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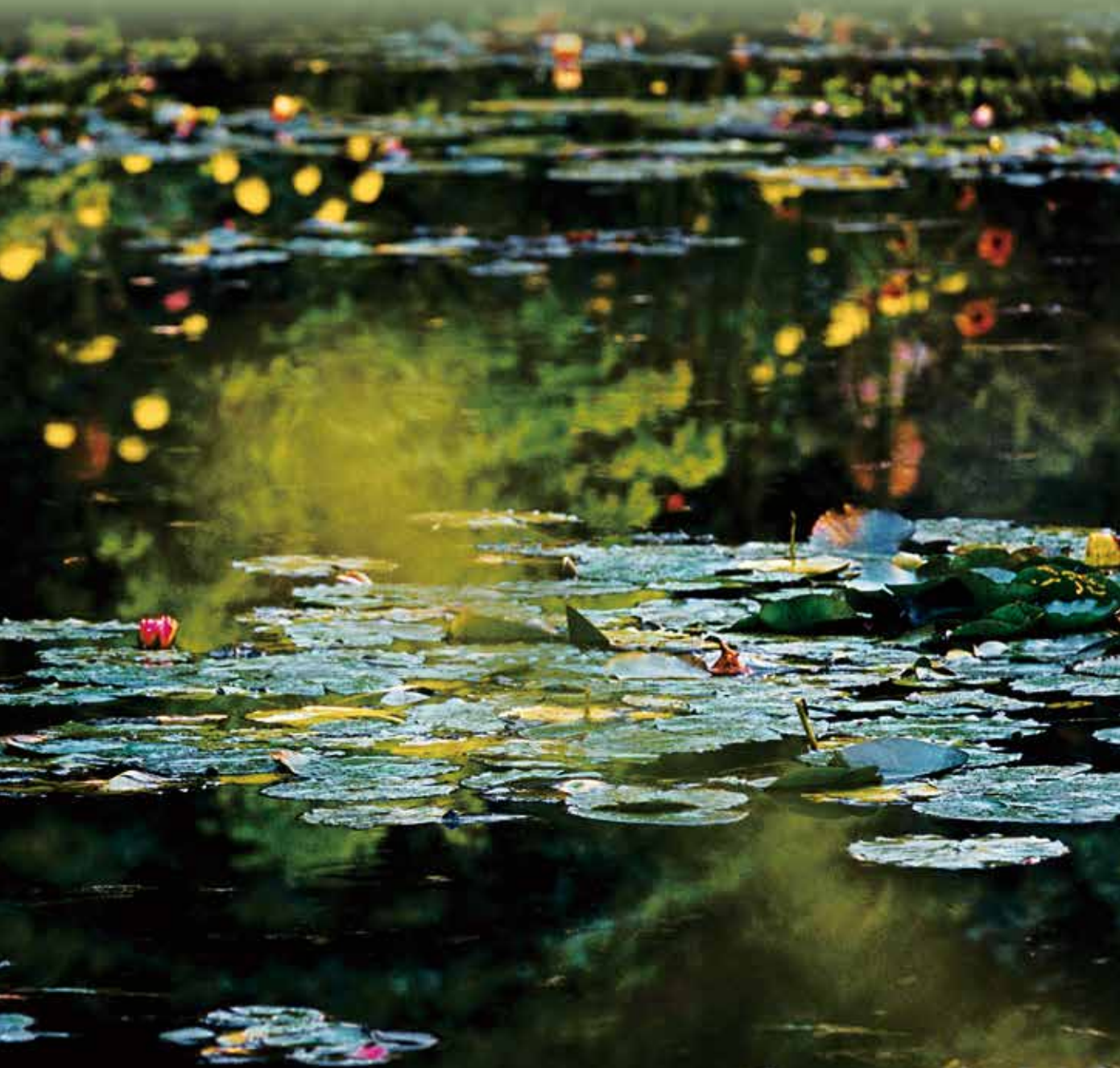
Geriatrics



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References: 1. AC Grant, et al. J Aerosol Med Pulm Drug Deliv. 2015 Dec 1; 28(6): 474-485. **2.** Siler TM, et al. PLoS ONE. 2022 17(8): e0273170.

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Contents

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The Cover Shot

In 1873 Claude Monet painted and exhibited his Sunrise. He was the first painter to depart from the traditional painting format and pioneered his "impressionist" style in his work. At the time, it was most controversial but subsequently accepted as one of the most important styles of painting promulgated by Van Gogh and Rembrandt.

This photo is an impressionistic photograph of the Lily Pond in Monet Garden in Givenchy Paris, which is known as The Sistine Chapel of Impressionism.

