicine Scientific Meeting (EMAS) 2021, he represented as one of the speakers in geriatric lane. He also has his eyes on Sports Emergency.

**Topic: Breakout 2 | Symposium 5 (P):** Critical Care of Older Adults in the Emergency Department: Old Problems and New Solutions

## FACULTY



### Dr Rizah Mazzuin Razali

Hospital Kuala Lumpur  
Malaysia

Dr Rizah Mazzuin Razali graduated with Masters in Internal Medicine in 2009 from University of Malaya. She completed her fellowship in Geriatric Medicine training at the Royal Adelaide Hospital, South Australia in 2014. Dr Rizah is currently the Head of the Geriatric Unit and Internal Medicine Physician at the Department of Medicine at Kuala Lumpur Hospital. She is also the Head of Geriatric Unit of Cheras Rehabilitation Hospital. Dr Rizah has been a member of many national and hospital committees concerning internal and geriatric medicine. She is a member of the National Geriatric Training Committee for MoH as well as the Geriatric Education Subcommittee member for MMC and has contributed to several guidelines and papers concerning Geriatric Medicine for the country.

**Topic: Breakout 4 | Symposium 9 (P):** Rehabilitation in Older Patients with Long Covid

## FACULTY



**Ms Nur Aliaa Arif Md Ariff**

Hospital Kuala Lumpur  
Malaysia

Nur Aliaa is a speech and language therapist graduated from the National University of Malaysia in 2014. Currently, she works at Hospital Kuala Lumpur managing various communication and swallowing disorders in both children and adult population. She had been actively involved in the geriatric multidisciplinary team especially in providing speech and language therapy services in the acute geriatric ward. She has also presented talks and researches in numerous national symposiums and conferences.

**Topic: Breakout 2 | Symposium 6 (O): Optimizing Communication in Dementia Care**

## FACULTY



**Mr Adha Nawawi**

Hospital Kuala Lumpur  
Malaysia

Dedicated and experienced Physiotherapist with over 13 years of experience of practicing physiotherapy in private and government sector. Obtain Bachelor of Physiotherapy in UKM and graduate in 2009. Currently pursue Master in Health Science (UiTM). The area of research is Sarcopenia among elderly population. Had involve in many research activities and publication. Had attend various course in Physiotherapy field. Now, Completing e-Training in Geriatric and Gerontology.

**Topic: Breakout 6 | Symposium 13 (C): Geriatric Palliative Care: Integrated Care Model for Peri-End-Of Life Support**

## FACULTY



### Dr Terence Ong Ing Wei

University of Malaya  
Malaysia

Dr Terence Ong is a consultant geriatrician and lecturer at the University of Malaya, and Visiting Associate Professor with School of Medicine, Taylor's University. He completed his specialist and research training at Nottingham University Hospitals and the University of Nottingham. He has an interest in improving musculoskeletal health and fragility fracture treatment among older people. Dr Ong also serves on the committee of the Malaysian Osteoporosis Society, Fragility Fracture Network Malaysia and the Asian Working Group for Cachexia. He currently serves on the editorial board for Age and Ageing and the Medical Journal of Malaysia. Dr Ong believes that improving patient-centred clinical service requires data-driven continuous audits and quality improvement cycles.

**Topic: Breakout 2 | Symposium 4 (C): Perioperative Medicine for Older Patients: How Do We Deliver Quality Care?**

## FACULTY



### Dr Ong Tiong Kiam

Pusat Jantung Sarawak  
Malaysia

Dr Ong Tiong Kiam is currently a Senior Consultant Cardiologist and Head of Department of Cardiology at the Sarawak General Hospital Heart Centre, Malaysia. He earned his medical degree from the University of New South Wales, Australia and went on further to obtain several other professional qualifications. Besides his current responsibility as a Course Director for Siemens Clinical Training Workshop on Cardiac CT, he is Adjunct Lecturer at the Faculty of Medicine & Health Sciences, UNIMAS, Visiting Consultant Cardiologist at Kuching Specialist Hospital and a Member of the Credentialing Committee for the National Specialist Register Subcommittee for Cardiology. Dr. Ong is an active member of various professional bodies such as the National Heart Association of Malaysia, Society of Pacing and Cardiac Electrophysiology of Malaysia, Society of Cardiovascular Computed Tomography and the Asia Pacific Society of Interventional Cardiology. He has an impressive track record in conducting investigator initiated and industry-sponsored research (ISR). Since 2002, he was Principal Investigator and Co-Investigator for almost 90 trials. He has also authored numerous papers reporting clinical findings in international peer-reviewed journals. His latest publication was accepted and published in the International Journal of Cardiology and BMJ Open. Despite his busy schedule, Dr Ong has presented at various international meetings on his areas of expertise.

**Topic:** When Aging Meets Atrial Fibrillation: A Decade of Oral Anticoagulation, What have We learned?



## FACULTY



### **Prof Sajaratulnisah Othman**

University of Malaya  
Malaysia

Dr Sajar Othman is a Professor of Family Medicine at Universiti Malaya, Kuala Lumpur. She chairs the Violence Intervention Committee of Universiti Malaya Medical Centre. She is a steering committee member and a regional representative for the World Family Doctor Association (WONCA) special interest group in family violence. She provided a desk review of the Malaysian One-Stop-Crisis-Centre (OSCC) service for the World Health Organisation. Actively advocating against family violence, she contributed in the preparation of a specific legal redress against maltreatment of older people, clinical management for domestic violence and elder abuse for the Malaysian health system. As a certified clinical hypnosis practitioner and EMDR, she provides support for victims of family violence as part of her clinical services.

**Topic:** Protecting Elderly from Abuse and Neglect- Expectation, Current Reality and Closing the Gap in Multicultural Malaysia

## FACULTY



### Prof Tan Maw Pin

University of Malaya  
Malaysia

Prof Dr Tan Maw Pin is currently a Professor in Geriatric Medicine at the University of Malaya. She received her undergraduate medical training at the University of Nottingham. After passing her MRCP, she obtained a National Training Number in Geriatric Medicine at Newcastle upon Tyne, United Kingdom. During her geriatric subspecialty training, she undertook two years of full time research into falls in older people. She is now a highly research active academic and is the Principal Investigator of the Promoting Independence in our Seniors with Arthritis (PISA) Grand Challenge and the Malaysian Falls Assessment and Intervention Trial (MyFAIT). She was a co-investigator of the Malaysian Elders Longitudinal Research (MELoR) study and is now the Principal Investigator of the AGELESS study, which is a nationwide longitudinal study of ageing funded by the Ministry of Education. Her administrative roles include Research Coordinator at the Department of Medicine and Leader of the Ageing and Regenerative Medicine Research Thrust at the Faculty of Medicine. She is currently an academic editor for Plos One, and an associate editor for Frontiers in Medicine. She continues to practice geriatrics at the University of Malaya Medical Centre, and had set up the Falls and Syncope Service at the University of Malaya, as well as chairs the hospital inpatient falls committee.

**Topic:** Management of mild cognitive impairment

**Topic:** Pneumococcal vaccines for older adults: Getting the timing right

**Topic:** When Aging Meets Atrial Fibrillation: A Decade of Oral Anticoagulation, What have We learned?

## FACULTY



### Ms Sonia Ranieng Ak Vincent

Pusat Jantung Sarawak  
Malaysia

Sonia has been a clinical dietitian and an advocate for patient-centered medical nutrition therapy for the past 8 years after graduating from University Putra Malaysia in 2011. She has years of experience in liquid nutrition for all life stages of patient, working with the multidisciplinary teams within the Hospital associated to nutrition related disease. She worked in an outpatient and inpatient setting providing dietetic service. Her career goals emphasize patient satisfaction and helping to achieve quality health outcome for patient. She started her career at Hospital Bintulu in 2013, then transferred to Sarawak General Hospital in 2017 and currently based at Sarawak Heart Centre.

**Topic: Breakout 2 | Symposium 6 (O):** Challenges of Meeting Nutritional Needs In Hospitalised Older Patients

## FACULTY



**Ms Ida Rosyany**

Nursing

Ida Rosyany is a nursing sister who has 20 years of service in the ministry of health Malaysia since year 2002. She completed Advanced Diplome in Gerontology Nursing training (ADGN) in 2006. She played an instrumental role in setting up geriatric unit in Hospital Queen Elizabeth, Sabah in 2012 and has been an integral part of geriatric service development in Sabah. She is also a clinical instructor in ADGN training programme in Sabah.

**Topic: Special Interest Group (SiG) Meet up Point 2: Physiotherapist, Nursing & Community Geriatrics**

## FACULTY



### A/P Nor 'Izzati Saedon

University Malaya Medical Centre  
Malaysia

A/P Nor 'Izzati Saedon graduated from the University of Malaya in 2006. She was selected to join the SLAB programme and the Ministry of Education in 2008. She has been pursuing medical research and teaching since then. Despite actively continuing her speciality training in Internal Medicine and subspecialty training Geriatric, she keeps grounded and raises her 3 beautiful boys. Her main research is focused on blood pressure changes in older adults. Exploring the blood pressure changes and their impact on the perfusion of the brain. Blood pressure changes in older adults are still an exploration of knowledge. Although it's important to keep your blood pressure within normal range. The blood pressure changes in the older adult are much more complex. Older adults with multiple pre-morbid conditions make the blood pressure treatment in this older group more delicate to manage. The complication that occurs with poor blood pressure management was more devastating as the organ-dependent are sensitive to changes. Cognitive impairment, falls and frailty is a devastating complication in older adults with poor blood pressure management.

**Topic: Breakout 3 | Symposium 7 (C): Geriatric Cardiology: An Emerging Discipline**

## FACULTY



### Prof Dr Devinder Kaur Ajit Singh

Hospital Universiti Kebangsaan Malaysia (HUKM)  
Malaysia

Professor Dr Devinder Kaur Ajit Singh is a lecturer at Physiotherapy Programme and Chair of the Center for Healthy Ageing and Wellness, Faculty of Health Sciences, Universiti Kebangsaan Malaysia. Prior to joining UKM in 2005, she was a practicing physiotherapist with Ministry of Health, Malaysia for 16 years. She graduated from University of Brighton, United Kingdom with a PhD in 2009. Her primary research niche area is in Geriatric physiotherapy, Spine and ageing and analysis of function. She has researched extensively into falls risk assessment in older persons and is a leader in geriatric physiotherapy research in Malaysia. Her main current ongoing projects include falls exercise program, cognitive frailty, and mobility among older persons. Her research has produced several publications in highly rated journals.

**Topic: Breakout 6 | Symposium 14 (P): Exercise Prescription in Older Persons**

## FACULTY



### Dr Sally Suriani

Klinik Kesihatan Kota Sentosa  
Malaysia

Dr Sally Suriani Ahip is a Family Medicine Specialist with the Ministry of Health Malaysia. She obtained her MBBS degree from Universiti Malaya. She completed her housemanship training in Sarawak General Hospital, Malaysia. Subsequently, Dr Sally served in Daro District Hospital in central rural Sarawak for 2 years and was the Director of Daro District Hospital. She pursued Master in Medicine (Family Medicine) training in Universiti Kebangsaan Malaysia and was awarded Doctor of Family Medicine. Dr Sally had since served as Family Medicine Specialist in several divisions in Sarawak state, including Miri, Kuching and Samarahan. In 2016, she was awarded the Ministry of Health Malaysia scholarship to pursue her Community Geriatrics training in The Queen Elizabeth Hospital, South Australia. She is currently the Head of Family Medicine Specialists Services in Samarahan Division and the Head of Kota Samarahan Health Clinic. Dr Sally has also founded Unit GEKO (Geriatric Komuniti) in October 2019, the first national initiative for early frailty assessment and timely multidisciplinary intervention in the public primary healthcare setting. Stemming from GeKo Unit, she has developed multidisciplinary frailty intervention programmes namely FITTER, FINT, FLIP, FLOP and FEPHI. Dr Sally has been actively involved in clinical researches nationally and internationally. She has presented various papers for healthcare professionals and public engagements through community programs across a spectrum of diseases in primary care. Her passion for her work and excellent performance has earned her outstanding service awards throughout her tenure.

**Topic: Round Table Discussion:** Lessons Learnt From Covid-19 Infection in Older Population: Vaccination, Primary Aged Care, Long Term Care



## FACULTY



### Dr Clare Tan Hui Hong

Hospital Umum Sarawak  
Malaysia

Dr Clare Tan Hui Hong is a Consultant Nephrologist practicing at Hospital Umum Sarawak, Kuching. She graduated from the University of New South Wales, Australia in 1991 and obtained her MRCP (UK) in 1995. She completed her Nephrology training in 2000 and has returned and head the Nephrology Unit in Hospital Umum Sarawak since. Dr Clare is also an adjunct lecturer with Unimas and is involved in the training of Nephrology fellows and post basic renal paramedics. She has participated in many multinational trials such as SHARP, BELONG, PROGIS and the EMPA-KIDNEY.

**Topic: Breakout 1 | Symposium 1 (P):** CKD in Older Persons: Dilemma and Decision making for renal replacement

## FACULTY



### Dr Florence Tan

Hospital Umum Sarawak  
Malaysia

Dr Florence Tan is currently consultant endocrinologist and head of endocrine unit, Sarawak General Hospital. She graduated from University of New South Wales, Australia and obtained MRCP UK and later Specialist Accreditation in Endocrinology Singapore after underwent subspecialty training in endocrinology at National University Singapore. Her interests include diabetes care in special population.

**Topic: Breakout 1 | Symposium 1 (P): Diabetes and Frailty: Two Converging Conditions?**

## FACULTY



### Ms Katrina Tan Pik Munn

Beacon TCM Centre, Petaling Jaya  
Malaysia

Katrina Tan is a Traditional Chinese Medicine (TCM) practitioner specializing in TCM Pain Management. She is currently based at Beacon TCM Centre in Petaling Jaya, Malaysia. She practiced TCM at Traditional and Complementary Medicine (T&CM) Unit at MOH hospitals including Hospital Putrajaya and Institut Kanser Negara (IKN) by providing acupuncture for patients with chronic pain, poststroke and also cancer patients. She obtained her bachelor degree in Chinese Medicine from Universiti Tunku Abdul Rahman (UTAR), Malaysia and further pursue her master degree of Acupuncture-Moxibustion and Tuinaology from Henan University of Chinese Medicine, China on a full scholarship by the China Scholarship Council. Her masters' research focus on identifying the neural mechanism of acupuncture analgesia using functional magnetic resonance imaging (fMRI). Katrina is also the assistant secretary of Malaysian Chinese Medical Society of Epidemic Control and Prevention (CMEC) and member of the Specialty Committee of World Federation of Chinese Medicine Societies for Pediatric Tuina and Oncology Precision Medicine.

**Topic: Cross talk : Chronic Musculo-skeletal Pain**

## FACULTY



### Prof Tan Kit Mun

University of Malaya Medical Centre  
Malaysia

Associate Professor Dr Tan Kit Mun is a consultant geriatrician in the University of Malaya Medical Centre (UMMC). She received her medical degree from Trinity College, (MB. BCh. II Hons) University of Dublin, Ireland in 1999. Dr Tan is a member of the Royal College of Physicians Edinburgh, (MRCP) UK since 2002. She completed her specialist training and received her Certificate of Satisfactory Completion of Specialist Training (CSCST) in Geriatric Medicine from the Irish Committee of Higher Medical Training, Royal College of Physicians Ireland in 2009. She was practising as a consultant geriatrician in Dublin, Ireland until 2012. Dr Tan's special interest include stroke, atrial fibrillation, dementia, osteoporosis, hypertension in the older person and comprehensive geriatric assessment of the complex older person. Dr Tan is also an Associate Professor with the Faculty of Medicine, University of Malaya. She is a trainer for the Malaysian Geriatric Medicine Specialist Training Scheme, Masters of Internal Medicine Programme in University of Malaya as well as the University of Malaya Medical Programme (UMMP). She is a member of the Malaysian Society of Geriatric Medicine (MSGM) and participates as a speaker and presenter of research findings at the annual Malaysian National Geriatrics Conference (NGC).

**Topic:** EF as a Continuous Variable: A New Horizon for HFpEF

## FACULTY



### A/P Tan Kok Yang

Khoo Teck Puat Hospital  
Singapore

A/P Tan Kok Yang is a senior consultant general surgeon of Khoo Teck Puat Hospital Singapore. He serves as the Deputy Chairman of the Medical Board of Khoo Teck Puat Hospital, Chair of the Division of Surgery of Khoo Teck Puat Hospital, the Clinical Associate Professor for National University of Singapore and Chair of the General Surgery Residency Advisory Committee of Singapore

**Topic: Breakout 2 | Symposium 4 (C): Personalised Surgical Care for Older Patients**

## FACULTY



**Dr Athena Tang Mee Yee**

Hospital Umum Sarawak  
Malaysia

Dr Tang obtained her MBBS from University of Malaya Medical School in 2001. In 2006, she returned to University Malaya Medical School to pursue further training in Anaesthesiology and was awarded Master of Anaesthesiology in 2009. In 2011, she was awarded Fellowship of the Australian and New Zealand College of Anaesthetists. She is trained and passed the pain medicine exam in 2011 and is awarded Fellowship of the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists in 2014. Her years of working at both University Malaya Medical Centre and Sir Charles Gairdner Hospital, Western Australia have enriched her with experience to manage patients with acute pain, chronic pain and cancer pain with pharmacological, non-pharmacological and interventional approaches. She served as an associate professor for anaesthesiology in the Faculty of Medicine and Health Sciences, University Malaysia Sarawak and the consultant anaesthetist and pain specialist in Sarawak General Hospital from 2011-2019. Currently she serves as consultant anaesthetist and pain specialist at the Borneo Medical Centre, Kuching. She has been invited to speak at local and international meetings and organizing workshops to raise awareness on pain management.

**Topic: Cross talk : Chronic Musculo-skeletal Pain**

## FACULTY



### Dr Agnes Siew Ling Tey (PhD)

Nutrition R&D Center for Asia Pacific, Abbott  
Singapore

Dr Agnes Siew Ling Tey is a Lead Scientist at the Nutrition Research & Development Center for Asia Pacific in Abbott. Her research focuses on innovative dietary approaches for the prevention and management of malnutrition, cardiometabolic diseases, and obesity.

Dr Tey currently provides overall scientific leadership in her roles as the Study Chair and Lead Scientist for the Strengthening Health In ELDERly through nutrition (SHIELD) study. Her extensive experience in nutrition research includes clinical studies for diverse populations and areas of investigation such as malnutrition in the elderly, diabetes and cardiometabolic risk.

Prior to Abbott, Dr Tey was a Research Fellow with the Clinical Nutrition Research Centre at the Singapore Agency for Science, Technology and Research (A\*STAR).

Dr Tey has contributed to 48 publications, including international peer-reviewed journals and an evidence-based position statement for the National Heart Foundation of New Zealand, and is a guest editor and reviewer for several scientific journals.

Dr Tey completed her PhD in Human Nutrition and conducted her postdoctoral research at the University of Otago, New Zealand, where she also received her Master's in Human Nutrition with distinction.

**Topic:** Strengthening Health In Elderly through nutrition.



## FACULTY



**Dr Teh Ewe Eow**

Hospital Pulau Pinang  
Malaysia

Dr Teh Ewe Eow graduated from Malaya University in 1997 and completed Master degree in Psychiatry from USM in 2004. He underwent geriatric psychiatry subspecialty training in Hospital Kuala Lumpur, UMMC, Hospital Sultan Ismail in 2007-2008, and pursued further training in Westmead Hospital & St. Joseph's Hospital in Sydney in 2009. He returned as geriatric psychiatrist in 2010 and continues to serve at Hospital Pulau Pinang until now. His published research works include validation studies of Malay versions of Geriatric Depression Scale, Neuropsychiatric Inventory & Montreal Cognitive Assessment. He is currently the Head of Department of Psychiatry & Mental Health at Hospital Pulau Pinang, the Chairman of I-Life Suicide Prevention Association of Penang, Treasurer of D'Home Mental Health Association & Committee Member of Penang Dementia Association.

**Topic: Breakout 1 | Symposium 1 (C):** Mild Behavioural Impairment as Marker of Cognitive Decline?

## FACULTY



### Dr Teo Shu Ching

Hospital Umum Sarawak  
Malaysia

Dr Teo Shu Ching is currently Consultant pediatric anaesthesiologist in Sarawak General Hospital. She is also the head of department of anaesthesiology and intensive care. She completed her master program and Mmed anaesthesia in 2006, went on to sub in pediatric anaesthesia in HKL and Birmingham Children Hospital 2009-2010. Her interests are in TIVA-TCI in children, depth of anaesthesia monitoring and pediatric regional anesthesia.

**Topic: Breakout 5 | Symposium 11 (C): Case-based Discussion (2 case presentation)**

## FACULTY



### Dr Tiong Tung Hui

National Cancer Society Malaysia (Sarawak Branch)  
Malaysia

Dr Tiong Tung Hui graduated from Universiti Malaya in 1980. He trained in Ophthalmology in Kuala Lumpur General Hospital and later in UK where he obtained the FRCS Oph in 1985. Presently working as a Resident Consultant Ophthalmologist in Timberland Medical Centre, Kuching, Sarawak. He has worked as a volunteer palliative doctor with the National Cancer Society (Sarawak Branch) since 1997. Obtained the Diploma in Palliative Medicine (Cardiff University) in 1999.

**Topic: Breakout 6 | Symposium 13 (C):** Community Hospice Support for the Geri-Oncology Patients

## FACULTY



### **Prof Renuka Visvanathan**

Adelaide GTRAC  
Australia

Professor Renuka Visvanathan is Malaysian and completed her secondary schooling in Alor Star. She completed her medical training at the University of Adelaide and is the Professor of Geriatric Medicine at the University of Adelaide, a position held since 2014. She is also the Head of the Aged and Extended Care Services at the Queen Elizabeth Hospital in Adelaide, South Australia since 2005. She is the Project Lead to the National Health and Medical Research Council of Australia Centre of Research Excellence in Frailty and Healthy Ageing, a trans-disciplinary network of researchers with links to global centres. She has been a member of the World Health Organisation Clinical Consortium in Healthy Ageing since 2016. In recognition of her contribution to the field of ageing, she has been awarded fellowships by the Australian Association of Gerontology as well as the Australian and New Zealand Society for Geriatric Medicine. She has published more than 195 journal articles and 6 book chapters. As per Google Scholar, she has an index of 40 and a i10-index of 107.

**Topic:** Integrated Care for Older Persons

## FACULTY



### Dr Voon Pei Jye

Hospital Umum Sarawak  
Malaysia

Dr Voon Pei Jye is the Head and Consultant Medical Oncologist, Department of Radiotherapy and Oncology, Hospital Umum Sarawak (Sarawak General Hospital). He obtained his MRCP (UK) and Master of Medicine (Internal Medicine) from National University of Singapore in 2007. Subsequently, he received his advanced specialist training in Medical Oncology from National University Hospital Singapore. He has completed his Phase 1 Drug Development clinical research fellowship at Princess Margaret Cancer Centre, University of Toronto, Canada. He is an active investigator for numerous cancer trials encompassing early phase through to late phase studies. He has keen interest in oncology development therapeutic, health related quality of life and health care delivery as well as cancer genetic and pharmacogenomic. Dr Voon has published in various peer reviewed journals. He is a recipient for Hold'em for Life Oncology Fellowship Award, University of Toronto and he won the Scholar Training Award from AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics 2021.

**Topic: Breakout 6 | Symposium 13 (C): Geriatric Assessment in Older Patients with Cancer: A New Standard of Care**

## FACULTY



**Dr Julie Whitney**

King's College London  
England

Julie is a clinical academic physiotherapist specialising in ageing, with a particular interest in falls, frailty, cognitive impairment and rehabilitation interventions. She is a lecturer at King's College London, teaching on undergraduate and postgraduate physiotherapy courses. She has led on two fall prevention clinical trials and contributed to a number of systematic reviews. She is currently the clinical lead for the National Inpatient Falls Audit which covers England and Wales and a member of the committee contributing to the development of NICE guidelines for fall prevention. She works clinically at King's College Hospital leading a falls clinic and providing liaison services to care home residents.

**Topic:** Untangling the Relationship Between Cognition, Balance and Fall

## FACULTY



**Dr Albert Wong**

Hospital Umum Sarawak  
Malaysia

Dr Albert Sii Hieng Wong MBBS, FRCS, FRACS is the Consultant Neurosurgeon and Head Department of Neurosurgery, Sarawak General Hospital, Kuching, Sarawak, Malaysia. His special interests are in Spine disease, Cerebrovascular disease, Teaching for Unimas student, Examiner for Master in Surgery (Neurosurgery) USM and MRCS Part 3 of The Royal College of Edinburg. He invented the new stereotactic AW frame, which was published in the British Journal of Neurosurgery 2021. In total he published 35 papers in peer reviewed journals.

**Topic: Breakout 2 | Symposium 5 (P):** CSDH - Review on State of the Art in the Older Adults



## FACULTY



**Dr Yau May Yann**

Hospital Umum Sarawak  
Malaysia

Dr Yau May Yann is a Sports Physician currently working in Sarawak General Hospital, Kuching. She graduated from University Malaya with a Masters in Sports Medicine in 2017. She has been providing her services for the community that has musculoskeletal injuries, rehabilitation of post-surgery Orthopedic procedures, educating the coaches under Akademi Kejurulatihan Kebangsaan, and also a Cardiopulmonary resuscitation (CPR) trainer for general practitioners under Malaysian Medical Association (MMA) in Sabah for the last 4 years. She also does sports medical coverage in sports events internationally and nationally such as SEA Games, Sukan Institut Pengajian Tinggi (SUKIPT), Majlis Sukan Universiti Malaysia (MASUM), Majlis Kebajikan dan Sukan Anggota-anggota Kerajaan (MAKSAK), Inter-professional Games (IPG), Sukan Kesihatan Borneo dan Sukan Malaysia (SUKMA). With several certificates such as Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS), Advanced Trauma Life Support (ATLS) and Immediate Care In Rugby (ICIR) Level 1 to support her role as a medical team doctor for Sarawak United Football Club, sports physician for Sarawak Sports Corporation and Sarawak Sports School in SMK Tabuan Jaya. She is a believer that exercise is medicine and advocates everyone to participate in a healthy lifestyle and exercise whenever possible without age as a barrier. Her main interest is rehabilitation after sports injury and return to sports for athletes and recreational players.

**Topic: Breakout 6 | Symposium 14 (P):** Myth About "Being Old" - Changing the Aging" Perspective by Sports Medicine Specialist

## FACULTY



### Dr Yau Weng Keong

Hospital Kuala Lumpur  
Malaysia

Dr Yau Weng Keong, MD(USM), MRCP(UK), CMIA(Msia), FRCP(Lond) is currently a senior consultant and head of the largest medical department in the country with about 600 beds. During the COVID pandemic which started in 2020 he was actively involved in leading, planned and coordinating services for both covid patients in Hospital KL and all elderly Covid patients from Greater Klang Valley. He is actively involved teaching of undergraduate students, supervision and training of postgraduate candidates of MRCP, Master and Geriatrics Fellows. To date, he was involved in more than 60 geriatrics fellows and had been instrumental in helping UPM, IMU and RCSI Perdana University start and run their "Health Care for the Elderly" undergraduate programmes. He sits in various elderly care committees for example Private Aged Healthcare Facilities and Regulation committee and is chairperson of NSR for Geriatric Medicine. He was a principle Investigators for dementia related clinical studies, was involved in the writing of Malaysian CPGs (on Dementia and Hypertension) and reviewers of many other documents. He had also written a few chapters on various elderly care topics in 2 handbooks. As the Ministry's Head of Geriatrics Services, Dr Yau is responsible for the clinical administration, training, planning and development of geriatrics clinical services for the country. He started since year 2000 and over the years, geriatrics services continued to developed and progressed from mere 4 geriatricians in number in 1997 to about just over 60 geriatricians the whole country this year 2022. Of these 60 plus geriatricians, 31 is with MOH and they cover 14 hospitals and 21 outreach and cluster hospitals.

**Topic:** Embracing Healthy Ageing in Malaysia: The Future of Ageing in the Land of Hornbills



# Abstracts



ID : M2

**Main Author :**

Juliana Mohamed, University of Nottingham UK, United Kingdom

**Co-Authors :**

-

**Title :**

Back to the Roots, Caring for the Future: Scoping Review of Food-based Intergenerational Activities

**Background :**

Interest in intergenerational practice and its impacts has grown widely in the UK and Europe. Despite generational differences in what older people and youngsters find interesting, there are several hobbies and activities that are suitable for sharing between the generations. One such area is food-based. Food is an ordinary and regular part of people's lives. From day one of living, food can never be separated from our existence as human beings. The point is that food is an activity that can transcend age. Therefore, it is a useful avenue to investigate intergenerational co-operation and research how these activities have impacts on older people.

**Aim :**

Though many intergenerational activities are carried out, very few activities using food are recorded. This study aimed to map and locate evidence-based practices used during intergenerational activity using food to further understand the concept and its impact to the older people.

**Methodology :**

Arksey and O'Malley's five-stage scoping review framework was used and refined with the Joanna Briggs Institute methodology, to (1) identify the research questions, (2) identify relevant studies, (3) select studies, (4) chart the data, and (5) collate and summarize the data. Nine electronic databases, two grey literature sources and reference lists of relevant systematic reviews were searched from 2000- 2021. All types of study describing food-based intergenerational activities and its impacts on the older people were included .

**Results :**

All the five documents included in this review commented clearly on outcome of the program on older people as well as other generations, except for one document. Generally, the outcomes were positive . These included enhanced social inclusion and helping children to recognise other people's feelings and gain an understanding of the ageing process.

**Conclusion :**

Intergenerational food-based activities appear to be of benefit both for older and younger people. This review has identified opportunities for future research, including the need to develop and evaluate tools for screening and training, as well as exploration of the cultural and social factors that may affect program outcomes. Further studies should advance evidence-based best practices for food-based intergenerational activities.

ID : M3

**Main Author :**

Safiyah Nurnajah Wan, University of Malaya, Malaysia

**Co-Authors :**

Chiann Ni Thiam, Universiti Malaya, Malaysia

Julia Anak Patrick, Universiti Malaya, Malaysia

Terence Ong, Universiti Malaya, Malaysia

**Title :**

Sarcopenia in Hospitalised Older People: A Systematic Review

**Background :**

Sarcopenia is a condition characterised by rapid deterioration in muscle function, physical performance and reduced muscle mass due to significant physiological stress. Sarcopenia is hypothesised to be associated with hospitalisation in older inpatients due to acute illness and periods of immobility.

**Aim :**

This review aimed to examine, based on available evidences, the prevalence, muscle changes, risk factors and health outcomes of sarcopenia, defined using internationally recognized diagnostic criteria in hospitalised older people.

**Methodology :**

We searched for pre-defined search terms through six different databases. We included cohort studies that assessed sarcopenia using internationally recognised diagnostic criteria on two different time points during hospitalisation on inpatients with mean age more than 50 years with acute illness.

**Results :**

One study used the Asian AWGS criteria, one used European EWGSOP1 and three others used EWGSOP2. The prevalence of sarcopenia varied from 14.1% to 50.7% depending on the diagnostic criteria, equipment, calculation methods and cut-off points used. Two studies reported development of new sarcopenia following hospitalisation to be 14.1% and 38.7%. Risk factors included older age, longer duration of bed rest, lower baseline body mass index, cognitive impairment and activities of daily living disability. None of the studies reported health outcomes associated with sarcopenia following hospitalisation.

**Conclusion :**

There was lack of harmonisation in the utilization of diagnostic criteria and cut-off points used. More studies are needed to assess new sarcopenia following hospitalisation and should conform to defined minimum core dataset to ensure standardised analysis.

ID : M4

**Main Author :**

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**Co-Authors :**

May Esther Wong, Universiti Malaya, Malaysia

Julia Anak Patrick Engkasan, Universiti Malaya, Malaysia

Terence Ong, Universiti Malaya, Malaysia

**Title :**

Sarcopenia Among Post-Acute COVID-19 Patients

**Background :**

The Coronavirus 2019 (COVID-19) disease can involve multiorgan system disruption. Factors such as acute illness, relative immobility due to isolation, and steroid consumption as part of COVID-19 treatment can contribute to sarcopenia.

**Aim :**

This study aimed to determine the prevalence and factors associated with sarcopenia among patients more than 65 years with history of hospitalisation at Universiti Malaya Medical Centre (UMMC) for COVID-19; attending the multidisciplinary follow-up clinic.

**Methodology :**

Sarcopenia diagnosis was made based on calf circumference (male <34cm, female <33cm), hand grip strength (male <28kg, female <18kg) and 5 times sit-to-stand test ( $\geq 12$ s); per Asian Working Group on Sarcopenia (AWGS) cut-offs.

**Results :**

Fifty-one participants (mean (SD) age: 71.7 (6.4), 58.8% males were included. 78.8% of the patients had COVID-19 categories 4 and 5; assessed at an average (SD) of 81.3 (49.3) days after discharge. The prevalence of sarcopenia was 23.5%. Though associations were not statistically significant, those with sarcopenia were older (mean (SD): 73.92 (6.84) for sarcopenia vs 70.95 (6.25) for non-sarcopenia,  $p=0.457$ ), had longer days of oxygen supplementation (mean (SD): 14 (18.8) for sarcopenia vs 7.38 (7.78) for non-sarcopenia,  $p=0.81$ ), longer days in hospital (mean (SD): 19.33 (15.88) for sarcopenia vs 13.90 (8.87) for non-sarcopenia,  $p=0.125$ ), longer days of steroid treatment (mean (SD): 9.83 (10.23) for sarcopenia vs 8.28 (6.16) for non-sarcopenia,  $p=0.244$ ) and had higher steroid bioequivalent dose (mean (SD): 598.65 (696.10)mg for sarcopenia vs 490.63 (479.59)mg for non-sarcopenia,  $p=0.500$ ).

**Conclusion :**

Sarcopenia can occur among post-acute COVID-19 patients and more studies should be done to accurately assess these muscle changes.



ID : M5

**Main Author :**

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**Co-Authors :**

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Riris Megawati, STIKES Telogorejo, Indonesia

**Title :**

Phenomenological Study: Searching For The Spiritual Needs Of The Elderly Duing The Covid-19 Pandemic

**Background :**

The global COVID-19 pandemic has changed various aspects of people's lives, including the pattern of worship. Changes in the pattern of worship are very influential because it is the main dimension for the elderly. Exploration of the spiritual needs in the elderly is important to get a holistic picture of spiritual needs due to changes during the COVID-19 pandemic. The study aimed to explore the spiritual needs of the elderly during the COVID-19 pandemic.

**Aim :**

The purpose of this study was to explore the spiritual needs of the elderly during the COVID-19 pandemic

**Methodology :**

Qualitative research design with a phenomenological approach is used in this study. In this study, the researcher was the main instrument and was supported by a laptop and a zoom application for online with in-depth interviews. Purposive sampling with inclusion criteria was used to get a total of 10 participants who were aged 60-97 years. Qualita-tive data were analyzed using the van manner method with an interpretative approach

**Results :**

The findings showed four main themes, which were: (1) Changes in my emotions when facing situations during the pandemic; (2) My inner conflict in carrying out worship ritu-als; (3) Obeying health protocols as an effort to carry out spiritual activities; (4) My dream to pursue a better life.

**Conclusion :**

Changes in worship patterns due to the pandemic have a significant impact on the spir-itual needs of the elderly. Fulfilling the spiritual needs of the elderly can be carried out thoroughly. Starting from the preparation of online worship to the preparation of elderly-friendly online worship equipment.



ID : M6

**Main Author :**

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Tan Guo Jeng, Pusat Perubatan University Malaya, 2ageing And Age-Associated Disorders Research Group, University Of Malaya, Malaysia

**Title :**

The Relationship Between Falls And Cognitive Performance

**Background :**

Falls have been identified among the top ten leading cause of deaths in people aged more than 65 years with an incidence rate of approximately 20% annually worldwide and in Malaysia it is reported as 19.1% to 47.0%. 1 in 7 older Malaysians experience at least one fall over a 12-month period.

**Aim :**

To determine the relationship between falls and cognitive performance in over four years' follow-up.

**Methodology :**

The Promoting Independence Among our Seniors with Arthritis (PISA) involved 230 older Malaysians with and without knee osteoarthritis (OA), mean age of 66.93 (standard deviation 7.12) years, that have been followed up from 2015 to 2019. We asked if they have had a fall in the last 12 months at every visit, while collecting data on demographics, physical and psychosocial attributes. 83 participants were excluded due to missing data at baseline or loss to follow-up. Only 147 participants were selected for further analysis. Falls in the past 12 months were determined through retrospective recall. Cognitive performance was determined using the trail making test (TMT) A and B. Comparisons were made between the baseline and follow up scores. Missing data were replaced with the last observation carried forward.

**Results :**

Falls were associated with poorer cognitive function cross-sectionally, but it was not associated with poorer cognitive performance or cognitive decline prospectively. Marital status, ethnicity and number of medications were associated with falls cross-sectionally. Among fallers, those with abnormal TMT-B at baseline, 5(13.9%) transitioned from impaired at baseline to normal at follow up. Among non-fallers on the other hand, those with normal TMT-A at baseline, 4(3.6%) transitioned from normal at baseline to cognitively impaired at follow up

**Conclusion :**

Falls were associated with poorer cognitive performance cross-sectionally, but was not associated with poorer cognitive performance or cognitive decline prospectively over four years' follow up.

ID : M7

**Main Author :**

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**Co-Authors :**

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Mas Suryalis Ahmad, Faculty of Dentistry MARA University of Technology Malaysia (UiTM), Malaysia

**Title :**

Prosthodontic Consideration For An Elderly Patient With A History Of Untreated Unilateral Condylar Fracture.

**Background :**

Condylar fracture in the elderly patient is challenging to diagnose due to edentulous hence lack of occlusal contacts. A conservative nonsurgical approach is usually a choice of the surgeon when the surgical treatment is not feasible as the outcome is the same. However, the complications such as facial asymmetry, mouth opening limitation, jaw deviation, and disharmony occlusion could occur when the treatment protocol is not followed.

**Aim :**

This case report will highlight the consideration of a multidisciplinary team between special care dentistry and prosthodontic in managing a geriatric patient with a shortening left condylar neck fracture due to trauma. Inevitably, a thorough understanding of the patterns of fractures in the elderly population is essential for the more appropriate management and to develop more effective treatment strategies and possibly prevent further complications.

**Methodology :**

A 67-years-old male has underlying infective endocarditis and on regular medication requested a replacement of his missing dentition. Upon examination, he informed the history of a motor vehicle accident about 5 years ago and had unfixed multiple facial bone fractures. Extraoral examination revealed a class III skeletal profile with an asymmetrical face. He has clicking when opening and closing on both sites of his temporomandibular joint (TMJ) and deviation to the left during the opening with a normal mouth opening. The occlusal analysis revealed a malocclusion of a vertical incisal overlap with crossbite on the left side and hyper eruption of teeth on the right side and with no posterior teeth. Condylar scale morphology methods (CMS) revealed a left condylar process shortening compared with the healthy side.

**Results :**

With the sign of the late complications resulting from untreated fractured and to address the patient's need, both upper and lower partial denture was constructed with monoplane occlusion on the left side was opted to harmonize the current occlusion.

**Conclusion :**

The long term facial bone trauma can affect future dental treatment as it is affecting the quality of life of a patient. Other than surgery, modification of an appliance can help accommodate the deficiency.

ID : M8

**Main Author :**

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**Co-Authors :**

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Lik Han Ong, Universiti Malaysia Sarawak, Malaysia

Faris Kamaruddin, Sarawak General Hospital, Malaysia

**Title :**

The impact of the 4th Wave of COVID-19 pandemic on surgery for Geriatric Neck of femur fracture.

**Background :**

There have been concerns that health care reorganizations during the COVID-19 pandemic have led to delays in geriatric neck of femur (NOF) fracture surgeries, resulting in increased complications and even mortality.

**Aim :**

This single center retrospective observational study examined impact on the time of presentation to healthcare (TPHC), time to surgery (TTS) and length of stay (LOS) for geriatric neck of femur fracture surgery during the 4th wave of COVID-19 pandemic in Kuching, Sarawak.

**Methodology :**

Data was collected for elderly patients ( $\geq 60$  years old) from NOF Fracture Database, Arthroplasty Unit, Sarawak General Hospital, Kuching, Sarawak. Thirty patients were admitted during the 4th Wave of COVID-19 pandemic between March 29, 2020 and December 31, 2021. Parameters including TPHC, TTS, perioperative complications, intraoperative estimated blood loss (EBL), and LOS were documented. The data of this current cohort of patients were also compared with data of a control group of 18 patients who presented with NOF fractures before the 4th wave COVID-19 pandemic (December 20, 2020 until March 28, 2021).

**Results :**

A total of 30 surgeries were included during the study period. The mean TPHC was 2.27 days, compared with 1.8 days in the control group before the 4th Wave. The mean TTS during the 4th Wave was 8.63 days, whereas the mean waiting time before the 4th Wave was 9 days, resulting in an average of 4% decrease in surgery waiting times during the period of 4th Wave. LOS was 13 days (13.2 days in control group). There were 8 perioperative complications reported (vs 4 in control group). Intraoperative EBL was 552ml (vs 436ml in control group).

**Conclusion :**

Although the health care reorganizations due to the 4th wave COVID-19 pandemic and patient prioritization to postpone elective surgery have reduced geriatric NOF fracture TTS as much as 4%, the delayed presentation of patients to health care facilities has led to increased perioperative complications and intraoperative EBL. Further implementation of Orthogeriatric care and Enhanced Recovery After Surgery (ERAS) protocol can improve the quality of care for hip fractures among geriatric patients.

ID : M9

**Main Author :**

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**Co-Authors :**

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Ankimtay Rutel, Sarawak General Hospital, Malaysia

Faris Kamaruddin, Sarawak General Hospital, Malaysia

**Title :**

Does the Rogmark score and type of surgery affect the Time to Surgery and Length of Stay for Geriatric Femoral Neck Fracture?

**Background :**

Neck of femur fracture (NOF) is increasing as societal aging is foreseen in Malaysia in the next few decades. The simplicity of Rogmark score (RS), also known as Sernbo Score, has been an appropriate predictor of postoperative mortality and traditionally provides guidance for surgeons to recommend patients to either total hip arthroplasty (THA) or hemiarthroplasty (HA). It has been a concern that decision making on type of arthroplasty surgery based on RS may prolong the time to surgery (TTS) and length of stay (LOS) in our institution.

**Aim :**

We would like to examine its effect on TTS and LOS.

**Methodology :**

A retrospective review of 52 patients admitted to orthopaedic department in Sarawak General Hospital was conducted from December 2020 to December 2021. The decision regarding HA or THA was largely based upon the RS. The majority of patients with a score of  $\geq 15$  received THA and  $< 15$  received HA. Pearson correlation test was conducted to examine the relationship between RS with TTS and LOS. TTS and LOS between patients for THA and HA were compared with Independent samples t-test.

**Results :**

A total of 52 patients (13 males/39 females), mean age 74.8 years (60–89), with NOF who underwent 31 THA and 21 HA. The mean overall RS was 18.1 (range 11–20); 19.4 (14–20) for THA patients, 16.1 (11–20) for HA patients. RS was not correlated to TTS and LOS ( $p=0.064$  and  $0.1$  respectively). The mean TTS was 6.9 days (2–14) and 9.8 days (2–21) for HA and THA respectively ( $p=0.071$ ). The average LOS was 11.7 days (6–21) for HA and 13.6 days (5–25) for THA ( $p=0.352$ ).

**Conclusion :**

The Rogmark scoring system and its guidance for surgery decision was not shown to affect TTS and LOS. However, the overall average TTS and LOS in our institution were longer than the combined mean duration of developed countries. These play a cumulative role in the inflating costs on a strained healthcare system in a developing country. Implementation of Orthogeriatric care has potential for efficiency improvement.

ID : M10

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**Title :**

Use and safety of denosumab in geriatric patients with osteoporosis and renal impairment

**Background :**

Denosumab, Rank-ligand inhibitor is approved for osteoporosis treatment in patients with or without chronic kidney disease (CKD).

**Aim :**

To assess differences in clinical features and safety of denosumab usage between those with and without renal impairment.

**Methodology :**

All patients on denosumab in geriatric clinic, Hospital Kuala Lumpur were recruited in a retrospective study, using a standard protocol. Demographic data, clinical features, and treatment-related adverse effect (AE) were collected. Creatinine clearance (CrCl) was calculated using Cockcroft-Gault formula. Patients with CrCl between 15-30ml/min (CKD stage 4) were categorized to the renal impairment group, and those above 30ml/min to non-renal impairment group.

**Results :**

80 patients were included, of whom 85% were female, with mean age of  $81.92 \pm SD 7.23$  years. 25 patients (31.3%) with CKD stage 4 were categorized as the renal impairment group. There were no statistically significant differences in demographic variables (age, sex, ethnicity), previous history fragility fracture (FF), and AE between renal and non-renal group. Clinical Frailty Scale (CFS) were rather similar with majority patients in moderate frailty (Renal: CFS mean:  $5.36 \pm SD 0.76$ ; non-renal: mean:  $5.40 \pm SD 1.21$ ). Overall, nearly half (42.5%) of our patients had history of fall and 45% patients had previous FF. 40% in renal impaired group had previous FF (spine: 20%, hip: 16%, multiple sites: 4%). 47.27% patients in non-renal group had FF (spine: 25.45%, hip: 12.72%, multiple sites: 3.63%, forearm: 1.82%). Baseline Dual-energy x-ray absorptiometry scan (DEXA) was done in 87.5% patients, with mean T-score being lower in non-renal group (neck: -2.897 vs -2.750, spine: -2.594 vs -2.244), though statistically insignificant ( $t(51)=0.516, p=0.608$ ). Mean calcium level post second doses denosumab was significantly higher ( $2.43 \pm SD 0.11$ ) than baseline ( $2.38 \pm SD 0.10$ ),  $t(56)=-2.929, p<0.005$ . No incidence of hypocalcaemia was reported. Only mild AE were reported in renal and non-renal impaired group, like hypophosphatemia (1.25% vs 2.5%), itchiness (2.5% vs 1.25%). None had reported subjectively of more susceptible to infections while on denosumab.

**Conclusion :**

Usage of denosumab was generally safe in our cohort patients with renal impairment, with low incidence of mild AE and no statistically difference as compared with patients without renal impairment.

ID : M11

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**Title :**

Multidisciplinary team meetings delay the time to carotid endarterectomy in patients with stroke and TIA

**Background :**

Carotid artery stenosis is a leading cause of stroke. European Stroke Organisation recommends carotid endarterectomy (CEA) within two weeks of the ischaemic event in patients with 50% to 99% stenosis<sup>1</sup>. Anecdotal department evidence suggested that CEAs are delayed. Multidisciplinary team meetings (MDTMs) offer optimal care for selected patients but are postulated as a reason for the delay.

**Aim :**

This audit aims to reduce the delay to CEAs in patients with carotid artery stenosis.

**Methodology :**

We performed a retrospective audit evaluating CEAs delivered between 1/10/2021 to 31/3/2022. Critical steps in care are recorded with dates, including the time from symptom to imaging, vascular referral, clinic appointment and operation. The median number of days between each step was collated and analysed.

**Results :**

Sixteen patients were identified. 50% of CEAs were performed within two weeks. All patients had a median delay of 14 days from symptom to operation. 50% of patients met the two-week target (median of eight days), while 50% were delayed (median of 21 days). Patients referred to MDTMs did not meet the two-week target (median of 15.5 days), while patients who were directly booked for vascular clinic appointments without MDTMs met the two-week target (median of seven days).

**Conclusion :**

This audit shows that MDTMs delay the time to CEAs. Therefore, patients with imaging-confirmed stenosis and fit for surgery should be booked into the vascular clinic without MDTMs. This audit has led to the agreement of a formalised pathway with a set target number of days between each step to reduce delay in more complex patients requiring MDTM. A prospective audit assessing the effectiveness of the new pathway is ongoing.

**ID :** M12

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**Title :**

First experiences of intravenous ferric derisomaltose in iron deficient older Malaysian patients

**Background :**

Iron deficiency (ID) impacts about 50% of elderly patients and is the leading cause of anaemia (IDA). Beyond the development of anaemia, ID may increase the risk for developing cancer or heart failure plus susceptibility to infection and leads up to 90% increased risk for mortality over a 14-year timeframe.

**Aim :**

Oral iron is often not tolerated or the absorption is suboptimal due to upregulation of hepcidin, the regulatory hormone of iron, in patients with chronic diseases or underlying inflammation commonly observed in elderly patients. Additionally, patients of more advanced age often have poorer absorption and are taking concomitant medications which may impair iron absorption from dietary or supplemental sources. For this reason, there has been increased interest for intravenous (IV) iron, especially products enabling single infusions of  $\geq 1000\text{mg}$  iron.

**Methodology :**

In Malaysia, ferric carboxymaltose (Ferinject®; FCM) and ferric derisomaltose (FDI; Monofer®) are newly introduced with limited data in the local population. Despite similar safety profile for hypersensitivity reactions, FCM caused severe hypophosphataemia in over 10% of patients in a US head-to-head clinical trials (versus 0% with FDI). As hypophosphataemia is a concern in the elderly we introduced FDI to manage IDA at our institution and describe initial experiences from 6 female patients (68-89 years old) with various comorbidities. All received 1000mg iron (10mL FDI) diluted in 100mL normal saline in the outpatient setting. The target was symptom relief and the correction of anaemia and iron parameters (targeting serum ferritin  $>100\text{ng/mL}$  and transferrin saturation [TSAT]  $>20\%$ ).

**Results :**

Patients had a baseline haemoglobin (Hb) concentration of 9.8g/dL which improved to 12.1g/dL by the follow-up visit at 35-43 days post infusion. Serum ferritin improved by 287ng/mL with all patients achieving values  $>100\text{ng/mL}$  (108 – 509ng/mL). Similar improvements were achieved for TSAT, with baseline increasing from a mean of 10.8% to 25.0%. The correction of laboratory parameters was also accompanied by improvements in common symptoms (such as fatigue) that most of the patients were experiencing. No adverse reactions were observed.

**Conclusion :**

High dose IV iron using FDI may be an option for symptomatic older ID patients not suitable for oral iron and requiring correction of their iron deficiency.



ID : M13

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**Title :**

Qualitative researcher's preliminary experiences of the study on the transition to retirement among urban older Malaysians.

**Background :**

Malaysia entered Aging Nation status in 2020 with 7% of population at age 65 and above. The shift of demographics underscores the need to address the phenomenon of retirement to cater towards the older population and to create a legacy of better-informed retirement amongst the younger generation, found in studies to look towards parents and grandparents as their main source of retirement information.

The well-being of early retirement has been identified as an important predictor of an individual's future well-being (Hansson et al., 2017). The retirement experience is difficult to cope with as the transition is hurdled by multiple losses of financial stability and income, routine, purpose, social connections, sense of identity and self-esteem, often a key factor in triggering neurotic breakdowns in old age (Berk, 2017, pp. 634-637; Harris, 1983, p. 527). In pre-retirement preparation, the elderly often go to the lengths of financial planning as it is well supported by financial institutions (Osborne, 2012, p. 46), but the awareness for psychological preparation is lacking despite its significant impact.

**Aim :**

By uncovering pre-retirement preparations and psychological awareness, and the challenges faced in adjusting to retirement, this study journeys through personal retirement experiences and hopes to surface the resources and strengths that facilitate the establishment of a retirement life that is satisfying, meaningful and sustainable for improved mental wellbeing in old age.

**Methodology :**

Centred upon the research question of "What are the psychological experiences of retirement amongst urban older Malaysians?", this qualitative study is conducted over two in-depth interviews to uncover the experiences of retired elderly Malaysians of 2-5 years, as they navigate through the different retirement adjustment stages (Victor, 1994).

**Results :**

Preliminary experiences have shown that participation in some form of work to be a common coping method, although, freedom from work stress holds a key value in their decision for work. Elderly with hobbies cultivated from pre-retirement seem to also benefit from continuity and retention of pre-retirement life activities and provided a meaningful and rewarding way to cope with occupying time.

**Conclusion :**

The study is on-going at time of submission, more data will be shared.

ID : M14

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**Title :**

Geographical Variation in Cognitive Performance among Malaysia Older Adult: A Preliminary Study of AGELESS

**Background :**

Geographical variations in socio-environmental factors may contribute to dementia aetiology. Studies comparing cognitive performance between rural and urban populations have, however, been limited. This study, therefore, aimed to evaluate cognitive performance among Malaysian older adults residing in urban and rural areas.

**Aim :**

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**Methodology :**

Participants of the TrAnsforminG CognitivE Frailty into Later-LifE Self-Sufficiency (AGELESS) study which comprised ≥60 years residing in Klang Valley (urban) and Jemaluang, Johor (rural) were included. Cognition was screened using the Montreal Cognitive Assessment (MoCA) test, Visual Cognitive Assessment Test (VCAT) and Digit Span. Cut-offs of ≥26 points, ≥25 and ≥6 (backward) respectively were utilized to evaluate cognitive impairment with the Clinical Dementia Rating (CDR) scale. The DSM-V criteria for minor and major neurocognitive disorder (NCD) were determined by consensus panels.

**Results :**

Of the 182 urban and 48 rural participants assessed, 29 (16%) and 24 (50%) scored below the cut-offs in ≥2/3 tests. 7/29 urban and 16/24 rural participants had CDR assessments. The CDR ratings 0 and 0.5 were assigned to four and three urban participants and 0, 0.5 and 1 assigned to four, ten and two participants respectively. The DSM-V diagnosis of no NCD made for three urban and two rural, minor NCD three urban and 12 rural, and major NCD one urban and one rural. One rural participant was considered inconclusive due to speech impediments.

**Conclusion :**

Our preliminary findings suggest that older rural residents were more likely have minor-NCD compare to older urban residents using the DSM-V criteria. This may not necessarily be an indication that rural individuals are more likely to develop dementia, but may highlight cultural issues with current assessment tools as well as diagnostic criteria.

ID : 002

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**Title :**

Geriatric Oral Health : Random Approach to enhance Oral Care

**Background :**

The health of oral cavity is critical to general health and nutrition status directly, but maintaining oral health is definitely difficult and different in old age. Even though, few elderly presenting with physical and deteriorated mental situation that call for particular interest in the dental workplace, one should not presume that all elderly community shares these circumstances. ( P Abd Razak.K M Jose Richard et al, 2014) In order to achieve health, it is necessary to know few aspects of old age. The design and implementation of systematic oral care protocols for elderly patient in long term care comes with many challenges. Although a specific protocol must be tailored to meet the unique needs of the individual patient, there are certain factors common to elderly segment of the population that may influence these protocols. In understanding the gap (Elaine & Howard,2020), a recent paper by Dr. Shosh Shahrabani entitled, "Factors affecting oral examinations and dental treatments among older adults in Israel" points out interesting factors that influence older adults oral care. The study aims to understand the reasons why the ability to maintain good oral health is compromised in geriatric population.

**Aim :**

This paper has two discrete yet interrelated aims. Firstly, in relation to current available evidence and based on a sound knowledge of oral physiology, identify barriers to effective oral hygiene. Subsequently, effectiveness of methods using 'toothbrush' for bedridden elderly population. Following that, identify recommendations for practice and future intervention studies.

**Methodology :**

20 bedridden resident from nursing home who requires intensive oral care, introduction of toothbrush for oral care

**Results :**

To date, there is no definitive evidence to determine the most appropriate method of oral hygiene in long term care facilities including the use of beneficial mouth rinses.

Barriers identified in this review to providing optimal hygiene include: (1) mechanical barriers and equipment issues, (2) perceptions of the importance of oral care, (3) altered patient sensory perception and discomfort (4) difficulties in patient communication, (5) challenges for nurses.

**Conclusion :**

Suggesting that oral care with toothbrush has enhanced the cleanliness of oral cavity and useful in preventing pneumonia in elderly residents who stays in nursing home

ID : O03

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**Title :**

Prevalence And Determinants Of Drug Related Problems Among Elderly Patients Receiving Home Medication Review

**Background :**

Elderly patients are at risk of drug related problems (DRPs) due to polypharmacy, pharmacokinetic and pharmacodynamic changes, and age-related physical and cognitive alterations. Home medication review (HMR) is postulated as one of the important pharmaceutical services to detect and alleviate DRPs through interventions by pharmacists.

**Aim :**

To identify the prevalence and determinants of DRPs among the elderly aged 60 years or older receiving HMR from pharmacists, as well as the acceptance rate and the outcome of interventions made during HMR, related to the changes of number of medications, anticholinergic burden (ACB) score and number of fall-risk-increasing drugs (FRIDs)

**Methodology :**

A retrospective observational study using secondary data obtained between 2015 to 2019 based on the HMR report forms from three centres under Ministry of Health Malaysia. Descriptive statistics were performed to determine the prevalence and types of DRPs. Paired t-test was used to determine the significance of changes in total number of medications, number of FRIDs and ACB score. Linear regression analyses were performed to identify the determinants of DRPs.

**Results :**

A total of 156 elderly patients were included in the study. The mean and SD age of participants was 75.2 (8.7) years old. A total of 94.9% of the participants had at least one DRP. A total of 388 DRPs was identified and 500 interventions were provided. The prescriber acceptance rate for the pharmacist interventions was 80.4%. Significant determinants for DRPs were number of medications ( $p < 0.001$ ), presence of polypharmacy ( $p = 0.001$ ) and participants with peripheral vascular disease (PVD) ( $p = 0.008$ ). Chronic obstructive pulmonary disease (COPD) indicated significant negative linear relationship with DRPs ( $B = -1.3$ , 95% CI -2.363, -0.238,  $p = 0.017$ ). HMR was also found to significantly reduce the number of medications, ACB score and number of FRIDs.

**Conclusion :**

DRPs were high among the elderly patients despite the high acceptance rate of interventions in HMR. Determinants of DRPs found to be high number of medications, polypharmacy and presence PVD. Furthermore, HMR was also found to be an effective service by pharmacists in reducing the number of medications, ACB score and number of FRIDs. The prescriber acceptance rate of pharmacists' intervention during HMR was also substantially high.

ID : 004

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**Title :**

The Development Of An Exercise Programme As Prevention For Acute Sarcopenia Among Hospitalized Older Person

**Background :**

Acute illness combined with hospital immobility increases the risk of acute sarcopenia leading to severe health consequences. Muscle loss can be mitigated via exercise.

**Aim :**

To develop a structured exercise programme to prevent acute sarcopenia among hospitalized older persons.

**Methodology :**

This programme was developed with a comprehensive review of existing literature on sarcopenia-exercise intervention, an expert panel review (expertise in geriatric, sports and rehabilitation medicine), and internal consensus from the research team. The American College of Sports Medicine and World Health Organization (2011) guidelines and relevant articles guided the researchers on designing the exercise prescription that can be delivered in a hospital setting. Through a series of iterative discussions, the programme, called Preventive Exercise Activities for Acute Sarcopenia in the Elderly (P-EASE), was developed and is available as a booklet with an exercise diary.

**Results :**

P-EASE is a supervised, structured, evidence-based multi-component programme. It consists of aerobic, strengthening, balance, coordination and endurance exercises targeting upper limb, respiratory, trunk and lower limb muscles. Patients are recommended to have 5 sessions per week with each session lasting for 30 minutes. The equipment required is readily available to most rehabilitation services (e.g. chair with armrest, measuring tape, cones, hand exercise webs and different weighted exercise balls). Exercises include: thoracic expansion, partial sit-to-stand, standing pivot transfer, handgrip, single leg ball kick, ball throw and catch, full sit-to-stand, walking, overhead stretch, shoulder stretch, hamstring stretch and ankle stretch. P-EASE also provide suggestions for exercise progression in frequency, duration and intensity, and warning signs to look out for.

**Conclusion :**

P-EASE is a supervised exercise programme specifically for older person to reduce the risk of acute sarcopenia during hospitalization. Its feasibility to be delivered within the challenges of an acute hospital needs to be evaluated.

ID : 005

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**Title :**

Fragility Fracture Management of a Tertiary Centre in Kelantan

**Background :**

Hip fracture mortality can range between 20-40% and the complications may include chronic pain, increased dependency and poorer quality of life.

**Aim :**

The aim of this study is to understand the current fragility fracture and osteoporosis management in HRPZII.

**Methodology :**

A retrospective audit was done using the medical records in HRPZII to review all inpatient elderly age 60 and above with hip fracture from January 2020 to February 2022. A total of 28 admissions were obtained. Non fragility fractures such as MVA were excluded. A final total of 15 patients were included in this study.

**Results :**

Our study population were elderly with a mean age of 76.1 years, with majority being female (11 /15, 73.3%). Malay ethnicity contributed to the majority of the admissions (11/15, 73.3%). Based on the Clinical Frailty Scale (CFS) they were CFS 3 (4/15, 26.7%) CFS 4 (4/15, 26.7%) and CFS 5 (2/15, 13.3%). More than half (8/15, 53.3%) had 3 or 4 co-morbidities. 73.3% (11/15) of them presented within the same day of the fall. 80% (12/15) were first time fallers. 6.7% (1/15) had a previous fragility fracture however there was no secondary prevention. 93.3% (14/15) presented with a neck of femur fracture while the remaining had Intertrochanteric fracture.

46.7% (7/15) of them were operated with a mean time of 6.4 days from admission to surgery. Their average length of stay of was 10.2 days. 28.6% (2/7) had surgery within 72 hours. Common reasons for conservative management were patient refusal due to long wait for surgery and the development of complications. 40% (6/15) had at least one complication (pressure sore, delirium, infection) with inpatient mortality at 13.3% (2/15) following fracture.

Majority received regional anaesthesia (85.7%, 6.7%) and the commonest surgery being bipolar hemiarthroplasty (5/7, 71.4%). Post operatively, only 28.6% (2/7) were mobilized with the remaining not mobilized either because of patient refusal or due to pain. All patients were on analgesia. Only 23.1% (3/13) of the patients had secondary prevention medications.

**Conclusion :**

Delay and complications in fragility fracture resulted in poor outcome. Orthogeriatric service will benefit inpatient fragility fracture care and osteoporosis management.

ID : 006

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**Title :**

Telegram for delivery of educational program -its acceptability among care providers of aged homes

**Background :**

Implementation of infection control and managing outbreaks of infection in aged care facilities are crucial to protect the life of vulnerable older residents who often have other co-morbidities. In view that many aged care facilities are not managed by healthcare professionals and the high turnover of staffing, a regular delivery of structured educational program on infection control is essential. Existing learning technology can be harnessed to promote wider outreach including taking the advantage of Telegram's multiple features and functions (e.g., no subscription fees, ensured security and privacy, large cloud storage, group videoconferencing, lower data consumptions).

**Aim :**

This paper presents perception of care providers on the acceptability of educational program via telegram platform and the researcher's experience is shared to give context to findings.

**Methodology :**

Study adapted the three domains of the Technology Acceptance Model (TAM) questionnaire designed to assess e-learning. The online survey was administered to sixty care providers (47 care workers; 13 nurses) who have completed an experimental study on using Telegram platform to deliver an educational program on COVID-19 infection control.