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Care for Our Older Citizens in an Ageing World: From Primary Prevention to Advanced Diseases

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Dr Raymond SK LO

The learned readers of our Medical Diary need no reminding of the importance of geriatrics care in the ageing, aged or super-aged societies that global citizens are now living in. Every health and social care system in the world is facing the challenges of an ageing population. Care for older adults has much evolved from the days when Dr Ignatz Nascher first coined the term Geriatrics in 1909 in New York,[1] and when Dr Marjory Warren first promulgated geriatric care in 1936 at the workhouses of West Middlesex, London.[2] The term Geriatrics is derived from the Greek word "Geras", which in Greek mythology refers to an old shriveled man who represents the spirit of old age. In the modern days of 21st century, ageing is no longer a term equivalent to inevitable senility and frailty. Positive and healthy ageing is a goal that is being increasingly realised.

Professor Bernard Issacs from Glasgow and Birmingham of United Kingdom, first introduced the expression of "geriatrics giants" in 1965.[3] The term encompassed the prevalent and burdensome syndromes of **4** "**I**"s: intellectual impairment, incontinence, immobility, and instability with falls. Iatrogenic complication was the fifth "I" which was also emphasised. New “giants” emerged over the years, with the syndromes of frailty, sarcopenia, anorexia of ageing, and cognitive impairment being much researched and attended to.

The core competencies of geriatric medicine have recently been defined with a simple construct of Geriatric **5 M**s: mind, mobility, medications, multi-complexity, and matters most.[4] Matters most refers to the pertinent target of making sure that an older individual’s personally meaningful health outcomes, goals and care preferences are reflected in treatment plans. This is very much parallel to the approach of palliative medicine too, as written by Dame Cicely Saunders, mother of Hospice Care in 1979: "You matter because you are you, and you matter to the end of your life. We will do all we can not only to help you die peacefully, but also to live until you die." Patient-centric treatment and care planning indeed should be applied to all stages of diseases across all ages.[5]

While palliative medicine should be offered right from the moment of diagnosis of an incurable disease if there is a need, preparation for healthy ageing should similarly commence early, rather than at an arbitrary age of 60 or 65. Preventive geriatrics is crucial for active ageing, in order to preserve function, maintain independence, and ensure quality of life. Prevention can be categorised into primary, secondary and tertiary levels. The elderly is of a heterogeneous population, hence a patient-centric approach should be adopted for tailor-made prevention strategies in different older individuals. Health is determined by social determinants, and risk reduction with any preventive strategies require behavioural change. The **5** "**A**" s in behavioural modification for prevention geriatric medicine are advocated as follows: assess patients’ behavioural risk factors and modifiable lifestyle factors; advise patients about modifiable risk factors in clear, straight forward directions; agree with patients on a plan as to how to alter lifestyle or behaviours; assist patients to reach their goals; and arrange follow up contacts and strategies.[6] A comprehensive geriatric approach in prevention is as important as a comprehensive geriatric assessment of symptoms and diseases.

In this issue on Geriatrics, we have a range of articles giving a concise overview on the aspects above, for the benefit of specialists and non-specialists alike. Professor Jean Woo updated us with the guidelines from an Asian Consensus Group on nutritional health of older adults, with recommendations on screening and management. Professor Timothy Kwok outlined the latest advances in knowledge on mild cognitive impairment as a prodrome to dementia, hoping to manage this giant of geriatric diseases early with delaying or even reversal of decline. Dr CW Wong summarised the comprehensive geriatric approach to diabetes, a very common comorbid illness in the multi-complexity of diseases in old age, with a focus on secondary and tertiary prevention of complications. Moving to advanced stages of diseases in old age, Professor Sarah Lee and Professor Linda Lam reviewed the management of behavioural and psychological symptoms of dementia, and I contributed an article on overcoming the barriers in advance care planning, in identifying what matters most to our older patients.

Dr Donald Li, Chairman of the Elderly Commission, kindly shared with us in the interview article of this issue, his insights and invaluable recommendations for future directions of elderly care. We are also most grateful for the exquisite and aesthetic cover photo furnished by Professor Richard Yu. Finally, thanks must also be given to Dr LY Chong for providing us with an educational dermatology quiz.

Public may view the escalating ageing issue that the world is facing as a silver tsunami, yet there can be positive effects of tsunamis too. With concerted efforts, our professionals will face the challenges with betterment of the care of older fellow citizens.