**Results :**

Acceptability of telegram was supported with all participants responded to the nine items of TAM with agree-to-strongly agree indicators. Albeit the favorable responses, < 28.5 % reported a "strongly agree" response to items related to perceived ease of use, while ≤ 25% on perceived usefulness. Strong positive attitudes towards the use of telegram-based educational program were < 18.5%. Experience taught researchers that target learners' characteristics (e.g., socio-demographics, work demand, technology readiness, learning style, learning needs) must be addressed for an effective program.

**Conclusion :**

The use of telegram platform to deliver educational program has a promising outcomes given to its many advantages including cost and sustainability. Qualitative inquiry is recommended to understand how target participants interact with the technology, especially among the lower education group and in low resource settings.



ID : 007

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**Title :**

The Relationship Between Fruits and Vegetable Intake and Cognitive Functions among Malaysian Adults

**Background :**

Cognitive functions are important for our daily functioning. Studies have identified fruits and vegetables (FnV) contain high micronutrients which serve as a protective factor against oxidative stress and slow the declination of cognitive deterioration.

**Aim :**

This study is aimed to investigate the relationship between FnV intake and cognitive performance among the Malaysian adults.

**Methodology :**

Food Frequency Questionnaire (FFQ) was used to measure FnV consumption which indicates the standard portion size for each sitting and the frequency of consumption. Three cognitive functions were designed using Psychopy software and uploaded to Pavlovia website: (1) Attention was measured by Sustained Attention Response Task, memory was measured by short-term memory and long-term memory recognition tasks, and executive functioning was measured by Hearts and Flower Task.

**Results :**

A total of 257 subjects participated (male = 86 (33.46%); female = 171 (66.54%)) with mean = 32.45, SD = 14.7 (age range from 19 to 74). The results of this study showed the average total daily FnV intake is 3.27 portion (SD = 2.10). The total cognitive functioning score were calculated by inverse efficiency score. Spearman's correlation result showed that there is a significant positive relationship between FnV intake and short-term memory,  $r_s(241) = 0.17$ ,  $p < 0.01$  and executive functioning,  $r_s(241) = 0.19$ ,  $p < 0.01$ . Specifically, there is significant positive relationship between fruits intake and short-term memory,  $r_s(241) = 0.223$ ,  $p < 0.01$ , long-term memory,  $r_s(241) = 0.174$ ,  $p < 0.01$  and executive functioning,  $r_s(241) = 0.163$ ,  $p < 0.01$ . Besides, there is only significant positive relationship between vegetable intake and executive functioning,  $r_s(241) = 0.151$ ,  $p = 0.02$ .

**Conclusion :**

In conclusion, the result of this study shows a positive relationship between FnV consumption and memory and with executive functioning. This result highlights the importance of fruits and vegetable intake to maintain cognitive function.

ID : 008

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**Title :**

The potential benefits of walnuts and peanuts in improving cognitive functions

**Background :**

Studies investigating nutrition and cognition have indicated that nutrition can play an important role particularly within older adult populations. Nuts are a rich source of nutrients that are known to be beneficial for cardiometabolic functions, blood pressure regulation, and glucoregulation. Furthermore, walnuts and peanuts specifically, are a rich source of Vitamin E, and are high in certain micronutrients such as magnesium, selenium, and polyphenolic compounds, which have been associated with delaying the onset of cognitive decline. Understanding age-related changes in cognition is important given our growing elderly population and the importance of cognition in maintaining functional independence.

**Aim :**

This study is aimed at exploring the association between walnut and peanut consumption, and cognitive functions.

**Methodology :**

Nut consumption was measured using the Food Frequency Questionnaire (FFQ). Three different domains of cognitive function were tested: attention, memory, and executive functions, using computerised cognitive testing. Attention was measured using the Sustained Attention to Response Task (SART) based on the go/ no-go paradigm, and executive functions were assessed using the Hearts and Flowers task. Memory was measured using immediate and delayed recognition of a series of word list. Inverse efficiency scores were calculated based on speed and accuracy of responses for each cognitive outcome measure.

**Results :**

Data from 226 participants: male = 62 (27.4%), female = 164 (72.6%), aged between 19- 74 (mean age= 28.5, SD= 12.4) were analysed. On average, participants consumed 3.2g/day of walnuts, and 1.6g/day of peanuts. The relationship between nut consumption and cognitive functions was calculated using Spearman correlations. Results indicate significant positive correlations between walnut consumption and short-term memory  $r = .13$ ,  $p = .044$ . Higher walnut consumption is also associated with better long-term memory  $r = .17$ ,  $p = .013$ . There are no significant correlations between walnut consumption and attention or executive function. Similarly, there is no correlation between peanut consumption and any of the cognitive measures.

**Conclusion :**

Overall, our findings provide some evidence for the role of walnuts as a beneficial dietary supplement for better short-term and long-term memory cognitive functions.

ID : 009

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**Title :**

Perceptions of Geriatric Patient Care among Clinical Healthcare Students at Universiti Teknologi MARA

**Background :**

The expanding population of geriatric individuals worldwide indicates the increasing needs and demands for healthcare services, justifying the importance of preparing healthcare practitioners for managing this patient cohort.

**Aim :**

This study was undertaken to investigate the perceptions of Universiti Teknologi MARA clinical healthcare students on managing geriatric patients.

**Methodology :**

A self-administered online survey, utilising a content- and face- validated questionnaire adopted from previous studies, was conducted on all final year medical (n=216, Response rate=80%), dental (n=86, Response rate=100%), pharmacy (n=166, Response rate=61%), physiotherapy (n=62, Response rate=73%), occupational therapy (n=75, Response rate=72%), nursing (n=48, Response rate=94%), medical lab technology (n=54, Response rate=98%), medical imaging (n=61, Response rate=87%), optometry (n=34, Response rate=82%) and nutrition/dietetics (n=35, Response rate=100%) students. Quantitative data was analysed via Chi-Square and Fischer's exact tests (significance value  $p < 0.01$ ).

**Results :**

The majority (53% to 98.1%,  $p = 0.01$ ) of clinical healthcare students in this institution reported to have been exposed to managing geriatric patients. Among those with exposure in managing geriatric patients, there was a significant difference in experience noted by students across the programs ( $p < 0.01$ ), although mostly noted positive ones (65.5% to 88.6%). For future practice, the majority of students across all programs felt comfortable in managing geriatric patients (64.2% to 88.9%). Nevertheless, the level of comfort significantly differs among students of the different programs ( $p < 0.01$ ). The percentage of students feeling comfortable in managing geriatric patients was significantly higher amongst those who have been exposed to this area of patient care (62.1%,  $p < 0.01$ ) and reported having previous positive experience in treating these individuals (66.4%,  $p < 0.01$ ).

**Conclusion :**

Educational exposure, especially ones that brought positive experience, is important for preparing clinical healthcare students with comfort in managing geriatric patients.

ID : O10

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**Title :**

The Relationship between Self-Stigma, Activities of Daily Living, and Communication Participation among Individuals with Parkinson's disease.

**Background :**

Past studies reported that self-stigmatization had negatively affected people with health issues include Individual with Parkinson's Disease (IwPD), which caused them to have low self-esteem and self-efficacy, avoid help-seeking behavior, and decrease social role and network ties .

**Aim :**

To explore the association of self-stigma, activities of daily living & instrumental activities of daily living, and communication participation among individuals with Parkinson's disease (IwPD).

**Methodology :**

Two studies were conducted. Study 1 involved 25 subjects (mean age= 64.60, SD=9.088, 15 males, 10 females) from the Malaysian Parkinson's Disease Association (MPDA) electronically filling in a 32-item questionnaire consisting of the Stigma Scale for Chronic Illness-8 Items (SSCI-8); the Communicative Participation Item Bank (CPIB); the Katz Index of Independence in Activities of Daily Living (Katz ADLs); and the Lawton Instrumental Activities of Daily Living Scale (Lawton IADLs). Responses were analyzed using descriptive statistics. In Study 2, semi-structured interviews were conducted with nine IwPD (mean age= 65.22, SD=8.028, 5 males, 4 females) who filled out the survey. Data were transcribed verbatim and analyzed using the thematic analysis method

**Results :**

Analysis from the surveys showed a strong negative correlation between self-stigma and activities of daily living ( $r=-.515$ ) and self-stigma and communication participation ( $r=-.468$ ) among IwPD. However, instrumental activities of daily living resulted in a weak negative correlation ( $r=-.311$ ) towards self-stigma. Five main themes and 18 subthemes emerged from the interviews: "alternative ways to perform ADLs," "strategies for communication breakdowns," "understanding the degenerative nature of disease," "the impact toward their social life" and "avoiding stigma."

**Conclusion :**

There was an association identified between self-stigma, activities of daily living, and communication participation among IwPD. Therefore, health care providers should address the factor of self-stigma in the overall management of IwPD. Moreover, action is needed to increase the public's exposure and education to PD in order to help reduce stigma.

ID : O11

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**Title :**

Calf Circumference Is Associated With Frailty Status Among Older People Attending The Geriatric Clinic At A Selected Hospital In Malaysia

**Background :**

Frailty is a major risk factor of hospitalization. However, assessing the frailty level is challenging especially when patients are acutely ill. Therefore, practical assessment may be recommended as a proxy for frailty screening

**Aim :**

This study aimed to evaluate whether calf circumference (CC) differ among different levels of frailty and whether CC categories are associated with frailty status among older people.

**Methodology :**

This cross-sectional study recruited 233 patients from the geriatric clinic at a selected government hospital in Malaysia (male=128, female=105), aged  $\geq 60$  years (mean =  $69.19 \pm 6.36$  years). CC was measured at the greatest bulk of the calf in sitting and categorized into 2 groups according to gender (Male:  $\geq 34$ cm vs  $< 34$ cm, Female:  $\geq 31$ cm vs  $< 31$ cm) using the AWGS 2019 cut-off. Frailty was categorized according to slow gait speed, weakness unintentional 5% weight loss for the past 1 year, increase energy expenditure and exertion into 3 groups namely, robust, prefrail and frail.

**Results :**

In females, 39 (37.1%) participants had CC below 31cm while 55 (43%) males had CC below 34cm. Robust, prefrail and frail status represented by 19 (18.1%), 24 (22.9%) and 62 (59%) in females, 21 (16.4%), 30 (23.4%) and 77 (60.2%) in males, respectively. There is a significant difference in mean CC among frailty status in females ( $\chi^2=29.86$ ,  $p<0.001$ ) and males ( $\chi^2=58.08$ ,  $p<0.001$ ). Crosstabs analysis revealed CC categories are associated with frailty status in females ( $p=0.001$ ) and males ( $p<0.000$ ).

**Conclusion :**

These findings suggest CC using the cut-off recommended by AWGS 2019 is associated with frailty status. Therefore, CC as a practical measure can be used for screening patients who may not be able to perform physical functional testing. However further study is needed to determine the cut-off for CC category specific for Malaysian population based on different ethnicities because of possibility in anthropometric variation.

ID : O12

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**Title :**

Association Between Pain Level And Disability In Elderly With Low Back Pain

**Background :**

Older people with low back pain (LBP) may have increase level of disability that affected their overall well-being. Beside aging process the pain sensation could be the reason for increase level of disability. However, limited studies have revealed which aspect of disability that may be influence by LBP.

**Aim :**

This study aimed to determine the influence of pain level on the different aspect on disability in elderly with LBP.

**Methodology :**

A cross-sectional study was conducted from January to April 2022 at the outpatient physiotherapy department, Kuala Lumpur Hospital. Participants diagnosed with LBP, aged  $\geq 60$  years and above were recruited from newly referred cases by the orthopaedic doctors. Pain level was assessed using Visual Analogue Scale (VAS). Level of disabilities was assessed using the 10 items Oswestry Disability Index (Pain Intensity, Personal Care, Lifting, Walking, Sitting, Standing, Sleeping, Sex life, Social life & Traveling). Linear regression analysis was conducted to determine whether pain level predict disability.

**Results :**

A total of eighty-two participants were recruited (Mean age =  $66.41 \pm 3.77$  years, Mean pain level =  $5.40 \pm 0.81$ , Mean disability index =  $19.52 \pm 7.31$ , Mean percent disability index =  $39.05 \pm 14.62$ ). The majority of the participants presented with moderate ( $n=45$ ) and severe ( $n=29$ ) level of disability score. While four participants were found in either minimal and crippled level of disability score. Pearson correlation analysis showed that pain level was significantly correlated with the Social life dimension of disability index ( $r=0.218$   $p=0.049$ ) and the total score of disability index ( $r=0.248$   $p=0.025$ ). The regression analysis showed that pain level significantly predict social life disability ( $R^2 = 0.048$ ,  $F(1, 80) = 3.994$ ,  $p = 0.049$ ). Pain level also significantly predict total disability index disability ( $R^2 = 0.062$ ,  $F(1, 80) = 5.250$ ,  $p = 0.025$ ). Pain level explained about 4.8% and 6.2% of the variances in social life disability and total disability.

**Conclusion :**

Pain level appear associated with social life disability and total disability in elderly with LBP. Majority of older people with LBP presented with moderate and severe levels of disability. Pain level appears to be associated with social life disability and total disability. This finding highlight the important pain management that may have the potential to reduce disability in older people with LBP.

ID : O14

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**Title :**

Affiliate Stigma and Psychological Well-being of Caregivers of Patient Living with Dementia

**Background :**

As dementia is a common, disabling, progressive neurological condition with major care burden, the assessment of caregiver's psychological well-being should be prioritized.

**Aim :**

This study examined the relationship between caregiver's affiliate stigma, behavioural and psychological symptoms of dementia (BPSD) and psychological well-being of caregivers of patient living with dementia.

**Methodology :**

Correlation cross-sectional study design was employed and caregivers were recruited from a clinic at a teaching hospital and a dementia care centre using consecutive sampling method. Affiliate Stigma Scale, Neuropsychiatric Inventory Questionnaire, and The Scale of Psychological Well-being were used in this study.

**Results :**

Of the 178 recruited caregivers, income and gender were significantly associated with affiliate stigma, while gender, caregiving duration, and dementia stage were significantly associated with psychological well-being. Affiliate stigma showed a significant negative relationship with psychological well-being. Irritability, aberrant motor behaviour, night time behavioural disturbance, and appetite disturbance showed significant relationship with psychological well-being. Affiliate Stigma was identified as the strongest predictor which explains 54.3% of the variance in psychological well-being.

**Conclusion :**

The negative association between affiliate stigma and psychological well-being reinforces the need for awareness programs at decreasing public stigma towards caregivers of patient with dementia.



ID : O15

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**Title :**

Feasibility of Synchronous Tele-Speech Therapy for Adult and Elderly with Communication Disorders: A Retrospective Study

**Background :**

Speech-language therapy services face complex challenges in providing equitable access to adult and elderly with communication disorders especially when face-to-face session are suspended due to the wide spread of COVID-19 viruses. The use of information technology (ICT) was utilized at Cheras Rehabilitasi Hospital (HRC) to enhance rehabilitation services during the challenging year of 2021. Despite TR-Speech had been repeatedly proven in previous research to be equally effective to improve functional communication abilities among person with acquired neurogenic language and motor speech disorder, the needs was not prominent before COVID era. Therefore, we took this approach very carefully as the traditional face-to-face session was suspended during the movement control order by the government by a careful planning, execution and evaluation to ensure the service are sustainable.

**Aim :**

This study retrospectively review our initial experience providing TR-Speech services to clients at a distance.

**Methodology :**

We reviewed available performance measures data reported by speech-language therapist from January to December 2021 at Speech Therapy Unit, HRC.

**Results :**

A total of 6 speech therapists were involved to deliver 311 TR-Speech sessions. 93% of the session were successfully delivered via teleconference platform and only 7% of the session were interrupted due to internet connection. Asynchronous TR-Speech were utilized to provide home-based program that can be accessed by patient during the downtime. Socio-demographic data of our patients and clinicians are documented and high satisfaction rates were reported using a 5 Likert-rating scale by both patients and clinicians. Compliance by clinician and patients are high and defaulter rate was low. Incomplete and missing data was excluded from the analysis which limits the study.

**Conclusion :**

Our early experience demonstrated that TR-Speech is feasible to be implemented at an intensive rehabilitation institution for adult and elderly with communication disorders without compromising clinical quality and provided with favorable outcome. Internet-based speech therapy using person-centered interventions provides a feasible model for delivering care helps to professionals who outnumbered by patient's ratios, reduce patient's traveling time, reduce financial burden, and reduce unnecessary exposure to COVID-19 aiming at maintaining the high frequency of therapy time for an optimum recovery and satisfaction.

ID : O16

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**Title :**

Anthropometric, Body Compositions and Functional Status among Older Women with different Types of Urinary Incontinence

**Background :**

Urinary incontinence (UI), which can be categorized into stress incontinence (SUI), urged incontinence (UUI) and mixed incontinence (MUI), is highly prevalent among older people that affected their quality of life. Little is known whether older people with different types of UI may present with different characteristics of anthropometric, body compositions and functional status.

**Aim :**

The study aimed to determine differences in the characteristics (age, severity of UI, anthropometric, body compositions, functional status) of older women according to different types of UI.

**Methodology :**

A cross-sectional study was conducted from March to May 2022 at the Geriatric Day Clinic, Kuala Lumpur Hospital. The participants aged  $\geq 60$  years and above were recruited from newly referred cases for management of UI according to types as diagnosed by a doctor. The International Consultation on Incontinence Questionnaire Urinary Incontinence Short-Form (ICIQ-UI-SF) was used to determine the severity of UI. Anthropometric (body mass index [BMI], waist circumference), body compositions (muscle and fat masses), and functional status (handgrip strength, gait speed) of participants were measured according to standard protocols. Mean differences of the characteristics between the different types of UI were tested using ANOVA with post-hoc analysis and ANCOVA (controlling for age).

**Results :**

Ninety-four patients were included in this study (Mean age =  $69.93 \pm 6.86$  years); UUI (39.4%) presented with the highest prevalence followed by SUI (30.9%). ANOVA analysis showed significant differences among the three types of UI for age ( $p = 0.046$ ) (SUI-UUI,  $p=0.018$ ), BMI ( $p = 0.024$ ) (SUI-MUI,  $p=0.032$ ; UUI-MUI,  $p=0.010$ ) and waist circumference ( $p = 0.001$ ) (SUI-MUI,  $p=0.005$ ; UUI-MUI,  $p<0.001$ ). After controlling for age effect using ANCOVA significant differences were found in waist circumference ( $p=0.001$ ), BMI ( $p=0.026$ ), and gait speed ( $p=0.042$ ).

**Conclusion :**

A higher proportion of older people presented with UUI. Body mass index and waist circumference may differentiate the different types of UI and also may impact functional status, namely gait function. The findings of this study may implicate practice in terms of weight management and functional intervention specific to different types of UI. However, further study is warranted to determine how these variables influence types and severity of UI.

ID : O17

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**Title :**

Drug Related Problems and Cost-Saving Description of Pharmacist Interventions among Hospitalized Elderly Patients

**Background :**

Pharmacists play a critical role in identifying drug-related problems (DRPs) and providing appropriate intervention in hospitalized patients. Data is still limited on the pharmacists' intervention (PI) and the financial impact of the intervention among elderly inpatients.

**Aim :**

To assess the DRPs, PI and describe the drug cost implication of the intervention among elderly patients.

**Methodology :**

A prospective single-center study was carried out in the Medical, Surgical, and Orthopaedic wards of a 413-bed government-funded hospital in Penang, Malaysia between May and June 2021. Pharmacist in the ward reviewed the patients' pharmacotherapy chart, identified DRP, and discussed verbally the intervention and recommendation with the prescriber. All the accepted interventions and the DRPs were documented in a data collection. Descriptive analysis was performed to determine the PI among elderly patients and the involved drug saving cost.

**Results :**

A total of 325 DRPs and PI conducted for 269 patients were documented; among which 186 (57.2%) were in 152 (56.5%) elderly patients. The most frequent DRPs underlying PI reported among the elderly patients were dosage adjustment in renal impairment (69,37.1%), discontinuation of drug therapy due to unnecessary use or polypharmacy (58,31.2%) and conversion of the drug from IV to oral form (18,9.2%). The total estimated drug cost-saving from these PI for the two months period was RM 5,203.05 (USD 1248.70).

**Conclusion :**

The study results showed that PI and recommendation have substantially reduced the inappropriate drug therapy and unnecessary medication use among hospitalized geriatric patients. In addition, PI notably contributed to saving drug-related costs.

ID : O18

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**Title :**

Development of a Reusable Learning Object on Nutrition in Older Persons for Health Sciences Learners

**Background :**

There is a need for wide reaching education resources in care of older persons with an ageing global population. A reusable learning object (RLO) is an open access, interactive, concise and multimedia web-based resource with a single learning objective that can be used in varied contexts.

**Aim :**

We describe the development and evaluation of a RLO on factors affecting nutrition in older persons.

**Methodology :**

The RLO was co-created with end-users following the ASPIRE framework. Four undergraduate medical students participated in the "storyboarding process" where they outlined the content format they would prefer in this RLO. Subsequently, two content experts, a consultant geriatrician and senior dietitian wrote a case study and material for the RLO. Technologists developed the RLO following required specifications. A patient and doctor were recruited as actors in the case study video. Three external peer reviewers (consultant geriatrician, senior dietitian and information technology expert) reviewed the RLO and modifications were made. The finalised RLO was released online and incorporated evaluation questionnaires pre- and post- the main content. All users were invited to answer the optional questionnaires.

**Results :**

The RLO is available at <https://acord.my/RLOs/nutrition-old/>. It comprises seven sections including the case study video, reflection on the case, interactive material requiring scrolling, flipping cards and hovering the cursor over different sections of an older person's anatomy. A learner will take 12 to 15 minutes to complete the RLO.

To date, a total of 343 users from 8 countries had used the RLO. The feedback was the RLO was fun and interactive, easy to understand and simple. Fifty users answered the questionnaire and all (100%) rated the RLO as helpful or very helpful and would recommend it to others. The mean knowledge score improved from 1.29 (pre) to 1.54 (post) although not statistically significant, while the mean confidence score in the topic significantly improved from 2.57 to 3.34 ( $p < 0.001$ ).

**Conclusion :**

This illustrates a novel method of developing learning materials for older persons related topics with promising effects on knowledge and confidence. RLOs can be a valuable resource developed by experts to reach varied learners in different health science courses.

ID : O19

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**Title :**

Hypovitaminosis D Among Fragility Hip Fracture Patients

**Background :**

Vitamin D deficiency is a cause of secondary osteoporosis.

**Aim :**

To date, there is no study assessing the burden of hypovitaminosis D among geriatric patients admitted with hip fractures in Malaysia.

**Methodology :**

A retrospective cross-sectional study was conducted involving 178 subjects recruited from 1 May 2021 to 23 May 2022. All subjects aged  $\geq 60$  years admitted in the Orthopaedic ward with fragility hip (intertrochanteric / neck of femur) fractures were included. Subjects' demographic data, clinical data, and laboratory parameters were collected. Vitamin D deficiency was defined as a serum 25(OH)D  $< 30$  nmol/L while insufficiency was defined as 30-50 nmol/L. Data were analysed using SPSS version 26. A value of  $P < 0.05$  was considered statistically significant.

**Results :**

The mean age of the subjects was  $77.4 \pm 7.99$  years. The majority were female (66.3%,  $N=118$ ). The mean vitamin D level was  $47.6 \pm 26.9$  nmol/L. Vitamin D levels were available for 117 patients (65.7%), out of which 25.6% (30 patients) had Vitamin D deficiency, while 39.3% (46 patients) had Vitamin D insufficiency. Female gender (COR 6.18, 95% CI 2.59-14.74,  $p < 0.001$ ) and Malay ethnicity (COR 5.57, 95% CI 2.42-12.80,  $p < 0.001$ ) were significantly associated with hypovitaminosis D (vitamin D insufficiency + deficiency). Patients with hypovitaminosis D had a significantly lower EGFR (CKD-EPI) ( $71.68 \pm 23.10$  vs  $62.17 \pm 23.80$ , 95% CI mean difference 0.41-18.60,  $p = 0.041$ ). No statistically significant difference were found when comparing vitamin D levels by age ( $p = 0.188$ ), length of stay ( $p = 0.204$ ), creatinine ( $p = 0.353$ ), corrected serum calcium ( $p = 0.987$ ), albumin ( $p = 0.429$ ), TSH ( $p = 0.839$ ) and My4AT score ( $p = 0.142$ ). On multivariate analysis, female gender ( $p < 0.001$ ; AOR 5.8, 95%CI 2.21-15.2) and ethnicity ( $p = 0.007$ ) were independent predictors of hypovitaminosis D. Malay patients had 4.9 times higher odds of hypovitaminosis D versus Chinese patients ( $p = 0.02$ , AOR 95%CI 1.79-13.5), while no significant differences were found between Malay patients and Indian patients ( $p = 0.1$ ). One limitation of this study was that it was a retrospective study, and had to contend with missing data.

**Conclusion :**

Hypovitaminosis D is prevalent among the elderly with fragility hip fractures in Malaysia, especially among older females of Malay ethnicity. There might be a role for vitamin D supplementation in elderly patients with fragility hip fractures.

ID : O20

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**Title :**

Preliminary Analysis of Multi-Centre Validation of Pain Assessment in Advanced Dementia (PAINAD) in Malaysia

**Background :**

Pain has detrimental effects on the wellbeing of older adults. It could precipitate delirium, cause instability, immobility and may disrupt the physiological functions of frail older persons. Detection of pain in persons with advanced dementia is challenging due to their inability to express verbally. PAINAD is a pain assessment tool developed based on non-verbal expressions of pain for persons with severe dementia. PAINAD has not been validated in Malaysia.

**Aim :**

This study aims to validate the use of PAINAD in pain assessment for persons with severe dementia in Malaysia.

**Methodology :**

This is an ongoing prospective observational study initiated since 27th April 2022 with ethical approval from MREC and involves 10 public hospitals in Malaysia. We aim to recruit 100 subjects. Persons with severe dementia admitted to the geriatric or general medical wards were recruited for pain assessment regardless of their pain status upon admission. PAINAD scale was the index test, Discomfort Scale-Dementia of the Alzheimer Type (DS-DAT) and Nurse Reported Pain Scale (NRPS) were the reference tests for concurrent validity assessment. Training of pain scales administration was conducted for investigators of all study sites to ensure standardization. Pain assessment for study subjects was done by 2 raters concurrently at rest and during activity. PAINAD was completed by the first rater while DS-DAT and NRPS were assessed by the second rater. They were blinded to each other to prevent bias. Demographic data was collected. Concurrent validity of PAINAD with DS-DAT and NRPS was analyzed by using SPSS version 27.

**Results :**

As of 31st May 2022, a total of 16 patients were recruited for the study. The mean age was 77.5 years with 81.3% females, mean duration of illness of 4.5 years and 50% of them had Alzheimer disease. At rest, PAINAD correlated positively with both DS-DAT (0.862,  $p < 0.001$ ) and NRPS (0.859,  $p < 0.001$ ). Similar positive correlation was noted for pain assessment during activity: DS-DAT (0.831,  $p < 0.001$ ) and NRPS (0.715,  $p < 0.05$ ).

**Conclusion :**

PAINAD showed good positive correlation with DS-DAT and NRPS for pain assessment in persons with severe dementia at rest and during activity.

ID : O22

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**Title :**

The Development and Validation of My Leisure Program for Geriatric (MYLP-G) to Improve Patients Quality-of-Life

**Background :**

Leisure involvement in later life is also an important and beneficial element for better quality of life (QOL). There is currently a shortage of research on leisure program development specific for geriatric and its effectiveness to the quality-of-life improvement among geriatric in Malaysia. Besides, participation in leisure is one of eight primary domains in the Occupational Therapy (OT) practice framework. It is crucial to address leisure satisfaction as it will help improve QOL of the elderly.

**Aim :**

To develop and validate a leisure program to improve the QOL among geriatric patients in OT Unit, Hospital Taiping.

**Methodology :**

This study was piloted with patients above 60 years that were referred to OT from 1 January 2022 to 1 June 2022. Patients with Modified Barthel Index >75 and good family support were included. Patients with behavioral and psychological symptoms of dementia, or defaulted OT for more than 1 month, or institutionalized elderly were excluded. Subjects recruited were given an intervention programmed for 6 sessions over 3 months duration. Programs include education, physical, table top, musical, and recreational activities. All subjects completed pre-test and post-test questionnaires of the WHOQOL-BREF to assess QOL, and the LSS (Leisure Satisfaction Scale) to study their leisure satisfaction. Paired T test was used to compare pre-test and post-test mean scores. A P-value of <0.05 was considered as statistically significant

**Results :**

10 patients (5 men and 5 women,  $70.5 \pm 6.9$  years old) were recruited. Significant differences were found between all four different domain ratings after the introduction of MYLP-G. Subjects' psychological scores significantly improved from pre-test score of  $12.8 \pm 3.9$  to post-test score of  $22.5 \pm 1.8$  (95% CI Mean difference 6.7-12.7,  $p < 0.001$ ). Physical health significantly improved from pre-test score of  $11.4 \pm 3.1$  to post-test score  $22.4 \pm 2.3$  (95%CI 9.1-12.9,  $p < 0.001$ ). Social pre-test significantly improved from score of  $6.9 \pm 1.9$  to post-test score  $9.5 \pm 2.1$  (95%CI 0.7-4.5,  $p = 0.011$ ). Environmental pre-test significantly improved from score of  $21.5 \pm 3.2$  to post-test score  $33.2 \pm 2.3$  (95%CI 8.6-14.8,  $p < 0.001$ ). LSS significantly improved from pre-test score of  $45.4 \pm 17.0$  to post-test score  $110.5 \pm 13.8$  (95%CI 53.2-77.0,  $p < 0.001$ )

**Conclusion :**

MYLP-G will serve as a useful program to improve geriatric QOL



ID : O23

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**Title :**

Delirium in Severe COVID-19 Infection : A Cross-Sectional Study

**Background :**

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**Aim :**

Delirium has been identified as a complication of COVID-19 infection. However, there are limited reports on delirium in severe COVID-19 infection in Malaysia. This study aims to assess prevalence, risk factors and mortality of delirium among severe COVID-19 patients.

**Methodology :**

Patients with severe COVID-19 infection who were transferred out of ICU or general medical wards to the subacute geriatric ward Kuala Lumpur Hospital from 1st January 2021 to 31st December 2021 were included. Severe COVID-19 infection was defined as COVID-19 infection Clinical Category 4 or 5. Delirium was assessed by Confusion Assessment Method (CAM) score. Patients' characteristics, acute events, complications and mortality were investigated for their association with delirium.

**Results :**

282 patients were included with a mean age of 60.3 (SD 15.3) and 187 (48.7%) were females. 59 patients (20.9%) had delirium. Baseline characteristics commonly associated with delirium are nursing home resident (83.3%), cognitive impairment (44.1%) and falls (37.3%). 25% of patients who had acute events in ward developed delirium in contrast to 32% patients with complications. Mortality rate was significantly higher among all patients with delirium. Logistic regression revealed pressure injury increased risk of delirium significantly (OR 8.831,  $p < 0.001$ ), followed by pre-existing cognitive impairment (OR 6.029,  $p = 0.015$ ), hospital acquired pneumonia (OR 5.902,  $p = 0.007$ ), pre-existing falls (OR 5.345,  $p = 0.012$ ) and age (OR 1.057,  $p = 0.032$ )

**Conclusion :**

Our study shows that delirium in severe COVID-19 is multifactorial and is associated with increased risk of mortality.

ID : O24

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**Title :**

Mobile application development for health management of the elderly

**Background :**

As age progresses, it is inevitable that the physical strength and mental stability deteriorate, especially when people reached a certain age. It also brings about more medical appointments, medication and health issues. These processes involve lots of routines and tasks. In most cases, all these processes are recorded manually in the conventional approach. In a normal scenario, they will need to seek help from their children, relatives and close friends. Due to various reasons, children or family members of the elderly may not always be available to take care of the elderly all the time and may need to take turns shouldering the responsibility. While taking turns, one might miss important information and update on the health status. Hence, it would be beneficial if there is a systematic way or a common platform for the health management system to overcome this issue. A mobile application would be one of the solutions. In order to develop a mobile application, one should understand the underlying condition and the important features that need to be embedded in the app.