References

1. Nascher IL. Geriatrics: the diseases of old age and their treatment. New York Medical Journal1909; Aug 21: 358-9.
2. Warren MW. Care of the chronic sick: a case for treating chronic sick in blocks in a general hospital. British Medical Journal 1943;2:822-823
3. Issacs B. An introduction to Geriatrics: London: Balliere: Tindall & Cassell; 1965
4. Tinetti M, Huang A, Molnar F. The Geriatrics 5M's: A New Way of Communicating What We Do. Journal of the American Geriatrics Society 2017;65(9):2115-2115.
5. Saunders C. The management of terminal disease. vol 1; Mosby Elsevier Health Science 1979
6. Roth ME. Putting prevention into geriatrics. Program and abstracts of the American Academy of Family Physicians 2002 Scientific Assembly; Oct 16-20 2002; San Diego, California. Session 370

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Diagnosis and Management of Mild Cognitive Impairment

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INTRODUCTION

Mild cognitive impairment (MCI) encompasses a wide range of cognitive complaints including memory, planning, orientation etc., which are not serious enough to affect normal daily functioning. Amnesic MCI with impairment in short term memory, is the commonest subtype which may represent the early stages of Alzheimer disease. On the other hand, non-amnesic MCI subtype involves impairment in complex planning, language, reasoning, more than in memory. The potential causes include Lewy body dementia, cerebrovascular disease, frontotemporal dementia etc.

CLINICAL DIAGNOSIS

MCI patients are understandably concerned about their dementia risk, and often have anxiety depressive symptoms. They should be carefully assessed and followed up. The diagnosis is primarily based on history, preferably corroborated by someone close to the patients. Anxiety, depression and sleep problems should be specifically enquired about. Cardiovascular risk factors contribute significantly to MCI and should be carefully looked for. Clinical examination may reveal signs of Parkinsonism or cerebrovascular disease. Cognitive test such as Montreal cognitive assessment (MOCA) provides an estimate of the severity of cognitive impairment and the domains of deficits. A local study suggested the cutoff value of 21/22 for MCI[1], but one should be aware of the limitations of cognitive tests in older people with low education.

Obstructive sleep apnoea (OSA) and REM sleep disorder are associated with MCI. OSA is associated with small vessel disease and increased stroke risk. It can now be conveniently screened for by a finger wearable. REM sleep disorder may respond to melatonin. If it remains problematic, low dose clonazepam is effective.

People with MCI are at risk of falls and fractures. History of falls should be enquired about and fall risk assessed by timed up and go test.[2] Osteoporosis screening by dual energy X ray absorptiometry and drug treatment for osteoporosis helps to reduce the risk of disabling fractures such as hip fracture.

There is no diagnostic test, but it is advisable to screen for diabetes mellitus and vitamin B12 deficiency. CT brain or MRI of brain is not routinely indicated. But hippocampal or medial temporal atrophy on MRI is suggestive of more significant AD and is predictive of cognitive decline.

MANAGEMENT

There is no recognised drug treatment for MCI. Acetylcholinesterase inhibitor has no significant effect on cognitive function or delay onset of AD.[3] It is important to look out for drug non-adherence in older people with MCI because of poor memory. Dietary problems are common in older people with MCI as poor diet predisposes to MCI and cognitive impairment may limit and alter food choices and appetite. In the later phase of MCI, apathy may set in and lead to significant reduction in physical and social activity. Family caregivers should be encouraged to take a more proactive role in supervising drug adherence, encouraging healthy diet, physical and social activity.

Cognitive training in small groups may improve cognitive function. It is especially useful in those with lower education.[4] But cognitive training has a ceiling effect[5] and memory which is more affected by AD is difficult to improve. A common problem with cognitive training is that its effect is domain specific and may not translate into global cognitive functioning. Training in dual tasking may have more significant effect on global cognitive function, and reduce fall risk.[6] Online cognitive training games allow people with MCI to practice at home on a daily basis and well designed games may improve adherence. A randomised trial showed that online cognitive training games were effective in improving cognitive function in older people with MCI.[7]

Physical exercise programmes improve cognitive function in people with MCI and aerobic exercise has been shown to increase the size of hippocampus in non-demented older people.[8] Mind body exercise may have more specific cognitive effect. A local randomissed trial should that Tai chi improved memory in those who could learn it.[9]

A landmark randomised trial showed that the combination of optimal control of medical problems, e.g. hypertension and diabetes mellitus, physical exercise, Mediterranean diet and cognitive training was effective in improving cognitive function in older people with MCI.[10] In real life, lifestyle modification is difficult to implement, especially in the presence of cognitive impairment. Regular group counseling adopting the chronic disease management model may motivate people with MCI to achieve more long term changes in their lifestyle.[11]

Nutritional supplements may play a role in managing MCI especially that dietary interventions are not feasible or effective. AD is consistently associated with elevated plasma homocysteine which is neurotoxic. Trials of B vitamins (vitamin B_{12}, folic acid and vitamin B_6) to lower homocysteine have shown variable results. In one of the few positive trials, B vitamins were effective in

slowing brain atrophy in people with MCI.[12] Subsequent subgroup analysis showed that the B vitamins were only effective in those with high serum omega 3. It is possible that B vitamins facilitates the active transport of omega 3 over the blood brain barrier.[13] A local trial of low dose folic acid and vitamin B_{12} showed non-significant cognitive effect over two years. Interestingly, a negative interaction effect of concomitant use of aspirin was found.[14] In addition, B vitamins appeared to be effective only in those with normal gene for dihydrofolate reductase which is essential to the metabolism of folic acid into active folate.[15] This suggested that more active forms of folate e.g. folinic acid or methylfolate may be more effective than folic acid. More trials of the more optimal doses and forms of B vitamins for MCI are warranted.