**Aim :**

The aims of this work are:

1. To identify the important features of the proposed mobile application.
2. To design a mobile application that can provide assistance in elderly health management.
3. To minimize the occurrence of human-induced errors that can put the elderly's life and health at risk

**Methodology :**

An online survey was conducted to understand better the health management issues in the elderly. The goal of this survey is to identify the healthcare-related problems encountered by the respondents while taking care of or caring for the elderly. Besides, this survey aims to gather respondents' feedback, opinions, and suggestions so that we can come out with products and services that are beneficial to the community. The main objective of this survey is to identify important features of mobile apps. Based on the feedback analysis, a healthcare application (app) is needed so that it can help users to organize their health details systematically. Important features of the mobile application are identified and further embedded into the design. The next stage involves the development of a healthcare app by using Android Studio and Firebase.

**Results :**

A mobile health care app called Smart Elderly Care App (SECA) is successfully developed in this project. It comprises five important features in the app, which are medical appointments, medication, daily health data, health summary, and elderly profile. Specifically, all these features can be accessed through the app in order to assist in elderly health management which could ease multiple account users. This app can also store important health information in an online database. Therefore, users can access their health details anytime at anywhere through their electronic devices, such as phones, tablets, computers and many more. Additionally, the online database is safe, robust, and stable. The specifications are set as follows:

- Simple and easy to use
- Contains essential healthcare features

- Contains safe, robust, and stable online database
- Low cost of development, utilization, and maintenance

**Conclusion :**

The development of this software has the potential to be widely used in elderly care facilities and healthcare facilities. The elderly who are staying with their caretakers or family members can also utilize this application as their healthcare assistant. Relatives of the elderly will be able to monitor their health condition as well as get updates on medication and appointments of elderly even from afar.

ID : O25

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**Title :**

Development of Smart Elderly Care Apps (SECA)

**Background :**

Elderly care management has great potential to be further developed and shaped with smart healthcare solutions. In general, elderly care is defined as a service that serves the needs and requirements of senior citizens. As age progresses, the physical strength, health condition and mental stability deteriorate, especially when people reach a certain age. It also brings about more medical appointments, medication and health issues. In most cases, elderly care comes with several issues that involve the elderly, primary caregivers, carers, and family members. For the elderly, it is not easy to have a proper management of medical appointments, medications and their health status. Hence, it would be difficult for them to inform their primary caregivers about their health updates. For carers, they find it difficult to keep track of the health summary of the elderly. In most cases, the family members may be taking turns and carry the responsibility to take their parents to medical appointments and check-ups. It is quite a challenging task to keep up with the health status, medication details and any arising issues if care needs to be coordinated with more than one person/carers. Normally, this is due to the disadvantages of manual record-keeping from previous treatment or medical appointments. This project proposes a smart health management system called Smart Elderly Care App (SECA). The main objective of this project is to develop apps to facilitate health management issues. In general, SECA has five main features that can solve the issues faced in elderly care. Specifically, they refer to medical appointments, medication, daily health data, health summaries, and elderly profiles. By having these features, users can shape elderly care with innovative healthcare solutions to help the elderly people and their carers in health management.

**Aim :**

1. To develop Smart Elderly Care App (SECA) that can provide assistance in elderly health management.
2. To minimize the occurrence of human-induced errors that can put elderly's life at risk.
3. To implement Smart Elderly Care App (SECA) in elderly care facilities.

**Methodology :**

An online survey was conducted and completed to identify important features of mobile apps. Based on the feedback analysis, a healthcare application (app) is needed so that it can help users to organize their health details systematically. Important features of the mobile application are identified and further embedded into the design. The development of a healthcare app by using Android Studio and Firebase. SECA is a fully software-based project. Hence, there is no hardware implementation for SECA project. MIT App Inventor 2 (MIT AI2) is chosen as software development tool. It utilizes block coding or blocks-based tool for its programming language.

**Results :**

SECA project successfully serves five main features, which are medical appointment, medication record, health summary, daily data, and elderly profile.

**Conclusion :**

SECA can contribute its smart healthcare solutions for elderly care in elderly care facilities.

ID : O26

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**Title :**

Sex-Specific Seven-Year Mortality Is Associated with Adiposity: Findings from the MELoR Study

**Background :**

The obesity paradox suggests adiposity improves survival in older and diseased population. Few studies have yet looking at sex differences and the role of muscle in the relationship.

**Aim :**

To evaluate the sex-specific mortality rates associated with available adiposity indices in individuals aged  $\geq 55$  years and their relation with low muscle strength.

**Methodology :**

A prospective cohort study utilizing data from the Malaysian Elders Longitudinal Research (MELoR) study recruited from 2013 to 2015 from Klang Valley. Anthropometric measurements and body composition were obtained at baseline while vital status was obtained up to December 2020. Adiposity was determined using the body mass index (BMI), percentage body fat (% BF), waist-to-hip ratio (WHR), and waist circumference (WC), while were categorized into quartiles. Cox's proportional hazards analyses were conducted stratified by gender and muscle strength with adjustments for age, education and comorbidities.

**Results :**

Data were available for 1358 participants, age (mean $\pm$ SD) = 68.45 $\pm$ 7.21 years and 55.1% women. 150 (11.1%) deaths were recorded with 106 (70.7%) had poor muscle strength at baseline. For men: the increased mortality with %BF in Q3 and Q4 compared to Q1, was confounded by heart disease (HR (95% CI) = 2.58 (1.02-6.54)) and diabetes (HR (95% CI) = 2.64 (1.02-6.83)) respectively. Mortality was also increased with underweight BMI and poor muscle strength (HR (95% CI) = 4.97 (1.92-12.88)). For women: lower mortality were observed with %BF in Q4 (HR (95% CI) = 0.42 (0.18-0.94)) adjusted for age, education and heart disease compared to Q1, while the increased mortality with WHR in Q4 (HR(95%CI) = 2.19 (1.03-4.66)) was confounded by age.

**Conclusion :**

Sex-differences exist in the relationship between %BF, BMI and WHR with mortality. Increased %BF was associated with increased mortality in men but reduced mortality in women, while if muscle strength is reduced, being underweight is associated with increased mortality. This suggests the importance of taking into account gender differences and the presence of reduced muscle strength when managing obesity in older adults.

ID : O27

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**Title :**

A Retrospective Study on the risk factors of falls among elderly in Primary Care Fall's Clinic

**Background :**

Falls are common among elderly which leads to major morbidity and mortality. Approximately 28-35% of elderly fall in a year with increasing incidents seen. This study aims to ascertain the factors associated with falls among the elderly patients attending fall clinics in primary care. It would help primary care physicians (PCP) to identify factors associated with falls.

**Aim :**

This study aimed to look at socio-demographic profile of patients presenting to fall clinic in primary care and their associated factors.

**Methodology :**

A cross-sectional study conducted from February 2021 to May 2022. Community dwelling adults above 60 years old with history of fall within a year were recruited into the fall clinic. Socio-demographic variables, co-morbidities, frequency of falls, assessments of postural blood pressure, polypharmacy, MMSE, SARC-F questionnaire, Barthel Index and Lawton were obtained.

**Results :**

The mean age were 71 years old and 78% of the patients were females with BMI above 27.5 (32.8%). Malay was the predominant ethnicity (46%). 30% of the patients had  $\geq 2$  falls and 13% had postural hypotension. Majority of the patients had polypharmacy (61%). 52% have a risk of falling at home. 38% had Sarc-F score above 4. Patients with abnormal TUG of  $<13$  were 48%, and GDS score  $>5$  was seen in 18% of them. Abnormal FES of  $<7$  was found in 62% of the patients and 79% of the patients had a normal MMSE score.

The most common comorbidities were DM, HPT, CVA and Osteoporosis. Majority of the patients were IADL independent. There were significant association between frequent fallers with inappropriate walking aid usage ( $p=0.010$ ), vision problem ( $p=0.037$ ), CVA( $p=0.001$ ), inappropriate foot wear ( $p=0.006$ ) and sarcopenia ( $p=0.008$ )

**Conclusion :**

Screening for falls in primary care are important. Identifying fall risk factors in elderly and early intervention may prevent from subsequent falls. Therefore, in our study identified the significant risk factors in frequent fallers could help the PCP to screen these patients early to reduce fall risks.

ID : O28

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**Title :**

Factors Associated with Falls Among the Elderly Attending Outpatient Clinic in Hospital Kuala Lumpur

**Background :**

Falls are known to be multifactorial and may lead to multiple complications, especially among elderly.

**Aim :**

This study aims to identify the factors associated with falls among the elderly patients attending outpatient clinic in Hospital Kuala Lumpur.

**Methodology :**

This was a retrospective, cross sectional, record review study using systematic sampling method of every 4th patient in the randomized list. Data collection was performed from November 2019 until November 2021 using a designated data collection form. All patients of 60 years and above who attended Geriatric and Internal Medicine outpatient clinic service in HKL were included in the study. Those who were discharged from the clinic, incomplete data or untraceable records or attended less than three appointments were excluded from the study recruitment. A sample size calculation of 260 patients were estimated to achieve a power of 80% with 95% confidence interval (CI). Demographic data were analysed and presented descriptively, while clinical factors associated with falls were assessed using multiple logistic regression in RStudio version 2022.02.0. P-value less than 0.05 was considered as significant.

**Results :**

Out of 354 patients screened, 283 were recruited in the study. The elderly patients had a mean  $\pm$  standard deviation (SD) age of  $77.3 \pm 7.5$  years old with 58% of them were female and 41.3% of them had falls history. Presence of polypharmacy contributed to 92% of recruited subjects, and 37% of them has excessive polypharmacy. Majority of the patients had multicomorbidities more than 4 with at least 3 number of follow ups and  $8.8 \pm 3.7$  number of medications. Significant associations were found between number of comorbidities (OR: 1.1, CI: 1.0-1.3), presence of adverse drug event (OR: 3.9, CI: 2.3-6.5) and anticholinergic burden (OR: 1.8, CI: 1.2-4.4) with presence of falls.

**Conclusion :**

Factors found to be associated with falls, especially the modifiable risk such as adverse drug events and use of drugs with high anticholinergic burden should be the primary intervention targets to help those who are at a heightened risk for falling to reduce the negative impacts of falls.



ID : O29

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**Title :**

Performance of SARC-F Questionnaire for Screening of Probable Sarcopenia in Sabah: A Cross-Sectional Study

**Background :**

Sarcopenia is an emerging geriatric syndrome which often leads to various complications. Due to its potential reversibility, prompt screening and diagnosis is pivotal. SARC-F is recommended as a sarcopenia screening tool comprising of five assessment items: strength, assistance walking, rising from a chair, climbing stairs, and falls.

**Aim :**

To study the performance of SARC-F as a screening tool and to identify the risk factors that predispose to sarcopenia.

**Methodology :**

Patients aged  $\geq 65$  were recruited to answer SARC-F questionnaire in both geriatric and general medical clinic from 17th May 2022 to 15th June 2022. All participants were assessed for grip strength. Demographic, clinical characteristics, clinical frailty scale (CFS), and physical activities were analyzed. Probable sarcopenia is defined as low muscle strength (measured by handgrip strength) of  $< 28\text{kg}$  for male and  $< 18\text{kg}$  for female based on Asia Working Group of Sarcopenia (AWGS) criteria.

**Results :**

61 patients (31 female, mean age 75.7, SD 7.3) were studied with mean weight 61.5kg. 38 (62.3%) patients had probable sarcopenia, 15 of them fulfilled SARC-F criteria for clinical suspicion of sarcopenia. The prevalence of probable sarcopenia in geriatric and general medical clinic was 72.7% and 56.4% respectively. The sensitivity of SARC-F in our study was 39.5%, specificity was 100%. Among elderly with probable sarcopenia, 25 (65.8%) patients aged between 65-80. 33 (86.8%) patients are non-smoker. 34 (89.5%) of them have very light to light physical activity. Majority has completed primary to secondary school education. 26 (68.4%) patients have CFS  $\geq 5$ . 34 patients (89.5%) have  $\geq 2$  non communicable diseases.

**Conclusion :**

Our results showed poor screening sensitivity but excellent specificity of SARC-F. At present this self-reported questionnaire can be used to identify elderly at risk of sarcopenia in clinic setting. Probable sarcopenia is common among elderly in both geriatric and general medical clinic, especially those with high CFS and low physical activity. Early intervention is essential to improve their physical function and quality of life.

ID : O30

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**Title :**

Planning of Protocolised Multidisciplinary Acute hip fracture care without geriatrician in Sandakan, Sabah

**Background :**

Orthogeriatric care has been proven to improve outcomes in acute hip fracture care in the elderly. However, such tertiary subspecialist services are not present in all major hospitals in Sabah, Malaysia.

**Aim :**

This study aims to outline the service planning of a protocolised multidisciplinary acute hip fracture care without geriatric medicine services in Hospital Duchess of Kent, Sandakan.

**Methodology :**

A joint meeting led by orthopaedic surgeon and visiting geriatrician involving anaesthetist, rehab physician discussed and drafted a initial model of care, which is then edited and finalised by the geriatrician and orthopaedic surgeon. This model of care illustrates a protocolised care pathway which covers 3 pillars of orthogeriatric care, i.e., acute perioperative care, post-op rehabilitation and secondary prevention.

**Results :**

We identified main stakeholders in this service, i.e., Orthopaedics, Anesthesiology, Rehabilitation, Emergency Department, Internal Medicine. The acute hip fracture pathway is divided into 3 phases mainly: emergency department, preoperative and postoperative. In emergency department, we aim to admit patients to orthopaedic ward within 4 hours. In preoperative phase, referral to internal medicine will be made if patients are deemed to have acute medical conditions which need stabilisation, expected to be about 25% of all patients based on current literatures. Surgery within 72 hours has been targeted as one key performance index. An orthogeriatric checklist including a simple hip fracture proforma and fall risk factor check list are to be filled up by attending doctors in the ward. Post operatively, early mobilisation and bone health treatment are mandatory with rehab physician involved in rehabilitation and discharge planning. Patient with complex health issues or geriatric syndromes will be referred to geriatric visiting clinic.

**Conclusion :**

Orthogeriatric care can still be implemented in hospitals without geriatric medicine services. Geriatrician can help with hip fracture care remotely by organization, education and support.

ID : O31

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**Title :**

Prevalence and Pattern of Use of Medications with Anticholinergic Effects in Malaysian Elders Longitudinal Research (MELoR) Study

**Background :**

Numerous prescribed medications have a variable degree of anticholinergic effects which are now linked to long term increased risk of stroke, dementia and mortality.

**Aim :**

The aim of this study was to determine the prevalence and pattern of use of medications with anticholinergic effect in the Malaysian Elders Longitudinal Research (MELoR) study.

**Methodology :**

The study population comprised individuals aged 55 years and over recruited through simple stratified electoral role sampling from the parliamentary constituencies surrounding the University of Malaya Medical Centre, Kuala Lumpur. Medications used were identified during home-based computer-assisted interviews during which researchers inspected packaging and prescriptions which were transcribed verbatim into the database and cross-checked by a trained pharmacist. Anticholinergic exposure was determined using the anticholinergic cognitive burden (ACB) scale.

**Results :**

Of 1,705 individuals, mean age (SD)= 68.94 (7.54) years and 53.8% women, were recruited. Data on ACB drug classification were obtainable for 1600 individuals. 908 (56.8%) were not on any ACB drugs, 575 (35.9%) had a total ACB score of one to two, while 117 (7.3%) had a total ACB score of three or greater. The main use of anticholinergic medications represented those with mild anticholinergic properties for the indications of cardiovascular diseases, including atenolol (n=115, 7.2%), metoprolol (n=50, 3.1%) and nifedipine (n=20, 1.3%). 40 (2.5%) individuals used medications with high anticholinergic cognitive burden, including amitriptyline.

**Conclusion :**

Nearly one in two individuals aged 55 years and over in our study consumed at least one medication with anticholinergic property. Future studies should determine the potential adverse effects associated with anticholinergic exposure in our population.

ID : O32

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**Title :**

Psychological Status Among Older Adults during the COVID-19 Pandemic

**Background :**

The coronavirus disease (COVID-19) pandemic resulted in enforcement of strict restrictive measures among the vulnerable older adult population. Yet, data on the impact of the COVID-19 pandemic on psychological status among said population remains limited.

**Aim :**

The aim of this study was to determine the levels of depression, anxiety and stress among older adults during the COVID-19 pandemic.

**Methodology :**

Participants aged above 60 years were interviewed virtually from three ageing cohorts as part of the Transforming Cognitive Frailty into Later-Life Self-Sufficiency (AGELESS) study from October 2020 to the present. The 15-item Geriatric Depression Scale (GDS-15), 7-item anxiety subscale from the 21-item Depression, Anxiety and Stress Scale (DASS-Anxiety) and 4-item Perceived Stress Scale (PSS-4) were then virtually administered to determine depression, anxiety and stress, respectively. Established cut-offs were used to categorize depression, anxiety and stress. Demographic and regression analyses were conducted via SPSS.

**Results :**

Data from 1286 participants aged (mean (SD)) = 76.03 (13.3) years, 56.9% female were included. 1082 (84.9%) had no depressive symptoms, 144 (11.3%) mild, 35 (2.7%) moderate and 14 (1.1%) severe symptoms of depression. Significant differences in age, marital status, presence of new medical problems, physical activity, cholesterol, diabetes, joint problems, chronic kidney disease and gout were seen across these categories. 1208 (93.9%) had no, 37 (2.9%) mild, 28 (2.2%) moderate and 13 (1%) severe anxiety. Cataract, gout, thyroid, gastric, presence of new medical problems and physical activity differed across these categories. 712 (55.4%) had low stress while 574 (44.6%) had high levels of stress. Significant differences in age, gender, marital status, educational category, gout, presence of new medical problems and physical activity were observed across both stress categories.

**Conclusion :**

Our older population reported a high level of stress during the COVID-19 pandemic. Depression was higher than NHMS 2018 levels of 11% at 15%. The physical activity, presence of new medical problems and gout were common factors associated with differences in anxiety, stress and depression levels in our older populations, suggesting that psychological status in our older population was influenced by challenges in accessing healthcare and changes to physical activity during the COVID-19 pandemic.

ID : O33

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**Title :**

Flushings Syndrome associated with Vancomycin Administration in Elderly Woman

**Background :**

Vancomycin flushing syndrome (VFS) is an anaphylactoid reaction caused by rapid infusion of vancomycin, characterized by pruritus, red rash on the face, neck, and upper torso, which can also affect the extremities although rarely. The symptoms include weakness, angioedema and chest and back pain. This occurs in 4-50% of patients treated with vancomycin. Patients under 40 years old have a higher risk to have severe reaction. Doctors should be aware of these drug reactions, their prevention, and treatment.

**Aim :**

to report a case of flushing syndrome in an elderly woman associated with intravenous vancomycin

**Methodology :**

A 62-year-old woman with left septic arthritis genu caused by MRSA received vancomycin 1 gram BID, paracetamol 1000 mg TID, and ibuprofen 400 mg TID. The Prevalence of septic arthritis caused by MRSA was 17 % in elderly. After 15 days of treatment, she still felt fever and then felt itching on the neck area, then spread to the whole body and has a rash starting from the face, neck, and body and extending to the hands and feet. After that, she received a ranitidine injection BID, oral methylprednisolone 8 mg BID, cetirizine 10 mg OD, and vancomycin was given in slow infusion (in 2 to 3 hours) for 2 days, but symptoms were not getting better.

**Results :**

After vancomycin was discontinued for 3 days, the symptoms was disappeared. VFS is caused by vancomycin through the direct and non-immune-mediated release of histamine from mast cells and basophils. The amount of histamine release is generally related to the dose of vancomycin infused and the rate of infusion. It is generally associated with more rapid infusion rates but can be seen following slower infusion rates and after several days of transfusion. Symptoms may appear 4-10 minutes or more than 7 days after vancomycin administration

**Conclusion :**

The complaints of itching, fever and redness in this patient could be related to the administration of intravenous vancomycin.

ID : O34

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**Title :**

Association between diabetes duration with risk of mortality in the Malaysian Elders Longitudinal Research (MELoR) Study

**Background :**

Diabetes is one of the most common chronic diseases in most countries and it is one of the leading causes of mortality. The World Health Organization (WHO) has stated that between 2000 and 2016, there has been 5% increase in premature mortality from diabetes.

**Aim :**

We analyzed data from the Malaysian Elders Longitudinal Research (MELoR) study to determine whether duration of diabetes and age at recruitment influenced the risk of mortality in this population.

**Methodology :**

The MELoR study recruited individuals aged 55 years and older residing within the Klang Valley from 2013 to 2015 using electoral roll sampling stratified by age deciles and ethnicity. The presence of diabetes was defined as self-reported physician diagnosed diabetes. Mortality was determined up to December 2020 from the National Death Registry.

**Results :**

Data on diabetes status and mortality were available for 1588 participants. Mean age of 70 years, 66.2% women. 438 (27.6%) were reported a diagnosis of diabetes over a year before recruitment. 53 (3.3%) less than one year and 1097 (67.1%) had no history of diabetes. Deaths occurred in 91 (20.8%), 8 (15.1%), 112 (10.2%) for self-reported diabetes diagnosed > 1 year, < 1 year ago and no diabetes respectively ( $p < 0.05$ ). Cox proportional hazards analysis revealed no significant increase in death with self-reported diabetes in individuals aged <65 years ( $HR[95\%CI]=1.783[0.823-3.864]$ ) or aged  $\geq 75$  years ( $1.355[0.896 \text{ to } 2.049]$ ), while significant increased mortality was observed for those in the 65-75 year age groups ( $2.652[1.755-4.009]$ ).

**Conclusion :**

Mortality is increased higher in those who have had diabetes for over a year and in those with diabetes in those in the 65-75 year age group, with no increase in mortality observed in those aged 55-65 years or over 75 years at recruitment. Our findings confirm that of recent studies which have identified that diabetes is not associated with increased mortality in the oldest old population, which challenges the relevance of current management guidelines.

ID : O35

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**Title :**

HbA1c Levels and the Risk of Falls in the Malaysian Elders Longitudinal Research (MELoR) Study

**Background :**

Diabetes is an established risk factor for falls in the older persons, with medications featuring amongst the risk factors. The American Diabetes Association Standards of Medical Care 2022 suggest that individuals aged  $\geq 65$  years should maintain HbA1c target of 7.0-7.5% to reduce the risk of hypoglycemia.

**Aim :**

We interrogated the Malaysian Elders Longitudinal Research (MELoR) dataset to determine whether HbA1c levels influenced the risk of falls in this population.

**Methodology :**

Baseline (2013-2015) and first follow-up (FU) (2016) data from individuals aged  $\geq 55$  years recruited to the MELoR study using stratified random electoral roll sampling were utilized. The presence of diabetes was defined as self-reported physician diagnosed diabetes, use of antidiabetic drugs, fasting blood glucose  $>7\text{mmol/L}$  and HbA1c  $>6.5\%$ . Participants were asked if they had a fall in the past year during both surveys. HbA1c was determined at baseline using routine laboratory assays.

**Results :**

Five hundred and eighty-eight participants, 55% women, who fulfilled the criteria for diabetes had an HbA1c measurement. 368 (62%), 128 (22%) and 92 (16%) had HbA1c levels of  $<7\%$ , 7-8.5% and  $>8.5\%$  respectively. Overall 161/582 (27%) fell at baseline, while 74/315 (23.5%) fell at FU. Falls occurrence according to HbA1c groups was 101 (27.7%), 39 (31.0%) and 21 (22.8) ( $p=0.415$ ), while at FU 48 (22.7%), 16 (27.1%) and 10 (21.7%) of individuals with HbA1c  $<7\%$ , 7-8.5% and  $>8.5\%$  fell respectively ( $p=0.282$ ).

**Conclusion :**

The risk of fall occurrence cross-sectionally and at 1-3 years prospective follow-up did not differ with diabetes control measured using HbA1c. Despite concerns with regards to hypoglycemia risk of tight diabetes control leading to alterations in international guidelines, HbA1c of below 7% did not appear to be associated with increased falls in our cohort.



ID : O36

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**Title :**

Preliminary study: The effect of habatus sauda (Nigella sativa) oil on burning mouth syndrome.

**Background :**

Burning mouth syndrome (BMS) is a chronic pain disorder causing pain, discomfort or burning sensation affecting a majority of elderly. As the aetiology of primary BMS is not well-understood, it hinders the absolute management and requires a wide variety of treatment options with the least side effects especially among elderly. Nigella sativa (NS) has been favoured as a traditional remedy especially among Muslim society for a wide range of conditions including inflammatory diseases, hypertension, cholesterolemia and pain relief.

**Aim :**

To investigate the clinical performance of NS oil application on BMS in comparison to placebo.

**Methodology :**

This is a randomized, double-blind, placebo-controlled clinical trial on 12 patients which divided into two groups: Group A (n=6) applied 1.5 mL NS oil thrice daily while Group B (n=6) treated with placebo 1.5mL mineral oil three times a day for 8 weeks.. Multiple evaluations on BMS variables such as location, pain and quality of life were recorded before, at 4th and 8th week of NS/placebo application. . A comparison between the clinical pain numerical rating scale (NRS) and the chronic oral mucosal disease quality of life questionnaire (COMDQ-15) were evaluated over time.

**Results :**

All subjects were able to complete the clinical trial without experienced any adverse reaction at any of the assessment times. Significant difference was seen between the mean score of NRS between the placebo and active treatment at 4 weeks ( $p=0.0013$ ) and even greater difference at 8 week ( $p=0.0081$ ). Improvements were noted on the ventral of the tongue in both groups with significant difference ( $P=0.013$ ) and ( $P=0.043$ ) for treatment group and placebo group respectively. COMDQ-15 scores show improvement after 4th and 8th week with no significant differences between these groups except for social and emotional domain. ( $P=0.027$ ).

**Conclusion :**

The application of topical NS could offer pain relief and improve patients' quality of life. However, imminent studies with more number of subjects, systemic evaluation on the side effects and longer treatment period are essential to offer topical NS as a novel therapeutic option for BMS especially among elderly.

ID : O37

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**Title :**

Sarcopenia Risks Among Community-Dwelling Older Adults Attending To Government Health Clinics In Malaysia

**Background :**

Sarcopenia is a geriatric syndrome that associated with adverse health outcomes. However, sarcopenia is not routinely screened among community-dwelling older and thus limited local data on its prevalence and risk factors.

**Aim :**

This study is to evaluate the prevalence of "risk of sarcopenia" and its risk factors among community-dwelling older adults attending to government health clinics in Malaysia.

**Methodology :**

This cross sectional study included patients aged  $\geq 60$  years old presented to the 8 government health clinics, which were randomly selected from 5 main regions in Malaysia using 2-stage stratified cluster sampling design, from March to May 2022. Sarcopenia status was screened using SARC-F questionnaire, defined as "at risk of sarcopenia" with a score of  $\geq 4$ . Chi-square and Logistic regression were used to determine the factors associated with sarcopenia.

**Results :**

A total of 343 patients were included. The median age was 71 years old (67, 75). This cohort was classified into two groups: at risk (21%) and not at risk (79%) of sarcopenia. The associated factors of "at risk of sarcopenia" were age ( $p=0.03$ ), gender ( $p=0.003$ ), social living status ( $p=0.043$ ), clinical frailty score ( $p<0.001$ ) and serum albumin ( $p=0.019$ ). Malnutrition as identified using Mini Nutritional Assessment-Short Form (MNA-SF) was not associated with sarcopenia ( $p=0.185$ ). After logistic regression, female (adjusted odds ratio(aOR) 2.35; 95% confidence interval (CI), 1.06-5.22,  $p=0.037$ ), those not living with children (aOR 2.55; 95% CI, 1.22-5.35,  $p=0.013$ ), frail with clinical frailty score 4-9 (aOR 5.49; 95% CI, 2.42-12.41,  $p<0.001$ ), and hypoalbuminaemia (aOR 8.78; 95% CI, 1.90-40.7,  $p=0.005$ ) were independently associated with sarcopenia.

**Conclusion :**

One in five community-dwelling older adults was at risk of sarcopenia. Screening for sarcopenia should be incorporated in routine health screening among older adults attending health clinics especially elderly who are female, not living with children, frail and hypoalbuminaemia.

ID : P02

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**Title :**

Determinants Of Caregiving Burden And Quality Of Life (Qol) Among Informal Caregivers Of Dependent Elderly Patients In University Hospital

**Background :**

Caregivers may feel burdened by the role provided, affecting their quality of life (QOL). The need to assess caregivers' burden will help compose management improve the quality of life among informal caregivers for a better outcome in the future

**Aim :**

This study aims to determine the level of caregiver burden and quality of life (QoL) of the informal caregiver in managing the dependent older patients

**Methodology :**

This cross-sectional study was conducted at University Malaya Medical Centre (UMMC) using purposive sampling method with total sample size of 110 participants who are bring dependent elderly patient to Geriatric Medicine Unit University Malaya Medical for treatment. The modified caregiver strain index (MCSI) questionnaires were utilized to ascertain the caregiver burden and World Health Organization Quality of Life (WHOQOL- BREF) to assess the quality of life (QoL) of informal caregivers.

**Results :**

The result from this study showed that 69.1% of caregivers had extreme Caregiver Burden. 53.64 % of participant rate their quality of QOL as moderate. Informal caregiver age, household income, caregiver health status and caregiver race found to be associated with caregiver burden. Caregiver burden was also found to be a significant negative correlation with physical health, psychological and environmental domains in. Quality of Life

**Conclusion :**

The study concluded caregiver perceived extreme burden in taking care of dependent elderly patients and had significance effect with caregiver quality of life. The findings of this study indicate that healthcare practitioners should pay close attention to the caregiver burden and quality of life of caregivers. Therefore, continuous support, having coping strategies, and better understanding from healthcare provider consistently help to control the burden.

ID : P03

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**Title :**

Epidemiology and Clinical Characteristics of Older Patients with COVID-19 In A Tertiary Center (ECCEPCOVID19)

**Background :**

Older adults with COVID 19 infections fare worse. Local data is scarce.

**Aim :**

The study aims to explore and compare clinical characteristics, presentation, management and outcome between younger and older adults.

**Methodology :**

All patients aged 12 years and above with PCR proven COVID-19 infection admitted and managed in Hospital Tengku Ampuan Rahimah, Klang were included in the study. Data regarding sociodemographic background, medical history, management and outcome was collected from patients' medical records. Analysis was performed to compare the cohort and identify factors that adversely affect inpatient mortality.

**Results :**

259 patients were included (mean age 50.2 years, 77 adults 60 years old and above). Much more older adults (87.0%) had comorbidities. 168 (91.7%) younger patients were symptomatic on admission, comparing to 68 (88.3%) older adults. Most presenting symptoms did not differ with age group with the exception of delirium. 13% of older adults comparing with 0.5% younger adults had delirium. Older Adults were more likely to have more severe COVID 19 infection requiring intubation (9.1%), favipiravir use (65.4%), steroid treatment (75.3%) and intensive care admission (32.5%). Older adults had higher levels of C-reactive protein, urea and D-dimer with lower absolute lymphocyte counts and serum albumin. Older adults were also more likely to suffer from complications. There was higher inpatient mortality rate of 18.2% for older adults.

**Conclusion :**

Older adults with COVID-19 infection tend to have more severe disease, higher complication rate and inpatient mortality. Timely management is essential to avoid morbidity and mortality.

ID : P05

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**Title :**

Controversies and challenges related to frailty and diabetes in older adults

**Background :**

Diabetes mellitus (DM) is a metabolic disease defined by hyperglycaemia. Frailty is a condition that is the result of reduced physiological functioning and increases an individual's vulnerability. They are two prevalent conditions that often coexist and are risk factors of each other.

**Aim :**

This narrative review examines the current controversies healthcare professionals face when addressing the modern epidemics of frailty and DM.

**Methodology :**

A non-systematic search of literature related to frailty and DM in geriatric population was carried out. Considering guidelines and consensus related to this topic.

**Results :**

Frailty trajectories are worse in the presence of DM, what would increase the burden to the health systems imposed by frailty. Moreover, frailty contributes to hospitalization in patients with DM. They share not well understood common pathophysiological changes related to sarcopenia, a chronic state of low-grade inflammation, vitamin D deficiency, and maybe, short telomeres. Early detection of frailty in people with DM over 65 years provides the opportunity to consider targeted interventions that may reduce functional decline and risk of disability associated to frailty. Several brief, feasible and validated tools are recommended to this end and may be used in diabetic patients, even by themselves or their caregivers. A Comprehensive Geriatric Assessment should establish the objectives and best means for the care of frail diabetic patients. Exercise is the cornerstone of the treatment of both entities. The presence of frailty asks for a less stringent diabetic control and conditions the selection of drugs for the treatment of DM, but little fact-based knowledge on the effectiveness of existing and new treatments in frail diabetic patients is available.

**Conclusion :**

There remains several knowledge gaps that must be addressed, specifically on what clinicians and healthcare systems can do better to address the unique challenges of frailty and diabetes in older adults

ID : P06

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**Title :**

Outpatient Geriatric Care Via Telemedicine During COVID-19 Pandemic: Real Time Experience

**Background :**

The COVID-19 pandemic has disrupted healthcare delivery for older adults, including outpatient reviews. The geriatrics unit in Hospital Selayang has adopted an innovative way to overcome this by conducting phone consultations.

**Aim :**

This study aims to explore the real time experience of telemedicine with regards to its specific roles and feedback from patients and caregivers.

**Methodology :**

This is a prospective observational study conducted in Hospital Selayang from 26th July to 25th October 2021, where all follow up reviews in the geriatric outpatient clinics were conducted using phone calls. Descriptive statistics were analyzed and post hoc analysis was carried out to observe any significant associations.

**Results :**

A total of 100 patients were recruited into the study. Most participants were of Chinese ethnicity (48%), male (56%) and the mean age was 72.2 years. 84% of consultations were done with caregivers, the majority being patients' children. Language spoken was mostly in Bahasa Melayu (56%) and the mean call duration was 14.9 minutes. Most patients had minimal to moderate frailty (Clinical Frailty Score 4-6), were independent in mobility (62%) and feeding (83%), and remained continent (70%). The main diagnoses were cognitive impairment (59%), followed by stroke (23%) and Parkinsonism (19%). The mean Charlson Comorbidity Index was 4.5. In terms of intervention, 38% of patients needed medication adjustments and 18% of patients required early clinic review. There were 41 satisfaction survey respondents, 92.5% of them were caregivers. Most respondents found it easy to express their concerns during consultations (mean score 4.23), were willing to use telemedicine again (mean score 4.35) and would recommend it to others (mean score 4.18). Overall, respondents were satisfied with their consultation (mean score 4.38). Post hoc analysis revealed significant association between higher frailty scores and need for early clinic review.

**Conclusion :**

Applying telemedicine in outpatient geriatric care is challenging as many patients are frail, have multiple comorbidities and are reliant on caregivers. However, it can be useful in identifying those that require simple intervention but is less suitable for more frail patients. The use of telemedicine beyond the pandemic may improve healthcare accessibility for older adults, but further research is needed.

ID : P07

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**Title :**

Oral Health Status of Patients with Mild Cognitive Impairment (MCI): A systematic Review

**Background :**

The average life expectancy of the global population has significantly increased and lead to a growing number of older people. Consequently, the incidence of non-communicable diseases, including dementia, was becoming much more prevalent. For the past 30 years, a thousand research studies have been conducted to improve the understanding of dementia and develop therapeutic drugs to cure the disease. Unfortunately, the irreversible and progressive characteristic of dementia has transformed the research interest into the mild cognitive impairment (MCI) group: a valuable 'window' by the health care professional before the patients progress into the severe stage of Alzheimer's Disease (AD). Since 1989, the diagnostic criteria of MCI have evolved until the recent criteria published in 2018. The heterogeneity of diagnostic criteria and oral health assessment index in the literature cause wide-ranged of disease prevalence and the incidence of oral diseases. Therefore, the present systematic review was conducted to determine the oral health status of patients with MCI

**Aim :**

This systematic review aims to determine the oral health status of patients with mild cognitive impairment (MCI)

**Methodology :**

An electronic search was conducted using two different databases (National Library of Medicine (MEDLINE by PubMed) and EMBASE (Ovid) until February 2021. Several keywords and search terms have been used during the literature search process. The duplicate articles were removed and screened based on the selected research question. Out of 939 articles, 61 full-text articles were fully assessed, and twelve studies were selected and met the inclusion and exclusion criteria. Two independent reviewers reviewed the studies, extracted the data and assessed the risk of bias through the AXIS tool and Newcastle–Ottawa scale (NOS).

**Results :**

Twelve studies have met the inclusion and exclusion criteria. The heterogeneity between the studies was considered too large to conduct a meta-analysis. The oral health status of patients with mild cognitive impairment (MCI) was classified into six domains which are tooth status, periodontal status, oral hygiene status, denture and prosthesis status, oral pathology and other oral health assessments

**Conclusion :**

Overall, it is difficult to withdraw the concrete conclusions regarding the oral health status of patients with MCI. However, patients with MCI demonstrated a high prevalence of PD and had a greater risk of other oral diseases. The standard operationalises for clinical diagnostic criteria of MCI, and universal objective oral health measurement indices will significantly reduce the inconsistency and disagreement in the overall oral health findings.



**ID :** P08

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**Title :**

Dramatic Presentation, Promising Outcome: A Case Report of Phenytoin Toxicity In The Older Person

**Background :**

Phenytoin is classified as hydantoin derivative, an inducer of P450 enzyme. It is one of the commonly use anticonvulsant despite its narrow therapeutic index. Phenytoin causes central nervous system adverse effect: sedation, blurring of vision, nystagmus, ataxia, hyperkinesia, psychosis and encephalopathy. Nervous system and cognitive side effect are more common and deleterious with phenytoin comparing with other newer anticonvulsants. Dramatic nervous system presentations in older person with underlying seizure disorder often mislead clinician to other possible diagnosis then phenytoin toxicity.

**Aim :**

Careful history taking and supporting scientific evidence ruled out other possible diagnosis.

**Methodology :**

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**Results :**

A 69 years old Chinese lady, with background history of hypertension, epilepsy since teenage on oral phenytoin 300mg ON and major depressive disorder presented with altered behavioural for 2 months. Her symptoms gradually worsen for past 2 weeks prior to admission. Pre-morbidly patient's basic and instrumental activity of daily living was independent. She was staying alone and managing all by herself. Two months ago until admission, she became more agitated, had suicidal ideation, hypogeusia and fits. Lumbar puncture done to exclude CNS infection, Computered Tomography (CT) of brain showed recent infarct of left frontal lobe and magnetic resonance imaging (MRI) of brain shows small extra axial meningioma of left temporal lobe. Patient was empirically treated as autoimmune encephalitis completed a course of methylprednisolone. However patient remained bizarre. Serum phenytoin level later reviewed > 50 mg/L (Normal range < 10mg/L). Phenytoin was withheld. Patient symptoms improved dramatically.

**Conclusion :**

In conclusion, high index of suspicious for sub-acute phenytoin toxicity important especially in the older person with long term phenytoin use. Dramatic presentation can be prevented with early recognition of phenytoin toxicity.

ID : P09

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**Title :**

A Rapid Review of Outpatient Memory Clinic Service at Sarawak General Hospitas

**Background :**

Increasing longevity leads to higher prevalence of dementia and supporting people with dementia (PWD) is challenging. Caregivers often seek help late till the situation beyond their own capacity to manage independently.

**Aim :**

The main objectives of this study were to describe the demographics of PWD and challenges in timely diagnosis and management.

**Methodology :**

We studied all patients (N=104) seen during first visit to memory clinic between 1/1/2020 - 1/1/2022.

**Results :**

58.7% patients seen at memory clinic were between the age group of 65-79 years old, 55% were male, and 65% were Chinese. Almost 2/3 of them have completed either primary or secondary school education. Family members cared for 90%, whereas 10% were institutionalised. Cardiovascular risk factors such as hypertension and dyslipidaemia were reported as 85%, whereas diabetes mellitus was 38.5%. Nearly 60% of patients were on  $\geq 5$  medications during the first review at memory clinic. 2/3 of patients reported to have moderate to severe dementia during first visit to memory clinic and half of them reported cognitive decline of 2-5 years duration. Almost 50% of patients were identified to have clinical frailty score of  $\geq 6$ . 42% of carers reported behavioural and psychological symptoms of dementia (BPSD), namely psychosis (48%) and hyperactivity, irritation (36%). 44% of referrals were from public hospitals, 39% from primary care facilities and remaining 17% from private centres with average waiting time of  $> 12$  weeks. Among the 104 patients, 93% had dementia and 7% had depression. Among those with dementia, 44% had vascular dementia, 30% had Alzheimer's disease, and 13% had mixed dementia. 55% received dementia medication whereas 14% received antipsychotic at the end of first visit to memory clinic.

**Conclusion :**

PWD often present late to memory clinics typically when behavioural issues are difficult to cope. It reflects the need to broaden the workforce training among healthcare providers at all levels and as well as community awareness to improve health seeking behaviour for dementia symptoms. Significant pressure on memory clinic service to cater for huge volume of cases with long waiting time needs attention from stakeholders and highlights the need to expand the service.

ID : P10

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**Title :**

Malaysia's Geriatric Admission for COVID-19: Analysis on older adults with COVID-19 and factors associated with adverse outcomes

**Background :**

Malaysia is one of the countries hardest hit in the Asia Pacific region by the coronavirus disease (COVID-19) with harmful implications. As part of the contingency plan for the COVID-19 pandemic, a geriatric acute medical take was established in the Cheras Rehabilitation Hospital for the isolation, admission and management of older adults with COVID-19 from the greater Kuala Lumpur area. This unique 150 bedded facility was the first in Malaysia and remains the very few in the region to exclusively manage and provide holistic care to older adults with COVID-19.

**Aim :**

1. To determine the clinical characteristics of patients admitted to the geriatric acute medical take for COVID-19
2. To review the factors associated with severe illness; COVID-19 Category 4 or 5

**Methodology :**

All older adults age 65 years and above admitted for COVID-19 from January till November 2021 were included in this retrospective cross-sectional analysis. Variables for vulnerability namely the oldest old age group (age  $\geq 80$  years), cognitive impairment (4AT score  $\geq 4$ ), severe functional impairment (Katz Index  $\leq 2$ ), frailty with dependence (Clinical Frailty Scale  $\geq 5$ ), multiple co-morbidities (Charlson Comorbidity Index  $\geq 3$ ) and NHS COVID-19 Decision Support Tool (points  $\geq 9$ ) were tested for association with severe COVID-19 disease (Category 4 or 5).

**Results :**

943 patients were included in the study. Patients' mean age was 76.4 years (standard deviation [SD]:6.7) with significant co-morbidities being hypertension (69.7%), diabetes mellitus (46.4%) and ischemic heart disease (13.8%). 19.9% of them were diagnosed with severe COVID-19 pneumonia. Oldest old age group (OR 2.08, 95% CI 1.36-3.18, p-value  $<0.001$ ), severe functional impairment (OR 2.79, 95% CI 1.51-5.15, p-value  $<0.001$ ) and frailty with dependence (OR 1.75, 95% CI 1.16-2.64, p-value 0.007) were associated with severe COVID-19 pneumonia.

**Conclusion :**

The geriatric acute medical take is important for the isolation and management of COVID-19 among older people with functional impairment and severe frailty as they are more vulnerable to severe disease.

ID : P12

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**Title :**

Long Term Risk Of Falls In Older Person Living With Diabetes.

**Background :**

Diabetes mellitus has been identified as a risk factor for falls. Diabetes mellitus and falls are common in the older population and can therefore be considered 'geriatric giants'. Increasing numbers of research papers support the view that older type 2 diabetes patients are at heightened risk of falls and their deleterious outcomes. Additionally, research has revealed that older people with type 2 diabetes are 17 times more likely to fall than a younger male or female who does not have diabetes.

**Aim :**

To evaluate the association of an incidence of falls between DM and falls in older adults.

**Methodology :**

This was a prospective study that utilized the first and third wave data from the Malaysian Elders Longitudinal Research (MELoR) dataset. Participants were community-dwelling adults aged 55 years and older recruited from 2013 to 2015 (wave 1), drawn from the Malaysian electoral rolls of three parliamentary selected through simple random sampling and stratified by Malaysia's three major ethnicities: Malays, Chinese, and Indians as well as age deciles. This is followed by a 5th year follow up 2019 (wave 3). A cut-off age of 55 years was chosen to allow for examination of health concerns among older persons. The presence of falls was established by enquiring about falls in the preceding 12 months. Diabetes was defined as self-reported, physician-diagnosed diabetes, diabetes via medication use, glycated haemoglobin (HbA1C) level of  $\geq 6.3\%$ , and a fasting glucose of  $\geq 7$  mmol/L.

**Results :**

Diabetes was present in 337 (37.2%) of the overall 1661 participants. The prevalence of falls among older diabetics was 87 (26%) reported at least one fall in the previous year during their wave 3 follow-up interview.

**Conclusion :**

In conclusion, this study found that the annual incidence of falls in diabetics at the end of a five-year follow-up period was 26%. Prospectively, diabetes at baseline is related to an increased risk of falling during follow-up, but not with recurrent or injurious falls. Compared to those without diabetes, individuals with diabetes were at an increased risk of falls at five-year follow-up.

ID : P13

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**Title :**

Memory Clinic Service in Primary Care- An Integrated Seamless Care Approach

**Background :**

As the proportion of older adults in Malaysia increases, dementia is fast becoming a major public health concern. When dementia is managed in an integrated multi-disciplinary primary care setting, evidence suggests that the care has similar outcomes to that provided by specialists in hospitals. The seamless care model provides the benefits of task shifting and maintains an open communication between the teams in primary care with the specialty services in the hospital.

The Geriatric Medicine Unit of Kuala Lumpur General Hospital (KLGH) and Family Medicine Unit of Jinjang Health Clinic in Kuala Lumpur, Malaysia collaborated in the initiation of a seamless primary care-based memory clinic service since November 2020. This study provides an insight into this pilot healthcare model.

**Aim :**

This study aims:

1. To determine the clinical characteristics of patients reviewed in the memory clinic
2. To determine the factors associated with receiving a formal diagnosis of dementia during the first memory clinic review

**Methodology :**

All patients seen in the memory clinic from November 2020 till April 2022 were included in this retrospective cross-sectional analysis. Demographic data and variables of interest namely Lawton- iADL score, Modified Barthel Index (MBI), Charlson Comorbidity Index (CCI), Clock Drawing Test (CDT), Mini Mental State Examination (MMSE), and Montreal Cognitive Assessment (MOCA) were collected during the inaugural clinic visit and tested for association with a formal diagnosis of dementia.

**Results :**

28 patients were seen during the study period. The mean age was 78.9 years (standard deviation [SD]:6.7]) with 64.3% females and means of: Lawton iADL 2.6 (SD: 2.5), MBI 82.8 (SD:26.3), CDT 0.6 (SD:1.1), MMSE 17.9 (SD: 7.4) and MOCA 21.40 (SD: 6.9). 60.7% patients were diagnosed with dementia during the inaugural clinic visit. Age  $\geq 80$  years (OR 6.4, 95% CI 1.0-39.3, p-value 0.05); Lawton iADL  $\leq 4$  (OR 13.3, 95% CI 1.3-138.8, p-value 0.02); CDT=0 (OR 9.0, 95% CI 1.4-59.8, p-value 0.03); and MMSE  $\leq 25$  (OR 3.1, 95% CI 1.8-5.5, p-value 0.05) were associated with formal diagnosis of dementia.

**Conclusion :**

Oldest old age group, low Lawton iADL, CDT and MMSE scores were associated with diagnosis of dementia. These parameters may be useful for the screening of dementia in the primary care setting.

ID : P14

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**Title :**

A Case Series of Retest Positive for SARS-CoV-2 PCR in Recovered Covid-19 Geriatric Patients

**Background :**

In December 2019, a severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) infection was detected in Wuhan, China. The extensive spread of SARS-CoV-2 has led to a massive pandemic, associated with morbidity and mortality, particularly among older adults. Many of the COVID-19 geriatric patients, who have survived the acute phase of the illness, are currently rehabilitating and recovering. The retest positive of SARS-CoV-2 reverse transcription-polymerase chain reaction (RT-PCR) patients accounted for approximately 12% of the discharged patients, enough to arouse our concern

**Aim :**

This serial case describes cases of re-positive SARS-CoV-2 PCR following negative tests and clinical convalescence, in recovering geriatric patients

**Methodology :**

The participants of this report are three cases of hospitalized patient in geriatric room

**Results :**

This series of three geriatric cases with COVID-19 re-positive PCR test for SARS-CoV-2 after two times negative RT-PCR with Cycle Threshold (Ct)-value >30 for all three patients. None of those patients had a whole-genome-sequencing assessment

**Conclusion :**

This series of three geriatric cases with COVID-19 re-positive PCR test for SARS-CoV-2 raises questions in clinical practice about the value of testing for SARS-CoV-2 infection. The sensitivity of RT-PCR is affected by many factors. Reinfection, relapse, or re-positivity were three possible explanations for the re-positive testing. Proper clinical evaluation in geriatric patients with COVID-19 retested positive for SARS-CoV-2 will help identify factors associated with retested positive events to customize treatment and lead to a re-evaluation of the current discharged standards of COVID-19

ID : P15

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**Title :**

Delirium in COVID 19 infection: A case series

**Background :**

Delirium is an acute disturbance of attention and global cognitive capacity which can cause increased morbidity and mortality for elderly. Multifactorial model for delirium introduced predisposing factors and precipitating factors. COVID-19 in elderly shows atypical features, yet frequency of delirium in elderly with COVID-19 infection is notable.

**Aim :**

This serial case is describing delirium in COVID-19 in frail elderly patients.

**Methodology :**

The participants of this case series are two patients admitted to our ER with chief complain loss of consciousness and later found had COVID-19 infection.

**Results :**

Case 1. A 95-year-old male was admitted to ER for loss of consciousness 1 week prior. Patient previously complained of fever and cough for 3 weeks with positive RT-PCR SARS CoV2 swab. The symptoms were worsening during isolation along with hemiparesis, altered mental status and loss of appetite. Patient had several comorbid including type 2 diabetes mellitus, hypertension, ischemic stroke, immobility, malnutrition, and frailty.

Case 2. A 84-year-old female was admitted to ER also for loss of consciousness 4 days prior. Patient had loss of appetite for a week without fever or cough. She also had history of multiple falls within one month and was bedridden hence developed pressure ulcer. Due to pandemic, she hadn't consult to doctor for 2 years regarding her comorbid i.e. type 2 diabetes mellitus and hypertension. She also had geriatric problems such as immobility, malnutrition, frailty. Patient was admitted at COVID ICU for severe COVID-19 with ketosis.

**Conclusion :**

After recover from COVID-19, both patients didn't recover consciousness and exhibit sign of persistent delirium. The outcome of Case 1 was death and case 2 was discharged with persistent delirium. Delirium was associated with adverse clinical outcome such as death and ICU stays hence it can be used as marker for poor clinical outcome. Delirium is more common in frail elderly with covid-19. Since COVID-19 signs in elderly are atypical, delirium awareness must be raised in family, caregiver and health care provider.



**ID :** P17

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**Title :**

The feasibility of breast cancer chemotherapy in elderly

**Background :**

A comprehensive geriatric assessment aimed at identifying patient needs, is an evidence-based strategy for assessing functional status.

**Aim :**

In elderly patients with advanced cancer it is used to predict chemotherapy-associated toxicity. SIOG and NCCN recommend performing CGA in the elderly with cancer

**Methodology :**

-

**Results :**

When the diagnosis of advanced breast Ca was made, the overall CGA was still good, so the patient was given chemotherapy. The presence of MDS was thought to be due to chemotherapy. Elderly patients tend to have greater side effects of chemotherapy. Three months later it spread to the bone, causing great damage to the patient, severely reduced mobility as well as decreased other components of the CGA. The consideration of possible side effects or drug effectiveness must be careful in the elderly.

**Conclusion :**

Elderly with advanced breast cancer, survive more than 3 years.

ID : P18

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**Title :**

Dynapenia and diabetes in a peripheral hospital restorative unit

**Background :**

Dynapenia is an aged related decline in skeletal muscle strength which predisposes to loss of function. Similarly, diabetes is associated with frailty and lower skeletal muscle mass in older people.

**Aim :**

Investigate the association between dynapenia and diabetes in a peripheral hospital restorative unit where older people are provided with rehabilitation. Admission to the restorative is by transfer from acute geriatric medicine wards and acute medical or surgical units in a tertiary hospital.

**Methodology :**

Retrospective study 31 older patients recruited in 30 days (January 2020) as a snapshot into the activity of the restorative unit. Dynapenia was defined by handgrip strength of <20kg for women and <30kg for men. Diabetes was determined by presence of a diagnosis for T2DM in the discharge letters. Analysis: Conducted chi square and students T test for continuous variables. Main outcome measure is association of dynapenia and diabetes.

**Results :**

24 of the 31 recruited consented or were able to have handgrip measurements. 22/24 (92%) restorative unit patients had dynapenia. 7/24 (29%) had diabetes. 6/22 (27%) of the dynapenia patients had diabetes. Of these 6, 4 of them had macro-vascular complications, and 2 used insulin. 1 patient with diabetes did not have dynapenia, and this patient was also free from macro-vascular complications and need for insulin. One of the dynapenia patients had hyperglycemia without a formal diagnosis of diabetes. HbA1c levels of the patients with diabetes ranged between 5.3 to 7.5%, indicating a cohort with good diabetes control. There was no association with gender for diabetes and dynapenia.

**Conclusion :**

Diabetes and dynapenia are modifiable risk factors which independently carry equal risk for the development of frailty in older people. The association between diabetes and dynapenia was not statically significant. Less than a third of the dynapenic patients had diabetes. Patients with diabetes and macro-vascular complications or who require insulin may be at higher risk of dynapenia.

ID : P19

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**Title :**

Case Report: Faecaloma In The Disabled Elderly With Spurious Diarrhoea And Abdominal Mass

**Background :**

Faecaloma is a form of faecal impaction whereby there is an accumulation of hard impacted faeces most commonly in the rectum and rarely in the sigmoid colon.<sup>1,2</sup> It is usually present in elderly patients with chronic constipation who are bedridden.<sup>1,2,3</sup> We present a 64-years-old male bedridden with multiple comorbidities and a permanent physical disability from a right transfemoral amputation followed by an ischaemic stroke in 2016. He was admitted to the acute COVID-19 isolation ward for COVID-19 infection Category 4 complaining of shortness-of-breath, fever and cough. Upon admission, he was unable to pass urine spontaneously with a grossly distended abdomen that revealed a firm abdominal mass after urinary drainage via Foley catheter. He reports having chronic constipation but was noted to be having diarrhoea in the ward. Computed tomography (CT) imaging revealed a grossly distended rectum and sigmoid colon with faecal impaction, likely resulting in bilateral mild hydronephrosis. Hence, a diagnosis of faecaloma causing bilateral mild hydronephrosis was made. The patient was managed conservatively with daily manual disimpaction, rectal washouts and laxatives.

**Aim :**

This case teaches us the importance of early diagnosis of faecaloma for prompt management and prevent its recurrence and complications.

**Methodology :**

-

**Results :**

Patient was discharged home post COVID-19 infection with persistent chronic constipation.

**Conclusion :**

Faecaloma should be a differential diagnosis in any elderly patient with a history of chronic constipation and abdominal mass especially if they are bedridden. For these elderly patients, improving their toileting or providing assistance to manage their constipation is important in improving their quality of life and prevention of devastating complications.

ID : P22

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**Title :**

Acceptability And Perceptions Of Virtual Fall Prevention Group-Based Exercise Program Trial Sessions Among Older Adults With Low To Moderate Risk Of Falls At Kuching, Sarawak

**Background :**

There is limited information on virtual group-based fall prevention exercise among community-dwelling older adults.

**Aim :**

In this study, we examined the acceptability and explored older adults' perceptions of virtual fall prevention group-based exercise program trial sessions among older adults with low to moderate risk of falls.

**Methodology :**

The trial recruited community dwelling adults aged 60 and above with a TUG cut off point of  $\geq 11.2$  seconds. Participants attended two trial sessions of virtual group-based fall prevention exercise program via ZOOM apps before a focus group discussion (FGD) using a semi-structured questions and acceptability rating scale on 1-10 Likert scale. Sessions were transcribed verbatim, and transcripts were analyzed using thematic analysis

**Results :**

"Six older adults who had mean age 66.2 years (range 61- 76 years) participated in one session of FGD. One participant was male; two used desktops, and four used smartphones ranging in value from RM500 to RM1800 to access the zoom session (FGD and the exercise sessions). The mean acceptability rating 8.3 (range 7-10). Three main themes emerged from this study, including 1. Experience of getting involved in virtual exercise as "Something new

**Conclusion :**

learning", 2. intensity and exercise component: "2 times a week with different components is good"; 3. Challenges or benefits: "small screen

ID : P23

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**Title :**

Adaptation of an Oral Hygiene Care Questionnaire for Nurses Caring for Geriatric Inpatients

**Background :**

The older adult population in Malaysia and around the world is increasing due to the advancement and improvement in health care delivery and awareness on healthcare needs of this population. An important area of need that is often neglected in older people is oral health, especially when they are frail and need hospitalisation. The hospital admission provides an excellent opportunity to address poor oral health in older people. Nurses are in the best position to educate and provide the daily oral hygiene care for these patients. To date, there is no suitable oral hygiene care questionnaire for nursing staff caring for older inpatients which assesses all these four domains; knowledge, attitude, practices, and barriers.

**Aim :**

This study was aimed to validate an oral hygiene care questionnaire on knowledge, attitudes, practices, and barriers (KAP+B) for nurses caring for older inpatients.

**Methodology :**

The study was conducted in two phases to assess the validity and reliability of this adapted research instrument. The first phase was the face and content validity of the questionnaire by a panel of experts measuring the validity of the research instruments. This was followed by assessment of the construct validity in the second phase to test the reliability of the questionnaire using exploratory factor analysis.

**Results :**

Thirty-three nurses from the Geriatric Ward of the University of Malaya Medical Centre participated in the study giving an overall response rate of 82.5%. Following the reliability analysis, a total 24 items were adapted for the final questionnaire. It comprised of 4 items from the knowledge domain, 4 items from the attitude domain, 9 items from practice domain and 7 items from the barrier's domain.

**Conclusion :**

The findings of this study show that the adapted questionnaire is a suitable and valid tool to assess KAP+B, has an acceptable conceptual structure and provides reliable information about the domains being evaluated in the adapted questionnaire tool.

ID : P24

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**Title :**

The prevalence and appropriateness of urinary catheterisation in geriatric inpatients

**Background :**

Urinary catheterisation is a major risk factor for older persons to develop sepsis originating from the urinary tract. It is associated with other complications in the elderly such as delirium, urethral injury and urinary retention post-catheter removal.

**Aim :**

This study aims to identify the prevalence and appropriateness of urinary catheterisation amongst the elderly population in hospital and its complications.

**Methodology :**

This is an observational study of all patients aged >65 admitted to the geriatric ward in University Malaya Medical Centre (UMMC) from 1st February 2022 to 30th March 2022. All patients were assessed to identify the presence of urinary catheterisation during their admission via the emergency department (ED). Comorbidities, indication for catheterisation and catheter-related complications were recorded.

**Results :**

Prevalence of urinary catheterisation was about 70%. Out of 128 patients, 90 had urinary catheters upon arrival to the geriatric ward. Of the 90 patients, 22(24.4%) patients came in with a urinary catheter from home or nursing home and the remaining 68(75.6%) patients had urinary catheter insertion in the emergency department. In the latter group, only 24 out of the 68 patients (35.3%) had documented indications for urinary catheterisation in the electronics medical review (EMR), 8 of which were inappropriate indications based on CDC guidelines. Of the remaining 44(64.7%) without documented indication, the majority were found to have urinary catheters inserted inappropriately, for example, for collection of urine samples, immobile patients, and measurement of urine output in non-critically ill patients. Amongst all the patients who had urinary catheterisation upon admission, 10.3%(n=7) of the patients developed catheter-related complications. 11 patients who were admitted without prior catheterisation were discharged with a urinary catheter. All the patients in this study were followed up for one month post-discharge. Amongst the 24 patients who were discharged with a urinary catheter, 3(12.5%) patients were readmitted to the hospital with catheter-related complications.

**Conclusion :**

This observational study has brought to light the urgent need to reduce inappropriate urinary catheterisations. Multimodal interventions may be needed to limit inappropriate catheterisations. It is prudent for geriatricians to revisit the indication of urinary catheterisation even in patients who were admitted with long-term urinary catheters.

ID : P25

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**Title :**

Visual Function Status Among Geriatric Patients and Caregivers in Hospital Sultanah Bahiyah

**Background :**

The United Nation has estimated that 15% of world population suffered from more than one impairment, affecting 46% of individual aged 60 years and above. Ageing is the risk factor for visual impairment. In Malaysia, National Eye Survey II has reported that 86.3% of blindness among person aged above 50 years are avoidable. Another study in Selangor has reported that one in three elderlies has visual impairment. Hence, visual function screening is essential to improve independence and safety of the elderly.

**Aim :**

To report retrospective data on demographic and visual function status among elderly patients and caregivers who attended Geriatric Clinic in Hospital Sultanah Bahiyah.

**Methodology :**

Retrospective descriptive report.

**Results :**

22 elderly patients and 2 elderly caregivers has been screened from the month of January until April 2022. All patients and caregivers (10 females, 14 males) with age range of 61 to 89 years old were diagnosed with more than one comorbid disease and more than one impairment. 33% of the subjects had history of fall and multiple fall. 7 subjects never had their eyes or vision tested before while 9 out of 17 subjects (53%) had their eyes checked more than 2 years ago. Screening includes near vision, color desaturation, visual field and corneal reflex assessments. Among 10 subjects screened, 100% had reduced near acuity, 2 subjects had central scotoma and 2 with advanced peripheral vision restriction. Almost all subjects had poor corneal reflexes due to media opacity and small pupil size. 3 subjects had agreed for referral to Optometry Clinic for Refraction as well as Low Vision and Visual Rehabilitation assessments.

**Conclusion :**

Optometric intervention is essential among elderly with multiple impairment to minimize the impact of disability, to optimize quality of life and to ensure safety.



ID : P26

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**Title :**

Nasogastric tube insertion in acutely unwell older people admitted to hospital: a cross-sectional analysis

**Background :**

The role for nasogastric tubes (NGT) among older people admitted to hospital is uncertain and ethically challenging. There is no guidance on this locally.

**Aim :**

This study aimed to describe new NGT insertion practices in a university hospital.

**Methodology :**

All patients admitted to the geriatric medicine ward from 1/1/2022-4/3/2022 were retrospectively identified for their eligibility. Only new NGT insertions were included. Data was collected via electronic medical record for their characteristics, practices around NGT care and inpatient mortality.