A medical food which combines over ten nutritional factors including omega 3 and B vitamins was effective in improving memory in MCI patients over six months. It promotes brain functional connectivity by improving synaptic function.[16] Medium chain triglyceride induces mild ketosis and has been shown to improve cognitive function in MCI.[17] Its use may be limited by gastric intolerance and mild increase in LDL.

There is some evidence that transcranial direct current stimulation (TDCS) improves cognitive function in older people with MCI.[18] There is some evidence that TDCS enhances neuroplasticity in the short term.[19] Applying TDCS before cognitive training can confer additional benefits. Transcranial magnetic stimulation (TMS) can reach the brain much better than TDCS, though there is a small risk of epileptic fit. Its effect on depression is well established. There is also some evidence that TMS can also improve cognitive function in older people with MCI.[20]

There has been recent development of antibodies against beta amyloid. Two formulations have gained FDA approval in early AD. They are effective in clearing beta amyloid in brain and improved cognitive function marginally in early AD patients. This may play a role in those with more advanced MCI and proven AD. The current gold standard test for AD is amyloid PET scan, though a protein based test has been shown to be excellent accuracy for AD diagnosis.[21] The two amyloid antibodies require infusion once every two to four weeks and may induce amyloid related imaging abnormalities (ARIA) which probably represent vasogenic oedema and microhaemorrhages. Although they were mostly asymptomatic and resolved when the antibody was stopped, a small number of related deaths have occurred during the trials. Close monitoring by serial MRI is therefore required. Notably, ARIA was less common among those without APOE4 allele. APOE genotyping is therefore recommended before initiating this therapy.[22] Although this approach may be disease modifying, its use in the foreseeable future is limited by the high costs and the risk of ARIA.

SUMMARY

MCI is the prodromal stage of dementia, especially AD. Mediterranean diet, physical exercise, cognitive training with or without TDCS, and optimal control of vascular risk factors can improve cognitive function and may delay the onset of dementia. Nutritional supplements may play a role, but randomised clinical trials are needed to establish their efficacy and safety. Periodic review is required to monitor cognitive function and lifestyle modifications.

References

1. Yeung PY, Wong LLL, Chan CC, Yung CY, Leung LMJ, Tam YY, Tang LN, Li HS, Lau ML (2020) Montreal Cognitive Assessment — Single Cutoff Achieves Screening Purpose. Neuropsychiatric Disease and Treatment 16: 2681–2687
2. Hong Kong Health Bureau (2022). Hong Kong Reference Framework for Preventive Care for Older Adults in Primary Care Settings - Module on Falls in Elderly. Hong Kong Health Bureau, https://www.healthbureau.gov.hk/pho/rfs/english/reference_framework/two_page_summary.html (Accessed 13 June 2023)
3. Russ TC, Morling JR (2012) Cholinesterase inhibitors for mild cognitive impairment. Cochrane Database of Systematic Review 9: CD009132. https://doi.org/10.1002/14651858.CD009132.pub2. (Accessed 13 June 2023)
4. Kwok TCY, Bai X, Li JC, Ho FK, Lee TM (2013) Effectiveness of cognitive training in Chinese older people with subjective cognitive complaints: a randomized placebo-controlled trial. International Journal of Geriatric Psychiatry 28(2) :208-15
5. Kwok TCY, Chau WW, Yuen KSL, Wong AYM, Li JCY, Shiu RYY, Ho FKY (2011) Who would benefit from memory training? A pilot study examining the ceiling effect of concurrent cognitive stimulation. Clinical Interventions in Aging 6:83-88
6. Ali N, Tian H, Thabane L, Ma J, Wu H, Zhong Q, Gao Y, Sun C, Zhu Y, Wang T (2022) The Effects of Dual-Task Training on Cognitive and Physical Functions in Older Adults with Cognitive Impairment; A Systematic Review and Meta-Analysis. Journal of Prevention of Alzheimer's Disease 9(2):359-370
7. Yu R, Leung G, Woo J (2021) Randomized Controlled Trial on the Effects of a Combined Intervention of Computerized Cognitive Training Preceded by Physical Exercise for Improving Frailty Status and Cognitive Function in Older Adults. International Journal of Environmental Ressearch and Public Health 18(4):1396.
8. Erickson KI, Voss MW, Prakash RS, Basak C, Szabo A, Chaddock L, Kim JS, Heo S, Alves H, White SM, Wojcicki TR, Mailey E, Vieira VJ, Martin SA, Pence BD, Woods JA, McAuley E, Kramer AF. (2011) Exercise Training Increases Size of Hippocampus and Improves Memory. Proceedings of the National Academy of Sciences of the United States of America, 108(7), 3017-3022.
9. Lam LC, Chau RC, Wong BM, Fung AW, Tam CW, Leung GT, Kwok TCY, Leung TY, Ng SP, Chan WM (2012). A 1-year randomized controlled trial comparing mind body exercise (Tai Chi) with stretching and toning exercise on cognitive function in older Chinese adults at risk of cognitive decline. Journal of the American Medical Directors Association. 13(6):568.e15-20
10. Ngandu T, Lehtisalo J, Solomon A, Levälahti E, Ahtiluoto S, Antikainen R, Bäckman L, Hänninen T, Jula A, Laatikainen T, Lindström J, Mangialasche F, Paajanen T, Pajala S, Peltonen M, Rauramaa R, Stigsdotter-Neely A, Strandberg T, Tuomilehto J, Soininen H, Kivipelto M. (2015) A 2 year multidomain intervention of diet, exercise, cognitive training, and vascular risk monitoring versus control to prevent cognitive decline in at-risk elderly people (FINGER): a randomised controlled trial. Lancet 385(9984):2255-63.
11. Wong CW, O WTW, Wong KWS, Ma R, Hui E, Kwok TCY. (2020). Randomized trial of a patient empowerment and cognitive training program for older people with diabetes mellitus and cognitive impairment. Geriatrics & Gerontology International. 20(12):1164-1170
12. Smith AD, Smith SM, de Jager CA, Whitbread P, Johnston C, Agacinski G, Oulhaj A, Bradley KM, Jacoby R, Refsum H. (2010) Homocysteine-lowering by B vitamins slows the rate of accelerated brain atrophy in mild cognitive impairment: a randomized controlled trial. PLoS One. 5(9):e12244.
13. Oulhaj A, Jernerén F, Refsum H, Smith AD, de Jager CA (2016). Omega-3 Fatty Acid Status Enhances the Prevention of Cognitive Decline by B Vitamins in Mild Cognitive Impairment. J Alzheimers Dis. 50(2):547-57
14. Kwok TCY, Wu Y, Lee J, Lee R, Yung CY, Choi G, Lee V, Harrison J, Lam L, Mok V. (2020). A randomized placebo-controlled trial of using B vitamins to prevent cognitive decline in older mild cognitive impairment patients. Clinical Nutrition. 39(8):2399-2405
15. Wu Y, Smith AD, Bastani NE, Refsum H, Kwok TCY. (2022). The dihydrofolate reductase 19-bp deletion modifies the beneficial effect of B-vitamin therapy in mild cognitive impairment: pooled study of two randomized placebo-controlled trials. Human Molecular Genetics. 31(7):1151-1158
16. Scheltens P, Twisk JW, Blesa R, Scarpini E, von Arnim CA, Bongers A, Harrison J, Swinkels SH, Stam CJ, de Waal H, Wurtman RJ, Wieggers RL, Vellas B, Kamphuis PJ. (2012) Efficacy of Souvenaid in mild Alzheimer's disease: results from a randomized, controlled trial. Journal of Alzheimer's Disease 31(1):225-36.
17. Sun L, Ye KX, Wong HLK, Wang L, Lim SL, Chao YX, Zhang C, Yap KZ, Feng L. (2023) The Effects of Medium Chain Triglyceride for Alzheimer's Disease Related Cognitive Impairment: A Systematic Review and Meta-Analysis. J Alzheimer's Disease. doi: 10.3233/JAD-230406. (Epub ahead of print).
18. Chen J, Wang Z, Chen Q, Fu Y, Zheng K (2022). Transcranial Direct Current Stimulation Enhances Cognitive Function in Patients with Mild Cognitive Impairment and Early/Mid Alzheimer's Disease: A Systematic Review and Meta-Analysis. Brain Science. 12(5):562.
19. Frase L, Mertens L, Krahl A, Bhatia K, Feige B, Heinrich SP, Vestring S, Nissen C, Domschke K, Bach M, Normann C. Transcranial direct current stimulation induces long-term potentiation-like plasticity in the human visual cortex (2021). Transcranial direct current stimulation induces long-term potentiation-like plasticity in the human visual cortex. Translational psychiatry 11(1), 17.
20. Zhang X, Lan X, Chen C, Ren H, Guo Y (2021) Effects of Repetitive Transcranial Magnetic Stimulation in Patients With Mild Cognitive Impairment: A Meta-Analysis of Randomized Controlled Trials. Frontiers in human neuroscience 15:723715.
21. Jiang Y, Zhou X, Ip FC, Chan P, Chen Y, Lai NCH, Cheung K, Lo RMN, Tong EPS, Wong BWY, Chan ALT, Mok VCT, Kwok TCY, Mok KY, Hardy J, Zetterberg H, Fu AKY, Ip NY. (2022). Large-scale plasma proteomic profiling identifies a high-performance biomarker panel for Alzheimer's disease screening and staging. Alzheimer's & Dementia. 18(1):88-102
22. Cummings J (2023) Anti-Amyloid Monoclonal Antibodies are Transformative Treatments that Redefine Alzheimer's Disease Therapeutics. Drugs 83(7): 569-576