**Results :**

Out of 189 admissions during this period, 128(67.7%) patients did not have a NGT, 15(7.9%) patients already had a NGT in-situ, and 1(0.5%) patient had a gastrostomy tube. 45(23.8%) NGT-naïve patients had a NG tube inserted during this period. Among these 45 patients, 26(57.8%) were female, had a median (IQR) age of 81.9(12) years, and 13 (28.9%) patients resided in nursing homes. Over half were dependent (22, 48.9%, patients were fully dependent; 10, 22.2%, patients were partially dependent) and immobile (20, 44.4%, patients were bed-bound; 3, 6.7%, patients were chair-bound). The majority, 31(68.9%) patients, had a NGT inserted in the Emergency Department. The most common indication was low consciousness (40%), followed by an acute stroke (17.8%). Physical restraints were documented to be used in 13(28.9%) patients. 22(48.9%) patients had at least one complication associated with their NGT. Pneumonia was reported in 16(35.6%) patients. 16(35.6%) patients had dislodgement of their tube. 18(40%) patients died during their hospital stay. Only 4(22.2%) patients had their NGT removed prior to their death. Among the 27(60%) patients discharged, 14(51.9%) left hospital without their NGT as they were deemed safe by the speech therapist. The median (IQR) inpatient stay was 12(17) days.

**Conclusion :**

Almost one-quarter of acutely admitted older people had a NGT inserted. The majority in this group were very dependent with reported high inpatient complications and mortality. The beneficial effect for NGT in this vulnerable group is unclear. A careful patient-centred multidisciplinary discussion needs to be had to determine a NGT's appropriateness on an individual basis. This has to be done in the Emergency Department where the majority is inserted.

ID : P27

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**Title :**

Telephone Consultation Service for Geriatric Outpatients during the COVID 19 Pandemic – A retrospective study

**Background :**

The COVID 19 pandemic has significantly affected patient care. Older adults are at higher risk of complications and mortality from COVID-19. By January 2020, China implemented the first total lockdown, followed by other countries worldwide. Lockdown was implemented as part of a preventive measure where all non-essential services were forced to close, and staff asked to work from home. Essential services such as health care were allowed to continue, but with strict measures such as social distancing and compulsory mask-wearing.

Geriatric medicine consists mainly of non-urgent medical care. However, conditions such as behavioral and psychological symptoms of dementia (BPSD) and other chronic conditions can result in emergency department attendance and hospitalization if not managed in a timely manner. Older patients face many barriers to healthcare services compared to young adults. This issue appears more prominent during the pandemic. Preventive measures to reduce congestion such as social distancing indirectly increases the waiting time to see healthcare professionals. Some rely on family members or children to attend follow-up. Moreover, travel restrictions have significantly affected access to healthcare services. In addition, there are concerns and fear of contracting Covid in the geriatric population while seeking care (Bhaskar, Bradley et al. 2020). Hence some choose to defer their appointments. Therefore, it is important to enable access to health care services during the pandemic.

Telemedicine refers to providing medical care through electronic communication rather than the traditional physical consultation between doctors and patients. The COVID-19 pandemic has resulted in the emergence of telemedicine use globally (Smith, Thomas et al. 2020). Previous studies have reported that telemedicine is an efficient and effective form of healthcare delivery, particularly for older people (Merrell R.C. 2015). A recent study from Singapore demonstrates a significant proportion of older adults' acceptance of telehealth (Tan, Li Feng et al. 2020).

During Malaysia's first wave of the COVID-19 pandemic, the Geriatric unit of Hospital Selayang introduced a telephone consultation service for outpatient Geriatric clinics. We conducted this service from 1st June 2020 until 31st December 2020. We initiated this service intending to provide continuity of care to our patients while simultaneously minimizing the risk of infection.

**Aim :**

1. Provide continuous outpatient care to our patients during the pandemic
2. Reduce the number of physical attendances to the clinic.
3. Explore possibility of expanding the role of TC in the future

**Methodology :**

This retrospective observational study describes the TC service for patients attending follow-up in Selayang Hospital from 1st June 2020 till 31st December 2020. The study period was six months. We screened patients who were deemed suitable for TC based on their most recent documentation from the hospital's electronic medical case notes. The inclusion criteria were as follows:

1. Geriatric age group ( $\geq 65$  years old)
2. An established primary diagnosis and under geriatric clinic follow-up
3. Clinically stable

#### 4. Access to a telephone

The exclusion criteria:

1. New referrals.
2. Patients with communication difficulties with no reliable collateral history.
3. Patients whose last physical review/appointment was approaching 12 months.
4. Patients with an uncertain diagnosis.
5. Patients/ carers who declined telephone consultation.
6. Patients who were unreachable via telephone.

The TC were conducted by geriatric specialists/fellows a week prior to the patient's scheduled appointment. Three call attempts were allocated for each eligible patient. All calls were performed during office hours.

#### **Results :**

A total of 602 follow-ups were encountered in the year 2020. 253 patients were identified as suitable for a TC. 208 out of 602 patients had their review via telephone consultation (34.5%). 13 out of 253 (5%) patients declined telephone consultations and requested physical reviews due to ongoing concerns. 32 (12.6%) were not contactable during the screening process. The mean age was 72.9 years old. 58% were male and 42% were female. Dementia made up more than half of the cases (58%) followed by movement disorder (23%) and stroke (18%). The average duration of TC was 14 minutes (SD 7.5 minutes), ranging from 5-40 minutes. 148 (71.2 %) patients' conditions were static, 19 (9.1%) reported improvement, 41 (19.7%) suffered a deterioration. The majority of telephone consultations were performed with immediate family members. All participants were satisfied with the service and were willing to use it again if given the option.

#### **Conclusion :**

Telephone consultation represents an alternative method to deliver care. This pilot study demonstrates that a telephone consultation service among geriatric patients is viable and appropriate in the current pandemic situation and effective in reducing congestion. It is convenient with minimal cost and expertise required. Future research is required to determine patient groups most suitable for telephone consultation and how best to integrate it with a traditional outpatient service.

ID : P28

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**Title :**

Mild Cognitive Impairment among Elderly Patients in Primary Care and Its Factors

**Background :**

The older population is associated with morbidities and reduced quality of life. This also include memory disturbance and the most common cause of it is dementia which is irreversible and difficult to be managed. Nevertheless, there is a preclinical stage known as mild cognitive impairment in which if detected early can be controlled and prevented from progress into dementia. Therefore, its predisposing factors among community geriatrics need to be identified.

**Aim :**

To measure the prevalence of mild cognitive impairment (MCI) and its associated factors among geriatric patients follow up at government health clinics in Kuantan

**Methodology :**

Minimum 220 geriatric patients will be screened for MCI randomly from all health clinics in Kuantan using Elderly Cognitive Assessment Questionnaire and Barthel index. The background characteristics of patients, which includes age, gender, education background, family history, past medical history, body mass index, blood pressure measurement, blood sugar level, smoking status and geriatric depression score (based on Geriatric Depression Scale) will be recorded. Chi square test, t-test, simple and multiple logistic regression will be used to assess association and predictors for MCI.

**Results :**

The prevalence of MCI is 27% which is higher than worldwide data but comparable to other local studies. There is a significant difference of the MCI status between age group, gender, job status, education, income, daily activities and family support ( $P < 0.005$ ). Multivariate analysis proved that only age and education status predicts the MCI.

**Conclusion :**

This study proves that morbidities control is not the main predictor for MCI instead of Dementia. However education level do predict the occurrence of MCI, in which all geriatric should be encouraged to involve continuous education program or environment to prevent MCI.

ID : P29

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**Title :**

A Study Of Osteoporosis Among Elderly In Medical Department, HSNI.

**Background :**

Treatment of osteoporosis is important to prevent fragility fracture, but there is evidence that osteoporosis is underdiagnosed and undertreated.

**Aim :**

We aimed to address this by carrying out a survey to identify the proportion of untreated osteoporosis among elderly patients in Medical Department HSNI, sites of fracture, and barriers in osteoporosis treatment.

**Methodology :**

This prospective study was performed in Outpatient and In-patient of Medical Department of a tertiary hospital in Johor from Nov 2021 to May 2022. Patients 60 years old and above presented with osteopenia, or primary or secondary osteoporosis, or with history of low trauma fracture were recruited and survey was done using self-constructed Interview Guide.

**Results :**

Out of 33 patients identified as osteoporosis, 30 patients (91%) has history of low trauma fracture and 3 patients (9 %) had history of osteopenia. 14 patients (46.7%) had their fracture at the age of 75 to 84, with hip fracture predominates (33%). Only 15 patients (45.5%) were diagnosed with osteoporosis, and received osteoporosis treatment, while 18 patients (54.5%) underdiagnosed. Out of 15 patients treated, 12 patients received bisphosphonate, 2 received denosumab, and one was on hormonal therapy. 6 patients (50%) on bisphosphonate has difficulty to comply to treatment, due to weekly administration, and 4 patients (33.3%) experience gastric discomfort from bisphosphonate. No patient defaulted treatment, but one switch treatment from bisphosphonate to denosumab due to gastric discomfort. Among patients receiving osteoporosis treatment, only 33% done BMD. 36.4% did BMD test before starting treatment, and 63.6% after completing a course of treatment.

**Conclusion :**

Osteoporosis generally not prioritised, leading to low rate of screening, this may be due to multiple medical conditions during consultation, lack of doctor-patient time, and limited access to BMD tests or anti-osteoporotic medications in Medical Department. Increase in osteoporosis screening is crucial to prevent fragility fracture. This study is limited by the small sample size.

ID : P30

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**Title :**

Implementation of Delirium Nursing Protocol for Older Hospitalized Patients: A Pilot Study

**Background :**

Delirium in older people can be devastating and challenging to the nurses. Our previous study showed that more than half of the healthcare personnel in our centre had inadequate knowledge in delirium, which has a significant association with the current practice. Hence, we identified the need for a structured delirium nursing protocol and training of the nurses as the forefront of older adults' care. This pilot study can be expanded in the future for other health personnel involved in the care of patients with delirium.

**Aim :**

(1) To develop a Nursing protocol on delirium assessment, (2) to assess the impact of the nursing protocol on in-patient delirium, length of stay, and in-patient fall and (3) to improve the self-confidence of nurses when caring for patients with delirium.

**Methodology :**

Fourteen articles were identified and reviewed for protocol development. The articles consist of three scoping reviews on measurement tool and assessment for delirium, three articles on nurses' knowledge, practice and attitude on delirium assessment and management, two on delirium training program for nurses, three articles on the effect of nurse-led delirium prevention, and three articles on nursing care of patient with delirium. The initial draft was developed by a geriatric specialist nurse and reviewed by a geriatrician. The nursing team then discussed the feasibility and implementation strategies.

**Results :**

The protocol was piloted in May 2022 with the appointment of the Geriatric Nursing Intervention Team (GeNIT) that is responsible for basic geriatric screening and nursing care plan, for all older patients in the medical and surgical ward. The effect of the protocol will be evaluated via monthly audit and outcomes will be analyzed by the number of in-patient deliriums identified, length of stay and the number of in-patient falls. Nurses Confidence level on delirium assessment will be evaluated via nursing competency audit after 6 months of delirium training.

**Conclusion :**

The Delirium Nursing Protocol offers upskilling and education to nurses and improving their self-confidence when caring for patients with delirium. It was successfully developed based on a literature review of the delirium assessment, prevention, and management. This pilot project will inform the feasibility of a long-term implementation of Delirium Nursing Protocol and will be the basis of our quality improvement (QI) initiative in the future.

ID : P31

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**Title :**

Reversed Clock Drawing Phenomenon in patient with Vascular Dementia and Vascular Parkinsonism: A Case Report

**Background :**

Reversed Clock Phenomenon (RCP) occurred when the numbers are drawn counterclockwise in a clock drawing test. It reflects cognitive and visuospatial deficit in dementia and commonly reported in lesions of cortical or subcortical area of the right cerebral hemisphere. In most cases, the RCP will be more apparent in the acute phase and subsequently resolved within a few weeks. We report a case of persistent reversed clock phenomenon in a patient with three-year history of post-stroke vascular dementia (VaD) and vascular parkinsonism.

**Aim :**

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**Methodology :**

-

**Results :**

A 64-year-old gentleman with history of recurrent stroke in 2018 and 2020, presented to our clinic in March 2021 with worsening memory impairment and frequent episodes of fall. There was no new weakness of the limbs. Clinical examination showed bradykinesia and shuffling gait. Cerebellar signs were negative. MMSE showed cognitive impairment with the score of 24/30 and Clinical Dementia Rating (CDR) of 1. He manifested the clock drawing test with reversed clock phenomenon. MRI brain showed mild global atrophy predominantly at bilateral temporo-parietal lobes (MTA score 1). There were hypodense lesions over bilateral centrum semiovale, corona radiata, periventricular and external capsule regions representing a small vessel disease. His blood investigations were unremarkable. He was diagnosed with Vascular Dementia with Vascular Parkinsonism and was started on an acetylcholinesterase (AChE) inhibitor and L-Dopa therapies. Subsequently his condition improved, and the RCP manifestation resolved.

**Conclusion :**

This case exhibited the condition in a patient with bilateral cerebral lesion instead of on the right cerebral hemisphere. Furthermore, the RCP persisted even after a year of last diagnosis of stroke. RCP may be persistent in patient with more severe or intensive damage to the network involved in the spatial and planning of the brain. The mechanism in which neurological function being restored after a stroke is still under research. Patient may benefit from rehabilitation focusing on the visuospatial ability and function. Although the role of acetylcholinesterase (AChE) inhibitors showed mixed results in VaD, this case showed a benefit of AChE inhibitor in patients with persistent RCP and visuospatial impairment.



ID : P32

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**Title :**

Malnutrition in cognitively impaired older patients

**Background :**

Malnutrition and impaired functional mobility were common and carried significant morbidity among older patients, including those living with dementia.

**Aim :**

To identify risk factors associated with malnutrition in cognitively impaired older patients and determine the association between malnutrition and the risk of falls.

**Methodology :**

This is a retrospective cross-sectional study of all patients who attended Memory Clinic Hospital Sultanah Bahiyah, Kedah, from 1st September 2020 to 31st May 2022. All patients who could cooperate for Mini Nutritional Assessment-Short Form (MNA-SF) and Timed up and Go (TUG) test were included. Wheelchair-bound and bed-bound patients were excluded. MNA-SF and TUG test were used to assess nutritional status and functional mobility. In addition, demographic data were collected from the electronic medical record(e-HIS). SPSS version 21 was used for data analysis.

**Results :**

A total of 36 patients were included with a mean (SD) age of 76.9(7.3) and slight female predominance (58.3%). Three (8.3%) patients had mild cognitive impairment (MCI), while the rest had dementia. The majority (31/36; 86.1%) were mild dementia. The mean MNA-SF score was 10.3(1.9). MNA-SF revealed that 9 (25%) patients were normal, 25 (69.4%) were at-risk malnutrition, and 2 (5.6%) were malnourished. Significantly more cognitively impaired patients who were not taking anti-dementia medications were at increased risk for malnutrition. (93.8% vs 60%,  $p=0.026$ ). Patients at risk of malnutrition had a nonsignificant higher mean TUG time than non-malnourished patients (18.6 seconds vs 14.9 seconds,  $p=0.178$ ). There was a weak negative correlation between MNA-SF and TUG time ( $r=-0.38$ ,  $p=0.022$ ). There was no association between falls and malnutrition (75.0% respectively,  $p>0.999$ ).

**Conclusion :**

Patients on dementia treatment had a lesser risk of being malnourished. MNA-SF and TUG time had a weakly negative correlation, but the poorer nutritional status was not associated with falls.

ID : P33

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**Title :**

Assessment of Attitudes Toward Deprescribing among Older Adults in Malaysia

**Background :**

Deprescribing is an integral component of a continuum of good prescribing practices to prevent medication-related complications and improve health outcomes. However, the willingness of older adults to stop their medication and factors influencing the decision to deprescribe remains unclear.

**Aim :**

This study aims to describe the self-reported willingness of older adults to stop their medication and determine characteristics that are associated with these attitudes.

**Methodology :**

We conducted a self-administered survey among older adults using the revised Patients' Attitudes Towards Deprescribing (rPATD) questionnaire. Older adults aged 60 years and above taking 5 or more medicines were invited to complete the rPATD. Descriptive results were reported and a correlation between participants characteristics and responses were analysed.

**Results :**

The survey included 240 participants (median age 76 years, 51.2% female). While most participants (70%) were satisfied with their medication, an almost equal number were willing to stop medications if their doctor said it was possible (74%). Those who are younger and those with higher level of education were correlated with greater agreement to stop their medications and involvement in their decision on medication management.

**Conclusion :**

Older adults were willing to stop one of their medicines if their doctor said it was possible and would like to be involved. As such, clinicians should consider engaging older adults in their decisions during any prescribing or deprescribing decisions.

ID : P34

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**Title :**

Effects of Gender and Education Level on Malnutrition Among Hospitalized Elderly Patients in Kuching, Sarawak

**Background :**

Malnutrition in the elderly is an important health concern.

**Aim :**

This study aims to estimate the prevalence of malnutrition among hospitalised elderly patients and its associated factors in 3 cluster hospitals in Kuching district, Sarawak.

**Methodology :**

In a cross-sectional study, we evaluated the nutritional status of 133 elderly inpatients aged 65 years and above, using the Mini Nutritional Assessment-short form (MNA-sf). Patients were divided into non-malnutrition group (MNA-sf 12-14), the group with risk of malnutrition (MNA-sf 8-11) and malnutrition group (MNA-sf 0-7).

**Results :**

The average age of the participants was 76.2 years old (SD = 7.63). The majority of the participants were male (60.9%) and the average length of hospitalization was 12.2 ( 9.96) days. The prevalence of malnutrition, and at risk of malnutrition, were 27.1% and 48.1% respectively. The factors associated with malnutrition were age, gender, education level, and employment. Age was positively associated with malnutrition; with every year increase in age, the degree of being malnourished increased by 0.77 (P = <0.01). Females had a significant greater percentage of malnutrition compared to males (38.5% vs 19.8%; P = 0.014), even after adjusting for education level. Patients without no formal education/primary education had a significantly greater percentage of malnutrition compared to those who had secondary education and tertiary education (36.1% vs 8.3% vs zero %; P < 0.001 ). Similarly, patients who were unemployed had a significantly greater percentage of malnutrition compared to those who were employed or were pensioners (37.2% vs 12.5% vs zero %; P < 0.001). In terms of health-related characteristics, none were found to have a significant association with the nutrition status.

**Conclusion :**

Screening of malnutrition is important for elderly patients, especially those who are at higher risk of malnutrition. This is that so timely nutrition intervention can be given to these patients to improve outcome of hospitalization.

ID : P35

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**Title :**

Seamless Geriatric Care (SGC) As An Integrated Primary And Tertiary Healthcare Services: An Assessment From Klang District

**Background :**

Primary and tertiary healthcare services for the elderly in Malaysia are not frequently integrated. It can be challenging because the elderly often have complex care needs to navigate and access healthcare services. Therefore, comprehensive multidisciplinary integrated care approaches are needed to avoid functional loss among the elderly.

**Aim :**

Thus, this study aims to describe the model of SGC in the Klang district.

**Methodology :**

Complicated cases with geriatric syndromes were selected and discussed during monthly multidisciplinary team meetings involving twelve health clinics in Klang, the geriatricians from Hospital Klang, and other allied personnel and non-government organizations (NGOs). Case management strategies based on Comprehensive Geriatric Assessments (CGA) were performed and appropriate interventions including home visits and referrals were recommended. Modified Barthel Index (MBI) was used to assess the functional level.

**Results :**

A total of 101 patients have been recruited; (mean age 73.4 years, 62.4% females). The majority have a Clinical Frailty Score (CFS) of 4 (47.5%). Among the geriatric giants, 84.2% had cognitive impairment, 74.3% had recent falls, immobility (23.8%), incontinence (25.7%), and polypharmacy (68.3%). Common comorbidities include hypertension (84.2%), diabetes (75.3%), arthritis (54.5%), chronic pain (52.5%), renal impairment (18.8%), visual impairment (18.8%) and hearing impairment (13.9%). In terms of healthcare utilization, 81.2% undergo occupational therapy, 73.3% physiotherapy, 53.5% pharmacist, 18.8% dietary consultation, 17.8% Medical Social Worker (MSW), 10.9% psychologist, and 4.0% speech therapy. Subsequently, 43.6% were referred to the geriatric team for further management, 22.8% of patients required home visits, 11.9% cases required family conferences, 31.7% were given caregiver training, and 23.8% have liaised with (NGOs). There was 65.3% of patients maintained follow-up after CGA. Of these, there was a small increment of mean MBI from 84.98 (SD13.90) to 85.12 (SD16.57), but statistically not significant ( $p=0.823$ ).

**Conclusion :**

The model eases the process of identifying and managing geriatric syndrome presenting to primary and tertiary healthcare in a seamless manner. Even though MBI difference was not statistically significant after CGA, there was clinical improvement observed among many patients.

ID : P37

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**Title :**

Inhalation Sedation in Elderly with Dental Phobia: A Case Report

**Background :**

Inhalation sedation is a safe and effective sedation technique, used as a pharmacological behavioural management for dental patients at chairside. Dental phobia is common in dental settings as dental treatment may be a stressful event especially among elderly. An 84 years old, Chinese female with known case of hypertension and mild asthma was referred to us from government primary dental clinic due to dental phobia. According to referral, teeth extraction were attempted but patient was uncooperative and restless. She had no issues with dental treatments in the past but recently, started getting anxious during dental treatment. Referral was made to our team, Special Care Dentistry(SCD) for further management.

**Aim :**

In this case report, we are sharing the management of this patient using inhalation sedation as part of pharmacological behavioural management technique.

**Methodology :**

As part of the behaviour management technique, mandibular block was administered using computer assisted system for local anaesthesia instead of the normal syringe to minimise patient's phobia. However, patient was still anxious, therefore, we discussed with patient and obtained informed consent to proceed with inhalation sedation by delivering titrated nitrous oxide in oxygen. Inhalation sedation was administered using mixture of 40:60 nitrous oxide:oxygen concentration by the SCD specialist, at a flow rate of 5L/min. Patient's spO2 was 99% throughout the procedure. Procedure lasted for 20 minutes. Patient's vital signs were recorded.

**Results :**

All 3 teeth (teeth number 36,37 and 47) were extracted successfully with patient being in a calm and relax state. Postop, patient was well, showed no signs and symptoms. Her vitals were acceptable. Currently, she is under our follow up for denture fabrication.

**Conclusion :**

Inhalation sedation is a relatively safe pharmacological behavioural management technique that benefits patients by allowing them to remain conscious while allowing communication throughout procedure. It also has lesser side effects and less invasive compared to deep sedation/general anaesthesia. Adverse effects are avoidable through appropriate administration and competent training of dental professionals. Therefore, it is an option that can be considered for elderly who has dental phobia undergoing dental procedures.

ID : P38

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**Title :**

Development, validation and acceptance analysis of a multidomain intervention module for reversal of cognitive frailty

**Background :**

The rise in the population of aging group has been associated with an increased risk of mild cognitive impairment and frailty. Comprehensive multidomain intervention has been found to improve cognitive decline and reversing frailty in older adults.

**Aim :**

The aim of the present study is to develop and evaluate the content validity and acceptance of multidomain intervention module to reverse cognitive frailty among older adults (iAGELESS).

**Methodology :**

This study was conducted in two phases: Phase I was development of multidomain intervention module (nutrition, psychosocial, exercise, cognitive training and vascular risk management) and evaluation of content validity while Phase II was evaluation of acceptance among health and social care providers, older adults with cognitive frailty and caregivers. A content validity index (CVI) was used for quantification of content validity with a CVI of more than 0.79 is required before an item is accepted. Subjects completed a questionnaire which consisted of information on sociodemographic and questions to evaluate the acceptance of the module with respect to content, terminologies and graphics. Data were analysed descriptively.

**Results :**

A multidomain intervention module (nutrition, psychosocial, exercise, cognitive training and metabolic and vascular risk factors management) was developed. The module was found to have appropriate content validity (Overall CVI = 0.83). All the caregivers, 92 % older adults with cognitive frailty and 83% of health and social care providers were satisfied with the overall content of the module. About more than half of the caregivers, older adults with cognitive frailty and health and social care providers had given a satisfactory consensus on the ease of the terminologies, length of sentences, pictures, information, colour and font size included in the module.

**Conclusion :**

In conclusion, the module has a good content validity and a well-accepted multidomain intervention module, however, there is a need to determine its effectiveness in prevention of cognitive frailty among older adults.

ID : P39

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**Title :**

A Quasi-Experimental Study of a novel cognitive-physical digital intervention (ADL+) in at-risk community-dwelling older adults

**Background :**

Multi-domain approaches targeting cognitive health in older persons have potential to improve or maintain cognitive function, but studies show mixed results and are resource-intensive. Technology-based approaches may be a useful means of delivering cognitive training alongside lifestyle interventions, but limited data exists on the effectiveness of this approach.

**Aim :**

Thus, our study aims to assess the efficacy of ADL+, a novel digitalized toolkit for longitudinal cognitive monitoring, combining behavioural analytics with gamified cognitive training to provide personalized interventions plans including nutrition and physical activity components, for community-dwelling older adults at risk of cognitive decline.

**Methodology :**

In a quasi-experimental study we enrolled one hundred and fifty functionally-independent, community-dwelling older adults (71.2±5.5years) with subjective memory complaints (AD8≥2, no dementia) to a 6-month intervention with 3-month follow-up using ADL+ (N=75), or a control group (educational package). Outcomes included change in cognition measured using neuropsychological test battery (NTB) composite (attention, processing speed, memory and executive function) and domain Z-scores at baseline, 6-months and 9-months and quality-of-life using EuroQoL (EQ)-5D. Repeated-measures linear mixed-effects models was used to assess changes in mean scores from baseline between intervention and control, adjusted for baseline scores and covariates.

**Results :**

Participants in the control group were older (P=0.0012), frailer (P=0.012), with higher depressive symptoms (P=0.0087) and lower cognitive scores (P=0.0099) at baseline. After covariate adjustment, there was a significant beneficial effect of the intervention on NTB composite (between-group mean difference: improved by 0.20, 95% CI, 0.019-0.27; P=0.024), attention (0.25, 95% CI, 0.075-0.49; P=0.008), and processing speed (0.17, 95% CI, 0.10-0.41; P=0.001) at 6-months. Improvements in processing speed were sustained 3-months post-intervention, (0.73, 95% CI, 0.37-1.36; P=0.001). Significantly greater improvements in mean EQ-5D Visual Analogue Scale (VAS) were observed in the intervention compared to control group immediately post-intervention (4.05, 95% CI 0.23-7.90, P=0.038) and 3-months follow-up (5.12, 95% CI 0.81-9.43, P=0.02).

**Conclusion :**

Our findings support the potential efficacy of ADL+, a digital health-behaviour intervention to improve cognitive function and quality-of-life in older adults at risk of cognitive decline. Further studies incorporating a randomized design and examining the feasibility, acceptability and cost-effectiveness of this approach are required.



ID : P40

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**Title :**

Hypokalemia in elderly patients with severe COVID-19

**Background :**

Hypokalemia was frequent in COVID-19 patients. In severe COVID-19, it was greater than mild or moderate cases. Hypokalemia was associated with disease severity. Its impacts could be fatal especially in elderly. Several mechanisms of hypokalemia were assumed such as cytopathic effect of viral into respiratory, gastrointestinal and reno-tubular system. Anorexia related to illness, comorbidity and immunity also led to hypokalemia. These three factors above were characteristics of elderly patients. Therefore, hypokalemia might be more frequent in elderly than adult. Nevertheless, none study was investigated hypokalemia in elderly COVID-19 patients, especially in severe cases.

**Aim :**

Study aim were to investigate frequency of hypokalemia in elderly patients with severe cases of COVID-19 and frequency hypokalemia base on blood pressure, oxygen saturation, inflammatory cells and biochemical laboratory finding.

**Methodology :**

Observational study was conducted retrospectively at Semen Padang Hospital. Data was collected during January to December 2021 from electronic medical records. Subjects were found 32 patients of severe COVID-19 with age  $\geq 60$  years old. To describe frequency and degree of hypokalemia, frequency base on blood pressure, oxygen saturation, inflammatory cells and biochemical laboratory we included patients as subject if the patients had complete data.

**Results :**

Hypokalemia in elderly subjects with severe COVID-19 was found 65,6%. They were 28,1% in mild and moderate cases respectively. Only 9,4% cases were severe hypokalemia. In hypertension, desaturations, leukopenia, leukocytosis, neutrophilia, lymphopenia, monocytosis, low eGFR, hyponatremia and hyperglycemia subjects were found hypokalemia respectively 57,14%, 71,43%, 83,33%, 57,14%, 64%, 80%, 83,33%, 65,21%, 64,71% and 88,89%.

**Conclusion :**

More than half elderly patients with severe COVID-19 had hypokalemia with mild and moderate degree. Hypokalemia was found more frequent in subjects with hypertension, desaturation, leukopenia, neutrophilia, lymphopenia, monocytosis, low eGFR, hyponatremia and hyperglycemia.

ID : P41

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**Title :**

Healthcare Needs of Older Persons from Lower Socioeconomic-Status for the Development of the WE-RISET™ Intervention

**Background :**

Older persons from lower socioeconomic status are prone to poor health outcomes. This population are at higher risk of being frail and cognitively impaired. Prevention and potential reversal of cognitive frailty can be addressed with a multi-domain approach. Prior to the development of the WE-RISET™ intervention, a health needs assessment was conducted.

**Aim :**

To identify the unmet health needs for participation in health promotion program among older persons from lower socioeconomic status.

**Methodology :**

Health needs assessment was conducted among members and administrators of Pusat Aktiviti Warga Emas (PAWE) within Klang Valley based on World Health Organisation Community Health Needs Assessment guidelines.

**Results :**

Loneliness and lack of social support, restricted transport related ability, financial constraint and shyness were reported as the problems faced within the population. However, strong interest to participate in community-based interventions regularly was expressed if unmet needs were addressed. Key needs reported were facility and human resources, education and awareness, non-technological approach, easy access, sustainable, affordable, or complimentary as well as the need for social and group-based approach as factors to consider in the development of health promotion intervention.

**Conclusion :**

There is a demand for health promotion programs among older persons from lower socioeconomic status. Findings of the needs assessment led to the development of an accessible, sustainable, enjoyable and low cost WE-RISET™ intervention.

ID : P42

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**Title :**

Usage of Digital Technology Among Community dwelling Older Adults with Cognitive Frailty

**Background :**

The use of digital technology among older people is beneficial to facilitate or promote healthy ageing. However, there is inadequate information related to usage of digital technology among Malaysian community-dwelling older people with cognitive frailty.

**Aim :**

The purpose of this study was to determine the usage of digital technology usage among older adults with cognitive frail residing in the community. This includes evaluation of the presence of digital technology, internet access as well as their intention to use it.

**Methodology :**

This study obtained data from Ageless trial screening phase which was conducted from October 2021 till March 2022 in developing telehealth for multi-domain intervention. People who aged 60 years and above, able to communicate and living with community were included in this study. Data was obtained via interview that involved sociodemographic variables, Fried's criteria and Clinical Dementia Rating (CDR). A questionnaire that comprised the presence of digital technology, internet access and its intention was administered. Purposive sampling was conducted to select participants. The data was analysed descriptively.

**Results :**

Data was obtained from 476 older adults (67.71 years old  $\pm$  6.157) residing in Klang Valley and Rembau. Most of the participants were females (53.8%), from Malay ethnic group (85.7%), married (65.5%), attained secondary education level (51.2%) and retired (50.2%). Almost 60% were categorised to have cognitive frailty (55.7%). Majority of the older people with cognitive frailty were able to access internet in daily life via smartphone (87.9%), computers or laptops (6.5%) and tablets (5.6%). They also agreed that Internet could enhance their quality of life (68.0%) predominantly for interaction with family relatives (54.0%) and reading online news (24.5%). This population group utilised digital technology everyday but were not keen to have any games in their devices (87.1%).