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Nutrition and Muscle Health in Community - dwelling Older Adults

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INTRODUCTION

With ageing, there is an increased prevalence of under nutrition or malnutrition, as well as loss of muscle mass and function. The former is multi factorial, covering social and environmental factors that reduce food intake, illnesses and drugs that reduce appetite, anorexia of ageing, as well as reduced gut absorption of nutrients and uptake by organs (anabolic resistance). The latter is described as sarcopenia, originally given to the phenomenon of age-related loss in muscle mass adversely affecting various physical performance measures and predisposing to falls. At the same time, loss of skeletal muscle reduces glucose uptake, predisposing to insulin resistance. Therefore it has functional as well as metabolic implications. Sarcopenia is included in the ICD-10 code M62.84. Since Hong Kong has a rapidly ageing population, with the longest total life expectancy at birth for both men and women, all healthcare professionals should be competent in recognising the problems and management strategies.

RELATIONSHIP BETWEEN NUTRITION AND MUSCLE HEALTH

Maintenance of muscle mass is dependent on optimising nutritional requirements, in the same way that athletes build and maintain their bodies. Sufficient calories and macronutrients (in particular protein), as well as micronutrients such as vitamin D, and certain amino acids, are important. Nutrition forms one of two key pillars in the management of sarcopenia, together with resistance exercise. What are the current evidence based recommendations for nutrition in muscle health for Asia? An Asian Consensus Group was established to carry out a literature review of Asian studies in community-dwelling older adults aged 60 years and over from 2016 to 2021 and to provide a guideline on this topic.[1] A summary is provided in the following paragraphs.

SCREENING

The prevalence of undernutrition or malnutrition among community-dwelling older adults was noted to range from 16 to 73 %, and was an important risk factor for sarcopenia and its consequences. Behavioural, social and environmental factors are important contributory factors for suboptimal nutritional status. Therefore, screening for malnutrition in the community is recommended, using quick validated tools which can be followed by more in depth assessment if abnormal. The MNA-SF[2] had been widely used, and consisted of only six items, with sensitivities of 82 - 100 % and specificities of 74 - 97 % in Asia. Annual screening is recommended as part of routine health screening.

MANAGEMENT

Those with low body mass index (< 18.5 kg/kg), unintentional weight loss, low muscle mass or poor muscle strength should be assessed for malnutrition, and referred for treatment when indicated. Optimising the social environment, such as communal eating, helps to promote food intake. Dietary advice should be provided by healthcare professionals. The Consensus group recommends a protein intake of at least 1.0 g/kg body weight for healthy older adults, increased to 1.2 g/kg for those with sarcopenia or frailty, to be provided by the ordinary diet. Protein supplementation will be needed if this is not possible. Other dietary supplements include amino acids (leucine, L-Carnitine), or oral supplements containing beta-hydroxy-methylbutyrate (HMB). Vitamin D insufficiency should be checked, and supplements of 800 - 1,000 IU/day may be needed. Such nutritional measures should be combined with resistance, aerobic, and balance training exercises for muscle health. The efficacy of these interventions may be monitored using weight, BMI, calf-circumference, grip strength, and five chair stand test, as well as health-related quality of life and instrumental activities of daily living measures. Public health policies, such as COVID-19 pandemic policies, should take these principles into account in allowing these programmes to be continued as a core health measure in the same way as maintaining preventive measures for chronic diseases such as hypertension and diabetes, rather than regard them as merely social activities.

CONCLUSION

Adequate nutrition is integral to the preservation of muscle mass and function. As for chronic diseases, the principles of screening followed by management are the same. The main difference is that currently treatment is not pharmacological, but depends on lifestyle modification, where individual motivation to participate is of overriding importance. However, this must not be neglected, since there are adverse health consequences that increase the use of hospital services.

References

1. Chen L.K., Arai H., Assantachai P., et al. Roles of nutrition in muscle health of community-dwelling older adults: evidence-based expert consensus from Asian Working Group for Sarcopenia. J Cachexia Sarcopenia Muscle 2022; 13:1653-1672.
2. Tsai A.C., Chang, T.L., Wang Y.C., et al. Population-specific short-form mini nutritional assessment with body mass index or calf circumference can predict risk of malnutrition in community-living or institutionalized elderly people in Taiwan. J Am Diet Assoc 2010; 110: 1328-1334.

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References: 1. Yardley J, Kärppä M, Inoue Y, Pinner K, Perdomo C, Ishikawa K, Filippov G, Kubota N, Moline M. Long-term effectiveness and safety of lemborexant in adults with insomnia disorder: results from a phase 3 randomized clinical trial. *Sleep Med.* 2021;80:333-342. **2.** Moline M, Zammit G, Yardley J, Pinner K, Kumar D, Perdomo C, Cheng JY. Lack of residual morning effects of lemborexant treatment for insomnia: summary of findings across 9 clinical trials. *Postgrad Med.* 2021;133(1):71-81. **3.** DAYVIGO (lemborexant) Prescribing Information. Eisai Hong Kong: 2021.

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Comprehensive Geriatric Assessment for Older People with Diabetes Mellitus

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This article has been selected by the Editorial Board of the Hong Kong Medical Diary for participants in the CME programme of the Medical Council of Hong Kong (MCHK) to complete the following self-assessment questions in order to be awarded 1 CME credit under the programme upon returning the completed answer sheet to the Federation Secretariat on or before 31 July 2023.

INTRODUCTION

Diabetes mellitus (DM) is prevalent in older people, reaching 21.4% among people aged 65 years or older in Hong Kong.[1] Older people with DM are usually associated with multiple comorbidities and geriatric syndromes with functional and cognitive impairment, which together with poor psychosocial support will further complicate the management. Treatment targets the prevention of short and long term complications from DM and adverse effect of treatment-related hypoglycaemia as for younger people is not enough to address the needs of older people. Given the heterogeneous health statues of older people, patient-centered approach to formulate management plan that takes into consideration of potential benefits and risk of treatment regarding the health and functional state, and social background of an individual patient is increasingly emphasised. This highlight the importance of performing comprehensive geriatric assessment for older people with DM.

GERIATRIC SYNDROME

Older people with diabetes have a high disease burden. As many as 40% of them have four or more chronic diseases.[2] Besides, diabetes predisposes older people to geriatric syndromes. Patients with diabetes are at increased risk for cognitive decline and dementia. They are at 1.4-fold and 2.4-fold higher risk for developing Alzheimer's disease and vascular dementia respectively.[3] Besides, treatment-related hypoglycaemia, especially if severe, is prone to dementia that occurs in a graded increase dementia risk with the number of severe hypoglycaemic episodes.[4] Further, people with diabetes are at risk of developing depression, with a prevalence rate up to 2 to 3 times higher as compared with those without diabetes.[5] Both cognitive impairment and depression can impair functionality which impedes diabetic self-management, such as regular meal and medication intake, self-monitor blood glucose, and recognising hypoglycaemic symptoms for prompt management. This not only worsens diabetic control but also increases the risk of diabetic and treatment-related complications.

Older people with diabetes are also at risk of falls and fractures. Apart from treatment-related hypoglycaemia, diabetic complications such as autonomic dysfunction with orthostatic hypotension, peripheral neuropathy with gait disorder, and diabetic retinopathy with poor vision[6], and treatment-related complications such as metformin-associated vitamin B_{12} deficiency with resultant neuropathy[7] increase the susceptibility of older people to fall. Besides, diabetes is an independent risk factor for fracture[8], in which longer diabetes duration, suboptimal glucose control, diabetic retinopathy, and insulin and thiazolidinedione use are risk factors for fractures.[8-10] Pain syndrome is also common with neuropathic pain affecting up to one-third of patients with diabetes, and is more prevalent in women.[11] Urinary incontinence is also prevalent, especially in female patients with diabetes, in which one-third of female patients had reported incontinence at least weekly[12]. Both pain and urinary incontinence are often neglected in clinical practice, which may lead to adverse outcomes such as anxiety, depression, decreased socialisation, fall, and fractures if left untreated. Another impact on older patients with diabetes is polypharmacy as a result of multiple comorbidities. Polypharmacy can exacerbate the adverse effects of drugs and drug-drug interaction, precipitating geriatric syndromes such as falls, cognitive impairment, urinary incontinence and malnutrition.

COMPREHENSIVE GERIATRIC ASSESSMENT

In view of the high risk of comorbidities and geriatric syndromes with functional and cognitive decline, the position statement of the Hong Kong Geriatrics Society and the Hong Kong Society of Endocrinology, Metabolism and Reproduction have recommended the assessment and screening of the common geriatric syndromes as an extension of diabetic complications screening for older people with diabetes.[13] The syndromes that could be included are frailty, cognitive function, polypharmacy, nutrition, falls, hearing and visual impairment, depression, pain, and urinary incontinence. To accomplish this, individualised approach that takes into account of patient's own circumstances, incorporating a comprehensive geriatric assessment is indicated. Comprehensive geriatric assessment (CGA) is "a multidimensional interdisciplinary diagnostic process focused on determining a frail older person's medical, psychological and functional capacity in order to develop a

coordinated and integrated plan for treatment and long term follow up".[14] This comprehensive approach is a diagnostic as well as a therapeutic process. It involves a multidisciplinary team comprising physicians, nurses, allied health professionals and social workers, which work coordinately for the goal of improving care outcomes and quality of life for older people. CGA is recommended for older people with diabetes, especially those who are frail or when there is a change of medical conditions. After an extensive evaluation (Table 1), a problem list is generated regarding the glycaemic control, presence of diabetic complications, treatment-related adverse events, comorbidities and geriatric syndromes, any cognitive or functional impairment and psychosocial problems. Then multidisciplinary interventions are integrated with patients' or caregiver's preferences to conserve the older people' s health status, improve psychosocial support, and maintain their independence and community living status.