**Conclusion :**

Our findings imply that the majority of older adults with cognitive frailty have adopted digital technology, even though primarily for family interaction and access to the latest news over the internet. Assistance and training of the use of digital technology for other intention as example health literacy, telehealth and mobile health may be beneficial among Malaysian community-dwelling older adults with cognitive-frailty. The design of online multi-domain intervention module should be more user-friendly and consisted of educational talk.

ID : P44

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**Title :**

Utilisation of Geriatric Dental Services and Treatment Provided in Special Care Dentistry During Pandemic

**Background :**

Oral health is an important component of health and quality of life in geriatric patients. Special Care Dentistry Clinic, Kuala Lumpur Hospital provides treatment to this ageing population with the support of a multidisciplinary team involving geriatricians and other allied health team.

**Aim :**

The aim of this study is to assess the utilisation of dental services and treatment provided for geriatric patients in SCD Clinic, Kuala Lumpur Hospital.

**Methodology :**

This is a 3-year retrospective record review. Utilisation of dental services and treatment provided for geriatric patients in Kuala Lumpur Hospital were assessed based on SCD Clinic return from year 2019 to 2021. Data recorded comprises patients age, gender, ethnicity, inpatient vs outpatient, SCD patient category and treatment provided.

**Results :**

Utilisation and dental treatment provided for geriatric patients in SCD clinic throughout the pre-pandemic and pandemic years of 2019 to 2021 are included. Preventative treatment (oral toilet, scaling, polishing and fluoride therapy) was the most common procedure undertaken, followed by restorative, prosthetics and other treatment.

**Conclusion :**

Oral health care in older people should be made as an integral part of health care. Information on utilisation is vital to ensuring adequate access to dental services for geriatric patients as well as informing other multidisciplinary teams in the healthcare setting.

ID : P45

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**Title :**

Where would you spend your old age?

**Background :**

Filial piety is some of the eastern culture that lives in Indonesia. One of its acts are shown by taking care of their parent when they are getting old. That's why a three-generation-under-one-roof concept is common in Indonesia. Parents are expected to guide and advice their children, and the children (and grandchildren) are supposed to take care of them in their daily routine. As time goes by and globalization sets in, there has been some shifting in Indonesian culture, including the decision where someone is going to spend their old age. When all their children are working and their grandchildren are at school for the day, the elderly tends to get lonely, uncomfortable feeling sets in for being a burden to their children and feels happier if they were able to do their own activities in their own home, even if it means being away from their children and grandchildren. That is why most of the elderly prefers to spend their old age in their own house be it with or without their spouse. Another alternative is choosing to stay in retirement house with other people their age.

**Aim :**

To look at the younger generation's perspective of the elderly and how they see themselves when they get older

**Methodology :**

We asked people aged between 20-59 years old through a google-form questioner. The questioner consist of 23 questions about the participant and their perspectives of the elderly. The participants were expected to fill the questioner from their own gadget.

**Results :**

From 93 participants, most of them were women (73.1%) and aged 40-49 years old (30.1%). About 80% were highly educated with the lowest education being bachelor degree and 95.7% was working. For most of the participants, the three-generation-under-one-roof concept was common (44.1%) and 47.3% thinks of the benefits in gaining different point of views about things in life from the elderly with this concept. 77.4% of the participants still believe that the most ideal place for someone in their old age is living with their children and grandchildren in their own house. In addition to that, should an elderly decided to live in the retirement house, the decision should be the elderly's own wish and is agreed upon the family (54.8%). Most of the participants have planned their future retirement house and 76.3% wishing to spend their old age with their spouse in their own house and stay there even if the apouse are no longer with them.

**Conclusion :**

This study showed that most of the women who were educated and still in productive age thinks that the ideal place for elderly to spend their old age is in their own house with their family and have planned to have the same future for themselves in their old age.

ID : P47

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**Title :**

Case Report: Acute Hip Fracture in elderly with severe Covid-19- What should we do?

**Background :**

The surges in Covid-19 pandemic especially the Delta wave in 2021 has overwhelmed healthcare systems worldwide including Malaysia. Evidence and perception of high mortality risk in Covid-19 patients (Michael P et al, 2021), severity of Covid-19 with complications, and lack of operating theatre during the peak for surge represent some of the massive barriers for hip fracture elderly to receive appropriate hip fracture care.

**Aim :**

This case report illustrates how we overcome the barriers in management of a patient with acute hip fracture and complicated medical issues in Covid-19

**Methodology :**

This case report illustrates how we overcome the barriers in management of a 72 year old lady with underlying hypertension and Clinical Frailty Scale (CFS) 4, admitted for severe Covid-19, who sustained left neck of femur fracture due to recurrent inpatient falls. She had Covid-19 category 4 complicated with moderate organising pneumonia (OP), superimposed Methicillin-sensitive Staphylococcus Aureus (MSSA) bacteremia secondary to hospital acquired pneumonia, Carbapenem-resistant Enterobacterales (CRE) in urine, and acute urinary retention.

**Results :**

She was taken over care to geriatric ward after completing isolation in a Covid ward. She was deemed unsuitable for surgical intervention in view of multiple acute medical issues and perceived high mortality risk of Covid-19 patient undergoing hip fracture surgery. Fall risk assessment and optimisation was done. Prolonged high dose and slow tapering of steroid likely contributed to secondary infection i.e., MSSA pneumonia and bacteremia, which was appropriately treated. Inappropriate insertion of CBD and unindicated urine culture test complicated the decision for corrective surgery due to urine culture result showing CRE organism, which we concluded as coloniser. We worked on faster tapering regime of her high dose steroid (for moderate OP) with pulmonologist as high dose steroid would predispose to unfavourable surgical outcomes. We adopted NHS and BOA pandemic guidelines. Exploration of patient's expectation, discussion of treatment options, and multidisciplinary meetings eventually led to corrective surgery for this patient at the peak of Delta wave.

**Conclusion :**

Our patient had an uneventful surgery and good functional recovery. This case highlighted possibility of any fragility fractures with severe Covid-19 and other complicated medical issues to receive optimal acute hip fracture care with evidence-based, multidisciplinary approach and astute management of concomitant medical issues.

ID : P48

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**Title :**

Analysis of key performance indicators of pilot orthogeriatric service in Queen Elizabeth Hospital (QEH), Malaysia

**Background :**

There has been rapid improvement in evidence-based care for hip fractures worldwide in which prompt, effective, multidisciplinary management has been shown to improve clinical outcomes and reduce healthcare costs. Orthogeriatric Service was initiated in February 2022 in QEH.

**Aim :**

This study aimed to analyse some important key performance indicators in our pilot orthogeriatric service in QEH.

**Methodology :**

This is a prospective cross-sectional study of hip fracture patients aged 60 and above, admitted from Feb to April 2022 and referred to geriatric unit. Clinical data such as patients' sociodemographic, fall circumstances, fractures, peri-operative details, complications, and mortality were extracted and analysed. Early surgery is defined as surgery within 72 hours of admission in our study.

**Results :**

19 patients with acute hip fracture were referred to geriatric unit, with a mean age of 77.5, female predominant (73.7%), majority Kadazan Dusun Murut (KDM) community (52.6%). Intertrochanteric fracture was most common (47.4%) followed by neck of femur fracture (26.3%). The rate of surgery was 84.2% and early surgery was 20%. The commonest complications were pneumonia, delirium and venous thromboembolism at 10.5% each. 94.4% of the patients had fall assessment and 100% received bone protection prior to discharge. However only 12.5% was mobilised within first 24 hours. Median length of stay was 16 days. Inpatient mortality was 10.5%.

**Conclusion :**

This study highlighted the room for improvement in early surgery, early mobilisation within 24 hours post-operatively. Further quality improvement projects are needed to reduce the rate of complications and mortality.



ID : P49

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**Title :**

Impact of Telemedicine Among Geriatric Patients at the Sarawak Heart Centre

**Background :**

This paper explored the impact of multi-disciplinary geriatric telemedicine services (TeleG) led by geriatricians at the Sarawak Heart Centre (SHC). The TELEG team comprised of geriatricians, medical officers, pharmacists, nurse, dietitian, physiotherapist and occupational therapist.

**Aim :**

To explore the impact of multi-disciplinary geriatric telemedicine services (TeleG) led by geriatricians at the Sarawak Heart Centre.

**Methodology :**

This cross-sectional survey was conducted from 1 July 2021 to 30 April 2022. The impacts of the TeleG were assessed in terms of optimization of medication therapy and treatment plan, and improved accessibility to healthcare services. All the data were retrieved from the medication notes. Thematic analysis was conducted to identify and quantify the interventions introduced by the TeleG team to optimize the medication therapy and treatment plan. The accessibility to healthcare services was quantified through the driving distance and time saved as measured by Google Earth Pro. The SPSS version 27 was used in data analysis, and p less than 0.05 was considered statistical significance.

**Results :**

A total of 149 geriatric patients agreed to participate in the study. The mean age of respondents was 78.8 ( 7.71), and most were female (59.7%). Most participants had a clinical frailty scale of 5 and above (91.3%). Through the TeleG, 92.3 % (n = 132) of them received medication therapy optimization with majority on dose adjustment (n = 59, 44.7%), deprescribing (n = 42, 31.8%) and prescribing (n = 21, 15.9%). Besides, 50.0% (n = 71) of them received treatment plan optimization with majority on referral for further treatment by physiotherapist/occupational therapist/dietitians (n = 24, 33.8%), further laboratory investigation (n = 21, 29.6%) and more frequent monitoring (n = 19, 26.8%). The average two ways driving distance saved

through TeleG was 46.6 kilometres (112.52), which accounted for an average of 127.0 minutes ( 68.38) time saved.

**Conclusion :**

The TeleG has been found to optimize the medication therapy and treatment plan. It also reduced the times and travel expenses needed to access the geriatric care services at SHC. The TeleG may complement the existing physical consultation to strengthen geriatric care further locally and regionally.

ID : P50

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**Title :**

Sociodemographic Influence on Cognitive Frailty among Older Adults from Low Socioeconomic Status

**Background :**

Cognitive frailty is a geriatric condition where there is simultaneous presence of mild cognitive impairment and physical frailty and influenced by a wide range factors including sociodemographic factors. However, little is known about the condition among older adults from low socioeconomic status (SES).

**Aim :**

This study aims to determine the influence of socioeconomic status on the occurrence of cognitive frail (CF) among older adults from low socioeconomic status.

**Methodology :**

A total of 1059 community dwelling older adult aged 60 years old and above were screened for their cognitive and physical health from April 2021 until March 2022. 877 participants from low SES were selected for analysis. Cognitive status assessed by Clinical Dementia Rating (CDR) and Fried's criteria. Sociodemographic factors being assessed were gender, race, educational level, history of dementia and head trauma, working and marital status, smoking and alcohol intake, living arrangement, as well as multimorbidities and polypharmacy issues.

**Results :**

The overall prevalence of CF among older adults from low SES was 8.3%, whilst PreCF affected 32.5% of the sample. Chi square analysis revealed significant association between gender ( $\chi^2(2) = 8.984, p=.011$ ), races ( $\chi^2(4) = 13.623, p=.009$ ), educational level ( $\chi^2(22) = 88.564, p=.000$ ), marital status ( $\chi^2(4) = 15.582, p=.004$ ), working status ( $\chi^2(2) = 10.397, p=.006$ ) as well as polypharmacy ( $\chi^2(2) = 12.508, p=.002$ ) and multimorbidities issues ( $\chi^2(2) = 10.883, p=.004$ ) with cognitive health of B40 participants

**Conclusion :**

Among low SES, CF was significantly prevalent among Malay female, with only primary school education, divorce or widowed, not working, and having multimorbidities without polypharmacy issue. There is a need to identify those high risk of CF early for appropriate intervention.

**ID :** P51

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**Title :**

A Preliminary Analysis Of Dementia Registry In Kota Kinabalu, Sabah: A Descriptive Study

**Background :**

Dementia is one of the major causes of disability, dependency and death among the older adults worldwide. Malaysia is a rapidly ageing nation, and the prevalence of dementia among older adults is estimated to be around 11% due to lack of data at national level. A 10 year dementia registry was initiated by geriatric unit of Queen Elizabeth Hospital, Kota Kinabalu.

**Aim :**

This study aims to do a preliminary analysis of the 63 dementia patients from dementia registry from 2019-2021.

**Methodology :**

There are 63 patients followed up in the outpatient geriatric clinic, Queen Elizabeth Hospital, Kota Kinabalu in the period of 2019 to 2020 currently registered in our dementia registry. In this descriptive study, we analysed sociodemographic parameters, and clinical data such as comorbidities, time between symptom onset to diagnosis, dementia subtypes, and type of dementia medication.

**Results :**

The mean age of our patients was 79 with a male predominance with 57% (36), majority being Chinese ethnicity 63% (40). Hypertension is the commonest comorbid 84% (53), followed by dyslipidemia 63% (50) and stroke 48% (30). The average time between symptom onset to diagnosis was 44 months, 44% were diagnosed with moderate dementia at the time of diagnosis Alzheimer's disease is the commonest dementia subtype with 41% cases (26), followed by 33% cases of vascular dementia (21) and 19% cases of mixed dementia (11). The most common anti-dementia drug prescribed was Memantine, 30% (19).

**Conclusion :**

Covid-19 pandemic has interrupted the progress of our dementia registry, which was restarted in 2022. The current data may not be representative due to the small number of patients at the moment. Continuation of this registry is important to provide important data among older adults with dementia in the future.

ID : P52

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**Title :**

A Survey On Knowledge And Attitude Among Doctors Towards Delirium In Medical Department Hospital Selayang

**Background :**

Delirium is common in hospitalised older adults. The prevalence is up to 50%, which can be higher in critical care settings. It is a transient decompensation of cerebral function due to one or more pathophysiological processes. Delirium comprises a spectrum of acute cognitive and behavioural decline. Evidence showed that delirium is strongly and independently associated with poor patient outcomes such as prolonged hospital stay, high mortality, increased risk for nosocomial infections, greater need for rehabilitation and institutionalisation after discharge. It is a preventable condition; however, many are missed and under-recognised.

**Aim :**

To evaluate knowledge and attitude on delirium among doctors in Medical Department, Hospital Selayang.

**Methodology :**

We conducted an anonymous online survey which consisted of three parts. Part one is capturing the demographic data, including designation and total years of experience as a doctor. The second part concerns the knowledge of diagnostic criteria, screening instruments, factors associated with delirium, management and outcome. The last part concerns the attitude of doctors towards the management of delirium.

**Results :**

One hundred twelve doctors completed the survey (N=112), consisting of medical officers (39%), house-officer (33%), specialists (23%) and consultants (5%). 70% of the respondents knew that the DSM-5 used for diagnostic criteria. However, 94% of them are aware that acute onset is an essential criteria for diagnosis. 84% agreed that fluctuation of the symptoms is also one of the criteria. However, only 68% aware about inattention. 67% were aware of CAM score compared to 43% to 4AT as a screening tools. More than 65% of doctors could identify polypharmacy, dehydration, urinary catheterisation, physical restrain and hypoglycaemia as precipitating factors of delirium. 30% of the respondents select pharmacological agent i.e. Benzodiazepines, as the first line treatment. There is no association ( $P>0.05$ ) between years of service experience with knowledge and delirium management. Only 48% of doctors have confidence in identifying, determining the cause and managing delirium.

**Conclusion :**

The survey highlighted the need for concerted and continual educational effort to improve the overall management of delirium among doctors.

ID : P53

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**Title :**

A Pilot Study to Determine Unmet Needs of Older Individuals Living in the Klang Valley during the COVID-19 Pandemic

**Background :**

The ability of older adults to attend outpatient appointments was severely curtailed during the COVID-19 pandemic, with potentially negative consequences to their health and well-being which has yet to be measured. Further lockdown measures have also limited social interaction and access to various services.

**Aim :**

A pilot study was conducted to determine whether the unmet needs of older persons' residing within the Klang Valley could be determined through telephone interviews during the COVID-19 pandemic.

**Methodology :**

Participants from the 'Promoting Independence in Seniors with Arthritis' (PISA) study were contacted. Unmet needs were identified using the Aged Care Technologies (ACT) Assessment Tool which comprised six domains with a total of 56 questions. Prior to the telephone-based interviews, the research team matched potential unmet needs to available local resources and solutions.

**Results :**

Thirty-nine participants, 80% women, mean age 69.8 years were contacted. 89.3% were independent in basic activities of daily living, 88% were able to get around independently, and 83.7% of the participants felt safe and were able to maintain their relationships; however, 55% were concerned about being a burden and having arguments with others. 90% had good accommodation and finances, 1% required financial assistance advice, and 25% were concerned about their mental health during the COVID-19 pandemic. 73% were able to stay healthy with regular exercise and regular health monitoring.

**Conclusion :**

Unmet needs of older adults could be established during telephone interviews and potential solutions offered immediately. A larger study should now be considered to measure and characterise the unmet needs of the older population in Malaysia in order to inform the development of services for older adults in the future.

ID : P54

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**Title :**

Functional Outcome Of Intensive In-Patient Rehabilitation For Stroke Patients

**Background :**

Stroke is a common cause of mortality and disability globally including Malaysia. Stroke rehabilitation plays an important role in post stroke care to reduce disability and mortality. Geriatric Rehabilitation Ward in Hospital Kuala Nerang was the first in-patient rehabilitation service established in Kedah state under cluster hospital project since November 2017. It received all adult patients regardless of age who required in-patient rehabilitation service, and vast majority of them were stroke patients.

**Aim :**

Analyse the functional outcome of stroke patients after receiving intensive in-patient rehabilitation program in Geriatric Rehabilitation Ward.

**Methodology :**

This was a retrospective cross sectional study, data collection was done via retrieving the medical records for all patients admitted from 1/1/2018 until 31/12/2019. Non-stroke patients were excluded from the data analysis. Modified Barthel Index (MBI) was used as the outcome measure for functional recovery. It was categorized into 4 categories which are total dependent (0-39), moderate dependent (40-59), mild dependent (60-79) and independent (80-100). R statistical software, Version 3.5.2 was used for data entry and analysis.

**Results :**

There were total of 85 stroke patients admitted during that study period, 7 cases had intra-cranial bleed, the rest were ischaemic stroke patients. The mean age was 65.7 years old, 62.4% were male, 88.2% were Malay. Upon admission 41.2% of the patients were total dependent, 51.8% were moderate dependent and 7.0% were mild dependent. After intensive in-patient rehabilitation program with median length of stay of 12 days, the total dependent group reduced to 15.3%, moderate dependent group reduced to 35.3%, mild dependent group increased to 43.5% and independent group increased from 0 to 5.9%. There were total of 57 cases (67.1%) achieved at least 1 category improvement. The mean MBI upon discharge (58.4) was significantly higher than mean MBI upon admission (40.7) with p value < 0.001. Age, gender, ethnicity, education level, Charlson morbidity index and severity of stroke did not show significant difference between those achieved at 1 category functional recovery compared to those did not achieve

**Conclusion :**

Intensive in-patient rehabilitation service helped 2/3 of the stroke patients to achieve at least 1 category of functional recovery regardless of age, gender, ethnicity, education level, co-morbidity and severity of stroke.



ID : P55

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**Title :**

Evidence-Based Diabetes Care in Older Adults ( $\geq 65$  years old): A survey of Attitudes and Practices Among Clinicians.

**Background :**

Diabetes is highly prevalent among older adults, with significant impact on healthcare provision. These patients are vulnerable to becoming frail and at risk of functional decline. Expert guidelines emphasize on holistic and patient-centred treatment, but implementation can be challenging.

**Aim :**

The objective of this study was to assess clinicians' attitudes and perception, knowledge, practices and confidence in relation to management of diabetes in older adults.

**Methodology :**

An online questionnaire was circulated nationwide using a messaging app. Eligible participants include clinicians (medical officers, specialists/consultants) from primary care facilities and hospitals. Data was analysed using descriptive statistics and regression analysis.

**Results :**

From the 411 respondents, the majority were medical officers (68.6%), worked in primary care (52.6%), had 5-10 years working experience (39.4%) and were non-geriatric/endocrinology specialists (94.4%). In terms of clinical exposure, more than half of respondents estimate that  $\geq 50\%$  of their diabetes patients were elderly. Most respondents adhere to current guidelines of 'start low, go slow' (96.8%), adjusting HbA1c targets based on frailty levels (87.6%) and less stringent glycaemic control (87.6%). Over 80% of clinicians feel that elderly diabetes patients are more difficult to change their lifestyle compared to younger patients. Most clinicians gave scores of 3 or 4 for each question related to practices during consultations (Likert scale, a score of 4 indicates "almost always"). In relation to knowledge about management of diabetes in older adults, most respondents were aware that metformin is the first-line treatment (95.4%), sulfonylureas should be avoided (86.9%), adequate calorie and protein is essential in frail patients (94.4%) and exercise improves falls rate and function (86.9%). However, only about 60% of respondents answered correctly about deintensification of insulin. Most clinicians scored 3 (Likert scale; a score of 4 denotes "very confident") with regards to confidence in identifying frailty and evidence-based management of diabetes in older adults, with clinical exposure and qualification being the only factors affecting confidence levels ( $p < 0.05$ ).

**Conclusion :**

Diabetes care in older adults can be challenging and clinicians must receive regular training on this complex topic. While the findings from this study indicate positive attitudes and practices among clinicians, further research is needed to see if this translates into better patient outcomes.

ID : P56

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**Title :**

Non-odontogenic problems among elderly in Klang Valley Sub-population

**Background :**

The elderly is at a higher risk to develop non-odontogenic problems (NOPs), such as oral mucosal lesions (OMLs) and non-odontogenic orofacial pain (NONP), due to their physiological changes, underlying systemic diseases and side effects of the medication prescribed. Their quality of lives will be affected since the roles of oral cavity as the main route for nutrients intake and communication are indisputable. This data is imperative for diagnosing and managing aged patients at instance intervention to prevent further complication.

**Aim :**

The study aims at determining the distribution of OMLs and NONP among elderly patients attending dental clinic, Universiti Sains Islam Malaysia (USIM).

**Methodology :**

This is a cross-sectional study using secondary data dental records of elderly patients aged 55 years old and above attending USIM's dental clinic from January 2020 to May 2022. The diagnosis of OMLs and NONP were made and confirmed by Oral Pathology and Oral Medicine Specialist based on WHO guidelines before recorded. Data were analysed by SPSS version 26.0.

**Results :**

There were 41 and 22 records of patients diagnosed with OMLs and NONP, respectively, with majority were among women (63.49%) and Malays (66.67%). Among 41 OMLs, 7 autoimmune cases with 4 oral lichen planus (OLP), 5 cancerous and precancerous lesions with 3 and 2 cases of oral cancer cell carcinoma and oral epithelial dysplasia, respectively, 11 ulcers including traumatic and secondary ulcer, 9 denture related problems- covering denture stomatitis, hyperplastic tissue and candidiasis, 6 keratotic lesions and salivary gland disorders recorded 3 patients. 20 elderly persons were diagnosed with burning mouth syndrome-either primary and secondary and 2 suffers from temporomandibular joint arthritis. With Chi square test showing  $p < 0.05$ , there are strong association between smoking and denture related problems, medication and moderate depression with burning mouth syndrome.

**Conclusion :**

NOPs are common among elderly and better understanding in the epidemiology studies in larger scale is fundamental to deliver better management and preventive measures.

ID : P57

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**Title :**

Impact of educational workshop on healthcare professionals' knowledge and confidence towards inpatient delirium care of older adults: A pre-test and post-test study

**Background :**

Delirium is prevalent among hospitalized older adults and may lead to loss of function and independence, institutionalization and death. Early identification and management are essential as most cases of delirium are preventable. Research exploring delirium education for health professionals in Malaysia remains sparse.

**Aim :**

The objective of this study was to evaluate the impact of a one-day workshop on knowledge and confidence related to inpatient delirium care of older adults among healthcare professionals in Malaysia.

**Methodology :**

The intervention was a one-day delirium workshop, delivered in May 2022, to forty-five healthcare professionals in Hospital Selayang, Malaysia. The workshop consists of short lectures and practical sessions. Participants completed a 25-item multiple choice knowledge questionnaire (MCKQ) and a four-item self-evaluation survey, before and after the workshop. Data were analyzed using descriptive statistics.

**Results :**

Forty-five participants answered the pre-test, but only twenty-six participants completed the post-test. The participants consist of medical nurses (68.9%), medical officers/housemen (13.3%), nurses from other departments (11.1%) and allied health practitioners (6.7%). Participants demonstrated improvement in knowledge as there is a statistically significant change ( $p < 0.05$ ) in proportion of participants scoring  $> 50\%$  of the test after the workshop (96.2%) compared to before the workshop (68.9%). The mean scores were 61% in the pretest and 76% in the pretest. There is also significant improvement in participants' self-evaluation of knowledge, where the majority of participants scored themselves as "poor" (30.8%) or "not sufficient" (57.7%) before the workshop and "excellent" (19.2%) or "good" (73.1%) after the workshop ( $p < 0.005$ ). Post intervention, participants appear to be more confident in identifying patients with delirium, identifying causes of delirium and managing delirium where all participants rated their confidence as either "excellent" or "good."

**Conclusion :**

This one-day workshop impacted positively upon knowledge and confidence of healthcare professionals towards delirium care in hospitalised older adults. Further research is needed to investigate whether such educational interventions translate into clinical practice.

**ID :** P58

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**Title :**

Perception of lifestyle changes among Older Adults with Frailty and Mild Cognitive Impairment: A Scoping Review

**Background :**

Lifestyle intervention has been proven its effectiveness in managing frailty and mild cognitive impairment issues among older adults. What remains unclear is how best to encourage lifestyle changes among older adults with frailty and Mild Cognitive Impairment (MCI).

**Aim :**

To identify the available evidence on the perspectives of older adults with frailty and MCI towards lifestyle interventions. Specifically, the purposes of this scoping review are to identify and map the motivations, barriers and preferences towards lifestyle intervention among older adults with frailty and MCI

**Methodology :**

An electronic literature search of PubMed, Scopus, Cochrane Reviews, ProQuest and grey resources were conducted to find articles published in English between January 2010 till October 2021. This review focused on research using qualitative study design. We extracted data on publication year, location, aim of study, study population, type of involved intervention, barriers, motivators and preferences reported in the articles.

**Results :**

Out of total 3718 articles, 141 articles were selected after title, abstract screening and deletion of duplicates. At the end of the review process, 9 articles were included for final analysis. The two main themes generated from this review are intrinsic and extrinsic factors in both facilitator and barriers towards lifestyle changes. The most reported facilitators were perceived benefits of lifestyle intervention and self-efficacy. Among the barriers faced by participants are perceived negative effect of intervention and lack of knowledge.

**Conclusion :**

Lifestyle changes facilitator and barriers among older adults were mostly intrinsic factors such as the perceived benefit of the intervention, self-efficacy, knowledge, familial commitment, and existing impairments. There is a need to empower older adults to overcome the barriers, with support from health care professionals, the community, and family.

ID : P59

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**Title :**

Outdoor Mobility And Transportation Patterns Among Older Adults In Klang Valley: Changed Since Covid-19 Pandemic?

**Background :**

Outdoor mobility is essential among older adults to enhance their social health quality of life and accessibility to essential services and facilities. While, having a variety of transportation choice assist outdoor mobility in older adults. However, there was a movement restriction during COVID-19 pandemic. The outdoor mobility and transportation patterns of older adults before and since COVID-19 pandemic in Klang Valley is not known

**Aim :**

To compare and determine outdoor mobility and transportation patterns of older adults before and since COVID-19 pandemic in Klang Valley.

**Methodology :**

In this cross-sectional study, data regarding outdoor mobility and transportation patterns of older adults before and since COVID-19 pandemic were collected through researcher-administered questionnaire. This questionnaire consisted of sociodemographic data, health status, mobility and transportation patterns.

**Results :**

A total of 136 older adults (mean age of  $67.43 \pm 4.91$ ) participated in this study. About 57% of the participants were categorised as having a change in outdoor mobility since COVID-19 pandemic in this study. A significant ( $p < 0.05$ ) change in outdoor mobility since COVID-19 pandemic was found among participants who were older ( $68.96 \pm 6.17$ ) compared to those who were younger in age ( $66.93 \pm 5.24$ ). Older adults who were using eye glasses also showed a significant change in outdoor mobility in comparison to those who were without eye glasses ( $p < 0.01$ ). The largest change in the travel frequency of older adults was to religious places (30%), followed by to the restaurants (19%). In regard to the types of transportation used before and since covid-19, largest change was demonstrated during visit to religious places where the use of private vehicle (as driver) increased from 58% to 66% since covid-19.

**Conclusion :**

"Our study findings showed that the most obvious change in the outdoor mobility and transportation patterns of older adults before and since COVID-19 pandemic in Klang Valley was decreased trips and increased use of private vehicle to religious places.

This study is funded by Ministry of Higher Education of Malaysia under the Konsortium Kecemerlangan Penyelidikan (KKP/2020/UPM-UKM/8/2)."

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**Title :**

Polypharmacy and Potentially Inappropriate Medications among Hospitalized Elderly with COVID-19, Hospital Sungai Buloh: A Preliminary Report

**Background :**

Pharmacist play an important role in detecting and preventing potentially inappropriate medications (PIM) which can increase physiological burden and drug interaction in older adults. During the COVID-19 pandemic, the increase in hospitalized patients necessitated reorganization of resources including pharmacy services.

**Aim :**

This study aims to determine the baseline prevalence of PIM among older adults with COVID-19.

**Methodology :**

Data were retrospectively collected for older adult age more than 60 years who were hospitalized due to COVID-19 between January to September 2021 in Hospital Sungai Buloh. PIMs were identified based upon the STOPP version 2 and Beers' criteria and prevalence was calculated. A descriptive analysis was performed.

**Results :**

The cohort included 230 older adults with a mean age 66.8 years (8.2), with 11.2% aged 75 years and above and 53% were males. Most had at least 2 or more comorbidities (75.6%), had no history of admission prior to this and were diagnosed with Category 3 COVID-19 or higher (77.4%). At admission, patients had an average of 4.4 (2.7) medications which increased to 4.9 (2.7) medications at discharge. Our review identified a total of 35 PIMs based upon the Beers criteria and 28 based upon the STOPP criteria. Presence of polypharmacy (5 or more medicine) on admission and discharge was significantly associated with PIM according to STOPP and Beers ( $p < 0.01$ ). The most common PIMs were associated with long term proton pump inhibitor and overuse of aspirin.

**Conclusion :**

There was high prevalence of polypharmacy and PIM use in older adults with polypharmacy both pre admission and on discharge. This suggest that interventions should be done to minimize this occurrence especially among the high risk patients to prevent harms.



ID : P61

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**Title :**

Symptoms severity & Physical Performance in Osteoarthritic (OA) Older People With & Without Diabetes

**Background :**

As prevalence of Diabetes Mellitus (DM) increases, the risk of Osteoarthritis (OA) also increased. However, there are lack of research in assessing how coexistence of both DM and OA are might affecting their physical performance compared to non-diabetic OA patients.

**Aim :**

To examine the impact of DM on individuals living with knee OA particularly on severity of pain symptoms and physical performance.

**Methodology :**

This study was a comparative cross-sectional study among Malaysian older adult population, who age 50 years and above, who diagnosed with knee osteoarthritis living in Kuala Lumpur and Selangor. Presence of OA and DM was based on self-reported physician diagnosed OA and DM respectively. In addition, clinical OA test using ACR knee criteria and glucose test were also conducted. Knee OA severity was assessed with Knee Osteoarthritis Outcome Score (KOOS). While physical and functional performance measured was Handgrip Strength Test, Timed Up and Go Test (TUG), 10 Meter Walk Test (10MWT), and 5 Times Sit to Stand (5STS) respectively.

**Results :**

A total of 201 older individuals, mean age 66 years (standard deviation 5.99) were recruited into this study. Eighty-two (40.8%) participants were classified as non-OA non-DM (OA-DM-), 28.36% had OA without DM (OA+DM-), 11.94% had DM without OA (OA-DM+), and 18.91% had both (OA+DM+). While there was no different between OA+DM- and OA+DM+ group in OA related symptoms, univariate linear regression analysis revealed that individuals with both DM and OA had the worse physical performances, HGS ( $\beta = -3.31 [-6.56, -0.55]$ ), 10MWT ( $\beta = -9.86 [-16.32, -3.39]$ ), TUGT ( $\beta = 3.20 [0.85, 5.54]$ ), and 5TST ( $\beta = 3.81 [1.72, 5.90]$ ). Under following adjustment for Body Mass Index (BMI), the significant association with handgrip strength attenuated and the rest remained.

**Conclusion :**

Our findings revealed that older people's physical performance was significantly impacted by having both DM and OA. The fact that they performed poorly despite having the same intensity of symptoms as those OA patients without DM is rather perplexing. In order to develop effective treatments for older population with OA and DM, future research should focus on understanding this condition.



ID : P62

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**Title :**

Coexisting of Diabetes Mellitus (DM) worsens Psychological Status and Social participation in older people with Osteoarthritis (OA)

**Background :**

As the prevalence of diabetes rises, so does the risk of osteoarthritis (OA). It has been demonstrated that diabetes mellitus (DM) is strongly linked to OA due to the alteration of joint metabolism. The pathophysiology of diabetes-induced osteoarthritis has remained unknown in recent years. There are few studies investigate the effects of OA towards psychological status and social participation, yet limited study had further elaborated the impact of DM on OA patient towards social participation and psychological status.

**Aim :**

to examine the impact of DM on OA patient's social participations and psychological status.

**Methodology :**

This study is a comparative, cross-sectional study for OA with and without DM participants who are Malaysia, aged 50 years and above, and living with caregivers or alone at home and living at Klang Valley area from Hospital Canselor Tuanku Muhriz (HCTM) Universiti Kebangsaan Malaysia primary clinic (KPPC), Orthopedic clinic, geriatric clinic in Cheras, Kuala Lumpur and participants from community dwelling older adults living in Klang Valley area were selected to participate in this study. A face-to-face interview which includes Knee Injury and Osteoarthritis Outcome Score (KOOS), Lubben Social Network Scale (LSNS-6), Keels Assessment of Participation (KAP) and Depression, Anxiety and Stress Scale (DASS-21) were conducted.

**Results :**

Among 201 participants with the mean age is 66, there is no significant differences on psychological and social participation regardless of OA and DM status. However sub-group analysis revealed that correlation analysis between OA symptoms severity and psychological and social participation were only significant among those with DM but not in those without DM.

**Conclusion :**

Our results shown that increased OA symptom severity among people with knee OA and DM significantly affects their psychological state and social participation. It's interesting to note that this pattern didn't exist among those without DM, emphasizing the significance of comprehending the underlying mechanisms through which coexisting DM may decrease quality of life in older people with OA.

ID : P63

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**Title :**

Overview of hip fracture management in tertiary hospital in Johor, Malaysia

**Background :**

Hip fracture, as most common fragility fracture in older people, is projected to increase at the highest rate in Malaysia over the coming decades due to ageing population. This alarming projection data with known devastating impacts of hip fracture prompt urgent action.

**Aim :**

This study is to evaluate the care given for fragility hip fracture in a tertiary hospital in Johor, Malaysia.

**Methodology :**

This cross sectional retrospective study included patients aged  $\geq 60$  years old admitted to Orthopaedic Ward with hip fractures from June 2019 to December 2019. Analysis was done on electronic health records on patient characteristics, approach of treatment for patient, key time points for treatment and hospital outcomes.

**Results :**

A total of 58 patients were included. The mean age was  $77 \pm 9$  with number of comorbid illnesses at mean of  $3 \pm 2$ . One fifth of the study population were semi-dependant in daily living pre-fracture. Majority of hip fractures were intertrochanteric (49%) and neck of femur (48%) while only 3% were subtrochanteric. The mean waiting time for admission from ED to ward was  $7.4 \pm 3.4$  hours, where only 34% of admissions admitted to the orthopaedic ward within 4 hours. Less than half of hip fracture patients underwent surgery with median time to surgery at 17 days (10, 27). No fall assessment was done for all patients. Total of 79% patients being reviewed by physiotherapist preoperatively while 93% postoperatively, but records of early postoperative mobilization were not available. None were reviewed by occupational therapist perioperatively. Bone health assessment only being done for 42% of patients. Median length of stay was 14 days (7, 17), with a 30-day mortality of 12%.

**Conclusion :**

This study demonstrated huge gaps between acute hip fracture care provided in tertiary hospital in Johor and the recommended care standards. Orthogeriatric care, which incorporates elements of multidisciplinary approach could potentially fill in the gaps.

ID : P64

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Mohd Shawal Firdaus Mohamad, Faculty of Dentistry, Universiti Teknologi MARA, Malaysia

**Title :**

Exploring Barriers Of Oral Health Care In Nursing Home – A Qualitative Pilot Study

**Background :**

Elderly population are known to have poor oral health status and elderly living in nursing home has higher risk in developing oral diseases. This may be due to poor general health condition among elderly in nursing homes as most of them are frail, dependent and require assistant in daily activities including oral hygiene maintenance. Hence, the role of workers in nursing homes is utmost important to ensure oral hygiene maintenance of the elderly. However, there are barriers and enablers in providing oral health care for the elderly living in nursing homes

**Aim :**

This study explored the barriers and enablers faced by nursing home managers to establish oral health care protocol for the residents in nursing homes.

**Methodology :**

The study design was a descriptive, cross-sectional study conducted via face-to-face interviews to explore the availability and implementation of the current protocol in each centre. A purposive sampling of 5 nursing home managers working in a private nursing home was selected for this study. This study used a semi-structured questionnaire as a study instrument. The data collected from this study were transcribed using verbatim transcription and were analysed using thematic analysis involving open and closed coding following an emerging theme.

**Results :**

All five managers agreed that there is no structured program available for the residents and workers on oral health training and care. The training in oral health received by the workers is informal. The barriers can be categorised into two main themes 1) residents' perspective and 2) workers' perspective. Four sub-themes emerged from the main themes: physical limitations, restricted movements, uncooperative and aggressive behaviours and lack of knowledge of proper oral care.

**Conclusion :**

There are no specific guidelines for the nursing homes in the management of oral health care for the residents. Identifying the barriers the workers face will help create practical oral health care guidelines for the elderly in the nursing home.

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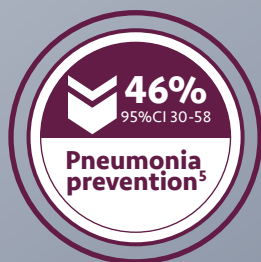


Unvaccinated older people have **high influenza-associated hospitalisation rates** of 55.6 per 10,000 individuals.<sup>3</sup>



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- **Space-saving and eco-friendly packaging<sup>10</sup>**
- **Sanofi Pasteur is a world leader in the research and development of influenza vaccines<sup>11</sup>**

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**REFERENCES:** 1. Centers for Disease Control and Prevention. Flu and people 65 years and older. Available at: <https://www.cdc.gov/flu/highrisk/65over.htm>. Accessed on 20 August 2021. 2. Malaysian Influenza Working Group. Position paper on influenza vaccination in the elderly. Available at: <https://msgm.com.my/pdf/SFAI-Position-Paper.pdf>. Accessed on 20 August 2021. 3. Wong PL, et al. The effects of age on clinical characteristics, hospitalization and mortality of patients with influenza-related illness at a tertiary care centre in Malaysia. *Influenza Other Respi Viruses*. 2020;14:286-93. 4. World Health Organization. Influenza (seasonal) fact sheets. Available at: [https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal)). Accessed on 25 August 2021. 5. Lang P, et al. Effectiveness of influenza vaccine in aging and older adults: comprehensive analysis of the evidence. *Clin Interv Aging*. 2012;7:55-64. 6. Udell JA, et al. Association between influenza vaccination and cardiovascular outcomes in high-risk patients: a meta-analysis. *JAMA*. 2013;310(16):1711-1720. 7. VaxigripTetra® Malaysia prescribing information. Date of revision: January 2021. 8. Sesay S, et al. Safety, immunogenicity, and lot-to-lot consistency of a split-virion quadrivalent influenza vaccine in younger and older adults: A phase III randomized, double-blind clinical trial. *Hum Vaccin Immunother*. 2018;14(3):596-608. 9. Gresset- Bourgeois V, et al. Quadrivalent inactivated influenza vaccine (VaxigripTetra™). *Expert Rev Vaccines*. 2018;17(1):1-11. 10. Sanofi Pasteur. Compact box. 11. Sanofi Press Release. Sanofi invests €170 million in new vaccine production facility in France. Available at: <https://www.sanofi.com/-/media/Project/One-Sanofi-Web/Websites/Global/Sanofi-COM/Home/media-room/press-releases/2017/2017-10-12-07-00-00-1144755-en.pdf>. Accessed on 19 August 2021.



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**REFERENCES:** 1. Patel MR, et al. N Engl J Med. 2011;365:883-891. 2. Bansilal S, et al. Am Heart J. 2015;170:675-682.e8. 3. Yao X, et al. J Am Coll Cardiol. 2017;70:2621-2632. 4. Bonnemeyer H, et al. Comparative safety and effectiveness of non-vitamin K oral anticoagulants vs phenprocoumon in patients with non-valvular atrial fibrillation and renal disease – results from the RELOAD Study. ESCO 2019, 22-24 May, Milan, Italy. Abstract AS25-066. <https://journals.sagepub.com/doi/full/10.1177/2396987319845581>. 5. Xarelto® (rivaroxaban). Summary of Product Characteristics.

**PRESCRIBING INFORMATION** Brand name of product Xarelto Film-Coated Tablets 10mg, 15mg & 20mg. **Approved name of the active ingredient** Each film-coated tablet contains either 10 mg, 15mg or 20mg of rivaroxaban. **Indication** Xarelto 10mg is indicated for prevention of venous thromboembolism (VTE) in adult patients undergoing elective hip or knee replacement surgery. Xarelto 15mg & 20mg is indicated for the prevention of stroke and systemic embolism in adult patients with nonvalvular atrial fibrillation with one or more risk factors, such as congestive heart failure, hypertension, age ≥ 75 years, diabetes mellitus, prior stroke or transient ischaemic attack. Treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE), and prevention of recurrent DVT and PE in adults. **Dosage and method of administration:** **Prevention of VTE in hip or knee replacement surgery:** The recommended dose of XARELTO is a 10 mg tablet taken once daily, with or without food. The duration of treatment depends on the type of orthopaedic surgery. The initial dose should be taken within 610 hours after surgery provided that hemostasis has been established. **Prevention of stroke and systemic embolism:** The recommended dose is 20 mg once daily, which is also the recommended maximum dose. In patients with moderate or severe renal impairment the recommended dose is 15 mg once daily. **Treatment of DVT and PE and prevention of recurrent DVT and PE:** The recommended dose for the initial treatment of acute DVT or PE is 15 mg twice daily for the first three weeks followed by 20 mg once daily for the continued treatment and prevention of recurrent DVT and PE. A reduction of the dose from 20 mg once daily to 15 mg once daily should be considered if the patient's assessed risk for bleeding outweighs the risk for recurrent DVT and PE. **Contraindications:** XARELTO is contraindicated in patients with hypersensitivity to rivaroxaban or any excipient; with clinically significant active bleeding; hepatic disease which is associated with coagulopathy and clinically relevant bleeding risk including cirrhotic patients with Child Pugh B and C. XARELTO is contraindicated in pregnant and in breast-feeding women for all strengths, or any lesion or condition if considered to be a significant risk of major bleeding; concomitant treatment with any other anticoagulant agent except under the circumstances of switching anticoagulant therapy or when UFH is given at doses necessary to maintain an open central venous or arterial catheter. **Special warnings and special precautions for use (10mg):** Concomitant medication: Xarelto is not recommended in patients receiving concomitant systemic treatment with azole-antimycotics or HIV protease inhibitors which may lead to an increased bleeding risk. **Renal impairment:** Xarelto is to be used with caution in patients with moderate renal impairment (CrCl: <50-30 mL/min) receiving co-medications leading to increased rivaroxaban plasma concentrations. Xarelto should be used with caution in patients with CrCl <30 mL/min. No clinical data are available for patients with severe renal impairment (CrCl <15 mL/min). Therefore use of Xarelto is not recommended in these patients. **Hemorrhagic Risk:** Xarelto should be used with caution in patients with an increased bleeding risk such as congenital or acquired bleeding disorders, uncontrolled severe arterial hypertension, current or recent gastrointestinal ulcerations, other gastrointestinal disease without active ulceration that can potentially lead to bleeding complications, recent intracranial hemorrhage, intraspinal or intracerebral vascular abnormalities, recent brain, spinal or ophthalmological surgery, vascular retinopathy, and bronchiectasis or history of pulmonary bleeding. **Epidural/spinal anesthesia or puncture:** An epidural catheter should not be withdrawn earlier than 18 hours after the last administration of Xarelto. Xarelto should be administered at earliest 6 hours after the removal of the catheter. If traumatic puncture occurs the administration of Xarelto should be delayed for 24 hours. **Surgery and interventional:** If an invasive procedure or surgical intervention is required, Xarelto should be stopped at least 24 hours before the intervention, if possible. Xarelto should be restarted as soon as possible after the invasive procedure or surgical intervention provided the clinical situation allows and adequate hemostasis has been established. **Women of child bearing potential:** Women of child bearing potential should avoid becoming pregnant during treatment with rivaroxaban. **Dermatological reactions:** Serious skin reactions, including Stevens-Johnson syndrome/Toxic Epidermal Necrolysis, have been reported during post-marketing surveillance. **Special warnings and special precautions for use (15 & 20mg):** **Haemorrhagic risk:** As with other anticoagulants, patients taking Xarelto are to be carefully observed for signs of bleeding. It is recommended to be used with caution in conditions with increased risk of haemorrhage. Xarelto administration should be discontinued if severe haemorrhage occurs. **Patients with non-valvular atrial fibrillation who undergo PCI (percutaneous coronary intervention) with stent placement:** There is limited experience of a reduced dose of 15 mg Xarelto once daily for patients with moderate renal impairment [creatinine clearance 30 – 49 mL/min] in addition to a P2Y12 inhibitor for a maximum of 12 months in patients with non-valvular atrial fibrillation who require oral anticoagulation and undergo PCI with stent placement. **Renal impairment:** Xarelto is to be used with caution in patients with creatinine clearance 15 – 29 mL/min. Use is not recommended in patients with creatinine clearance < 15 mL/min. **Interaction with other medicinal products:** The use of Xarelto is not recommended in patients receiving concomitant systemic treatment with azole-antimycotics or HIV protease inhibitors. Care is to be taken if patients are treated concomitantly with medicinal products affecting haemostasis. **Patients with prosthetic valves:** Treatment with Xarelto is not recommended for these patients. **Haemodynamically unstable PE patients or patients who require thrombolysis or pulmonary embolectomy:** Xarelto is not recommended as an alternative to unfractionated heparin in patients with pulmonary embolism who are haemodynamically unstable or may receive thrombolysis or pulmonary embolectomy. **Spinal/epidural anaesthesia or puncture:** Prior to neuraxial intervention the physician should consider the potential benefit versus the risk in anticoagulated patients or in patients to be anticoagulated for thromboprophylaxis. For the removal of an epidural catheter at least 18 hours in young patients and 26 hours in elderly patients should elapse after the last administration of rivaroxaban. Following removal of the catheter, at least 6 hours should elapse before the next rivaroxaban dose is administered. If traumatic puncture occurs the administration of rivaroxaban is to be delayed for 24 hours. **Dosing recommendations before and after invasive procedures and surgical intervention:** Xarelto should be stopped at least 24 hours before an invasive procedure or surgical intervention. Xarelto should be restarted as soon as possible after the invasive procedure or surgical intervention provided the clinical situation allows and adequate haemostasis has been established. **Information about excipients:** Xarelto contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicinal product. **Women of childbearing potential:** Women of child bearing potential should avoid becoming pregnant during treatment with rivaroxaban. **Elderly population:** Increasing age may increase haemorrhagic risk. **Dermatological reactions:** Serious skin reactions, including Stevens-Johnson syndrome/Toxic Epidermal Necrolysis, have been reported during post-marketing surveillance. **Undesirable effects:** Common adverse drug reactions reported include: **Blood and the lymphatic system disorders:** Anemia; **Nervous system disorders:** Dizziness, headache; **Eye disorders:** Eye hemorrhage; **Vascular disorders:** Hypotension, hematoma; **Respiratory, thoracic and mediastinal disorders:** Epistaxis, hemoptysis; **Gastrointestinal disorders:** Gingival bleeding, nausea, gastrointestinal tract hemorrhage, gastrointestinal and abdominal pains, dyspepsia, nausea, constipation, diarrhea, vomiting; **Skin and subcutaneous tissue disorders:** Pruritus, rash, ecchymosis, cutaneous and subcutaneous hemorrhage; **Musculoskeletal, connective tissue and bone disorders:** Pain in extremity; **Renal and urinary disorders:** Urogenital tract hemorrhage, renal impairment; **General disorders and administration site conditions:** Fever, peripheral oedema, decreased general strength and energy; **Investigations:** Increase in transaminases; **Injury, poisoning and postprocedural complications:** Postprocedural hemorrhage, contusion, wound secretion. **For further prescribing information, please contact** Bayer Co. (M) Sdn Bhd, B-19-1 & B-19-2, The Ascent Paradigm, No. 1, Jalan SS 7/26A, Kelana Jaya, 47301 Petaling Jaya, Selangor. Subject to medical prescription. **Date of text revision** 13.2.2018.

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**References:** 1. McMurray et al. *Eur Heart J*, 2010;33:1787-847. 2. Heidenreich et al. *JACC*, 2022;79(17):e263-e421. 3. McDonald et al. *Can J Cardiol*, 2021;37(4):531-546. 4. ENTRESTO® Summary of Product Characteristics, April 2022.

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<sup>1</sup> Berton, et al. 2015. PLoS ONE 10(11):e01417757. Doi:10.1371/journal.pone.0141757. \*When taken twice daily and consumed along with regular exercise.

\* Gombart et al. Nutrients 2020; 12:236. Ensure® Gold™ contains protein, vitamin A, B6, B12, C, D, E, folate and selenium, copper, zinc and iron that help support immune function.

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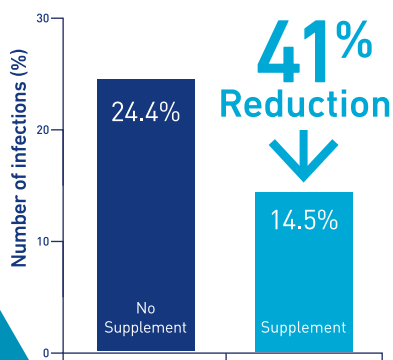
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↑  
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↑  
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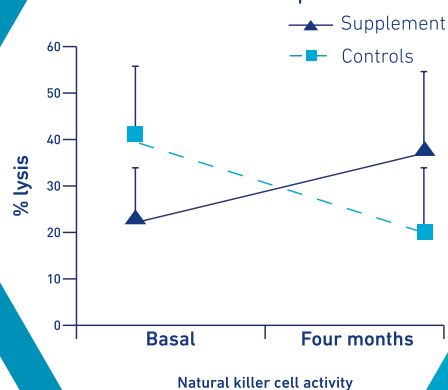
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**NUTREN® OPTIMUM** may be recommended to substitute meals or supplement portions of meals

**References:** 1. Bunout D et al. *JPEN* 2004; 28(5):348–354. 2. Abizanda P, et al. *J Am Med Dir Assoc*. 2015; 16(5): 439.e9–439.e16. 3. Yen CH, et al. Compliance, Tolerance and Acceptability of a Nutritional Formula Designed for Older Adults. Abstract Poster. Presented at: 20th IAGG World Congress of Gerontology and Geriatrics 2013, South Korea

\*Results were derived from a nutritional supplement that is similar in composition as 2 servings of **NUTREN® OPTIMUM**

FOR HEALTHCARE PROFESSIONAL ONLY

Nestlé Products Sdn. Bhd. (197901000966) Petaling Jaya, Selangor.







HELP YOUR PATIENTS WITH OAB

# BENEFIT FROM TREATMENT WITH BETA-3 AGONISTS



Beta-3 agonists such as BETMIGA™ can help avoid the side-effects of antimuscarinics while providing optimal symptom relief



OAB, overactive bladder; QoL, quality of life.

**References** : 1. Nitti VW, et al. J Urol. 2013;189:1388-1395. 2. Kelleher C, et al. European urology. 2018;74(3):324-333. 3. Chapple C, et al. European urology. 2015;67(1):11-4. 4. Drake MJ, et al. European urology. 2016;70(1):136-45. 5. Lozano-Ortega G, et al. Drugs Aging. 2020;37:801-816. 6. Nazir J, et al. Pharmacoecoon Open. 2017;1:25-36. 7. Kato D, et al. Low Urin Tract Symptoms. 2019;11:O152-O161. 8. Soda T, et al. NeuroUrol Urodyn. 2020;39:2527-2534. 9. Andersson KE, et al. Ther Adv Urol. 2018;10:243-256. 10. Chapple CR, et al. Int Urogynecol J. 2013;24:1447-1458. 11. Freeman R, et al. Curr Med Res Opin. 2018;34:785-793.

## BETMIGA ABBREVIATED PRESCRIBING INFORMATION

**Presentation:** Prolonged-release tablets containing 25 mg or 50 mg mirabegron. Indication: Symptomatic treatment of urgency, increased micturition frequency and/or urgency incontinence as may occur in adult patients with overactive bladder (OAB) syndrome. **Dosage:** Adults 18 years and above (including elderly patients): The recommended starting dose is 25 mg once daily with or without food. Betmiga 25mg is effective within 8 weeks. Based on individual patient efficacy and tolerability the dose may be increased to 50 mg once daily. **Renal and hepatic impairment patients:** No dose adjustment is necessary in patients with mild to moderate renal impairment. In patients with severe renal impairment, the recommended dose is 25 mg dose once daily. No dose adjustment is necessary in patients with mild hepatic impairment (Child-Pugh Class A). In patients with moderate hepatic impairment (Child-Pugh Class B) the recommended dose is 25 mg once daily. **Renal impairment patient with strong CYP3A inhibitors:** Mild to moderate renal impairment 25 mg once daily. Severe renal impairment not recommended. **Hepatic impairment patient with strong CYP3A inhibitors:** Mild hepatic impairment (Child-Pugh Class A) 25 mg once daily. Moderate hepatic impairment (Child-Pugh Class B) not recommended. **Method of Administration:** Betmiga is to be taken once daily, with liquids, swallowed whole and is not to be chewed, divided, or crushed. **Contraindication:** Hypersensitivity to the active substance or to any of the excipients listed in section list of excipients. Severe uncontrolled hypertension defined as systolic blood pressure 2180 mm Hg and/or diastolic blood pressure 2110 mm Hg. **Special Precautions:** **Renal impairment:** Betmiga has not been studied in patients with end stage renal disease (GFR <15 mL/min/1.73 m or patients requiring haemodialysis) and therefore, it is not recommended for use in this patient population. Data are limited in patients with severe renal impairment (GFR 15 to 29 mL/min/1.73m) based on a pharmacokinetic study (see full prescribing information) a dose reduction to 25 mg is recommended in this population. Betmiga is not recommended for use in patients with severe renal impairment (GFR 15 to 29 mL/min/1.73m) concomitantly receiving strong CYP3A inhibitors (see full prescribing information). **Hepatic impairment:** Betmiga has not been studied in patients with severe hepatic impairment (Child-Pugh Class C) and therefore, it is not recommended for use in this patient population. Betmiga is not recommended for use in patients with moderate hepatic impairment (Child-Pugh Class B) concomitantly receiving strong CYP3A inhibitors (see full prescribing information). **Increases in Blood Pressure:** Mirabegron can increase blood pressure. Blood pressure should be measured at baseline and periodically during treatment with Betmiga, especially hypertensive patients. Data are limited in patients with stage 2 hypertension systolic blood pressure 2160 mm Hg or diastolic blood pressure 2100 mm Hg). In two, randomized, placebo controlled, healthy volunteer studies, Betmiga was associated with dose related increases in supine blood pressure. In these studies at the maximum recommended dose of 60 mg, the mean maximum increase in systolic diastolic blood pressure was approximately 3.5/1.5 mmHg greater than placebo. In contrast, in OAB patients in clinical trials, the mean increase in systolic and diastolic blood pressure at the maximum recommended dose of 50 mg was approximately 0.5-1 mmHg greater than placebo. Worsening of preexisting hypertension was reported in frequently in Betmiga patients. **Patients with congenital or acquired QT prolongation:** Betmiga, at therapeutic doses, has not demonstrated clinically relevant QT prolongation in clinical studies (see full prescribing information). However, since patients with a known history of QT prolongation or patients who are taking medicinal products known to prolong the QT interval were not included in these studies, the effects of mirabegron in these patients is unknown. Caution should be exercised when administering mirabegron in these patients. **Patients with bladder outlet obstruction and patients taking antimuscarinic medications for OAB:** Urinary retention in patients with bladder outlet obstruction (BOO) and in patients taking antimuscarinic medications for the treatment of OAB has been reported in post-marketing experience in patients taking mirabegron. A controlled clinical safety study in patients with BOO did not demonstrate increased urinary retention in patients treated with Betmiga, however, Betmiga should be administered with caution to patients with clinically significant BOO. Betmiga should also be administered with caution to patients taking antimuscarinic medications for the treatment of OAB. **Interactions:** Inhibitory effect on the metabolism of CYP2D6 substrates. Betmiga is a moderate and time-dependent inhibitor of CYP2D6 and weak inhibitor of CYP3A. Increased AUC in the presence of the strong inhibitor of CYP3A4-gp ketoconazole. Caution if co-administered with medicines with a narrow therapeutic index and significantly metabolised by CYP2D6. When initiating in combination with digoxin the lowest dose for digoxin should be prescribed and serum digoxin should be monitored. **Undesirable Effects: Summary of the safety profile:** The safety of Betmiga was evaluated in 8433 patients with OAB, of which 5648 received at least one dose of mirabegron in the phase 2/3 clinical program, and 622 patients received Betmiga for at least 1 year (365 days). In the three 12-week phase 3 double blind, placebo controlled studies, 88% of the patients completed treatment with Betmiga, and 4% of the patients discontinued due to adverse events. Most adverse reactions were mild to moderate in severity. The most common adverse reactions reported for patients treated with Betmiga 50 mg during the three 12-week phase 3 double blind, placebo controlled studies are tachycardia and urinary tract infections. The frequency of tachycardia was 1.2% in patients receiving Betmiga 50 mg. Tachycardia led to discontinuation in 0.1% patients receiving Betmiga 50 mg. The frequency of urinary tract infections was 2.9% in patients receiving Betmiga 50 mg. Urinary tract infections led to discontinuation in none of the patients receiving Betmiga 50 mg. Serious adverse reactions included atrial fibrillation (0.2%). Adverse reactions observed during the 1-year long term active controlled (muscarinic antagonist) study were similar in type and severity to those observed in the three 12-week phase 3 double blind, placebo controlled studies. **Tabulated list of adverse reactions:** The table below reflects the adverse reactions observed with mirabegron in the three 12-week phase 3 double blind, placebo controlled studies. The frequency of adverse reactions is defined as follows: very common (≥1/10); common (≥1/100 to <1/10); uncommon (≥1/1,000 to <1/100); rare (≥1/10,000 to <1/1,000); very rare (<1/10,000). Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness. **Infections and infestations:** Common Urinary tract infection: Uncommon: Vaginal infection Cystitis **Psychiatric disorders:** Not known: Insomnia observed during post-marketing experience. **Eye disorders:** Rare: Eyelid oedema. **Cardiac disorders:** Common: Tachycardia: Uncommon: Palpitation, Atrial fibrillation. **Vascular disorders:** Very rare: Hypertensive crisis (observed during post-marketing experience). **Gastrointestinal disorders:** Common: Nausea (observed during post-marketing experience), Constipation observed during post-marketing experience), Diarrhoea observed during post-marketing experience); Uncommon: Dyspepsia, Gastritis, Rare: Lip oedema. **Skin and subcutaneous tissue disorders:** Uncommon: Urticaria, Rash, Rash macular, Rash papular, Pruritus, Rare: Leukocytoclastic vasculitis, Purpura Angioedema (observed during post-marketing experience). **Musculoskeletal and connective tissue disorders:** Uncommon: Joint swelling, Reproductive system and breast disorders: Uncommon Vulvovaginal pruritus. **Investigations:** Common Blood pressure increased, GGT increased, AST increased, ALT increased. **Renal and urinary disorders:** Rare: Urinary retention (observed during post-marketing experience). **Nervous system disorders:** Common: Headache (observed during post-marketing experience), Dizziness (observed during post-marketing experience). Packs: 30 prolonged-release tablets of 25 mg, 50 mg. API date: 29 Jan 2018



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AMY-RFT-202206-08

Dear Healthcare Professionals,

**Mood and behavioural symptoms (e.g., apathy, anxiety, and agitation) are very common in Alzheimer disease, affecting up to 80% of a typical clinical population.<sup>1</sup>**

In the presence of these symptoms, normal functioning deteriorates, and quality of life is reduced, both for the patient and the caregiver.<sup>1</sup>

As severity increases, these symptoms can add to caregiver distress and often lead to institutionalisation of the patient.<sup>1</sup>

**Exelon<sup>®</sup> Patch/Rivastigmine helps to improve the symptoms of mood and behaviour, particularly with respect to the symptoms of attention, apathy, anxiety, and agitation while reducing caregiver burden from EXACT study.<sup>1</sup>**

In EXACT<sup>1</sup>, 50% of AD patients on EXELON<sup>®</sup> experienced improvements in attention, anxiety, apathy and agitation<sup>1</sup>

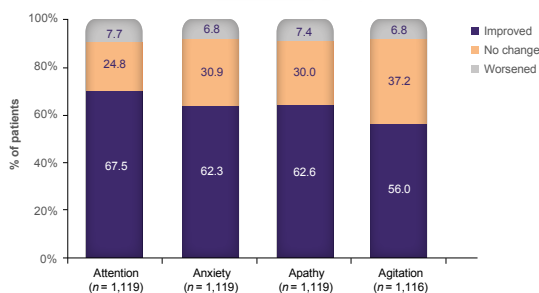


Figure 1: Percentage (%) patients' improvement

At 6 months 4X caregivers reported a reduced burden than an increased burden<sup>5</sup> (40.3% vs. 10.3%)

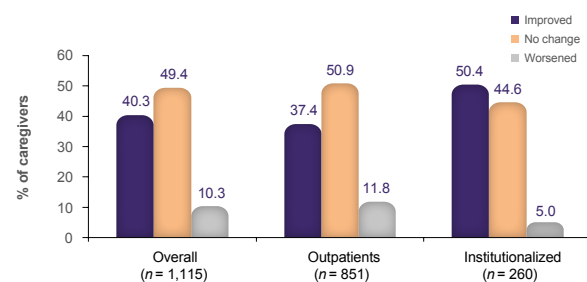


Figure 2: Percentage (%) improvement on caregiver burden

**EXACT** – A naturalistic, multicentre, observational study that investigated the impact of 6-month EXELON<sup>®</sup> therapy on behavioural symptoms in 2,119 patients with mild to moderate Alzheimer's disease (AD).



For further details on Prescribing,  
Scan here or click here

#### Reference:

1. Gauthier S. et. al. EXACT: rivastigmine improves the high prevalence of attention deficits and mood and behaviour symptoms in Alzheimer's Disease. Int J Clin Pract 2007; 61(6):886-895



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