Table 1. Component of comprehensive geriatric assessment in older people with diabetes mellitus (Summarised and developed by author)

• Diabetic control, diabetic and treatment complications assessment
• Comorbidities assessment
• Geriatric syndromes screening : frailty; cognitive dysfunction; polypharmacy; nutrition; falls; hearing and visual impairment; depression; pain; and urinary incontinence
• Medications review
• Assessment of medication adherence
• Functional assessment: mobility, basic and instrumental activities of daily living
• Cognitive function assessment
• Psychological assessment
• Social assessment: living status, social support

An example of CGA for older people with diabetes is presented. An 80-year-old woman with diabetes attended the geriatric clinic and reported being dizzy with sweating attack recently, for which she had one episode of fall. She had no self-monitor of blood glucose at home, and her glucometer reading was 5 mmol/l at the clinic. Other medical history included hypertension, hyperlipidaemia, and ischemic stroke with mild right hemiparesis. Regular medications included aspirin, amlodipine, lisinopril, simvastatin, gliclazide, and metformin. She admitted fair drug adherence as she sometimes forgets to take medications and took over-the-counter medications, amitriptyline for right side paraesthesia and knee pain. She had no close relatives in Hong Kong and lived alone. She walked with a quadripod and went out daily for exercise and marketing. She expressed concern about the deterioration of her health condition. Physical examination revealed low blood pressure of 105/60 but no significant postural blood pressure drop, right side hemiparesis with muscle power grade 4/5, and varus deformities of both knees. Laboratory tests revealed haemoglobin A_{1c} 5.8 %, serum vitamin B_{12} 117 pmol/L, renal and liver function test, and electrocardiography were normal. Patients were referred for diabetic complication screening and were also assessed by a nurse, physiotherapist, and occupational therapist for CGA.

The following problems were found:

- Dizzy with sweating attack was likely related to hypoglycaemia in which diabetic control was good with HbA_{1c} of 5.8%.
- Fall: multifactorial, including low blood pressure with anti-hypertensive agent use, anti-diabetic agents related hypoglycaemia, vitamin B_{12} deficiency related neuropathy (probably related to long term metformin), varus deformity due to osteoarthritis of knee.
- Mild cognitive impairment with Montreal Cognitive Assessment (Hong Kong version) scored 15/30.
- Poor drug adherence: because of impaired dexterity of the right hand, the patient could not split amlodipine, and she took amlodipine 5 mg instead of 2.5 mg daily. She was suspected to have erratic drug taking as some medications in stock were few while some were many.
- Pain syndrome: stroke related paraesthesia, and osteoarthritis of knees
- Poor psychosocial support with anxiety about deteriorating health condition
- Living environment: no lift, needed to climb 1 flight of stairs

The following Interventions were implemented for our patient:

- Physicians: drug regimen was adjusted (discontinue gliclazide, amlodipine and amitriptyline) and simplified to once per day. Vitamin B_{12} replacement was given and paracetamol was added for pain relief. Regular follow-up was arranged for monitoring of response.
- Community nurse service: home visits were arranged for blood pressure and blood glucose monitoring, medication management, and provided diabetic education such as self-monitoring of blood pressure and blood glucose, regular meal intake in relation to drug taking, recognising symptoms of hypoglycaemia and self-management.
- Physiotherapist and occupational therapist: the patient was referred to a geriatric day hospital for muscle strengthening, mobility, cognitive and activities of daily living training, and pain relief.
- Medical social worker: arranged home support services such as meal delivery, escort service, household cleaning, safety alarm service, etc.

CONCLUSION

Diabetes mellitus exerts an impact on older patients more than just the medical aspect. Apart from multiple comorbidities and geriatric syndromes, older patients are at risk of cognitive and functional decline. CGA to include the comorbidities assessment, screening for geriatric syndrome, and assessment of cognitive and functional state and psychosocial support to formula a long term management plan is recommended to address the complicated needs for older people with diabetes.

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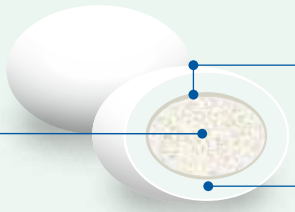

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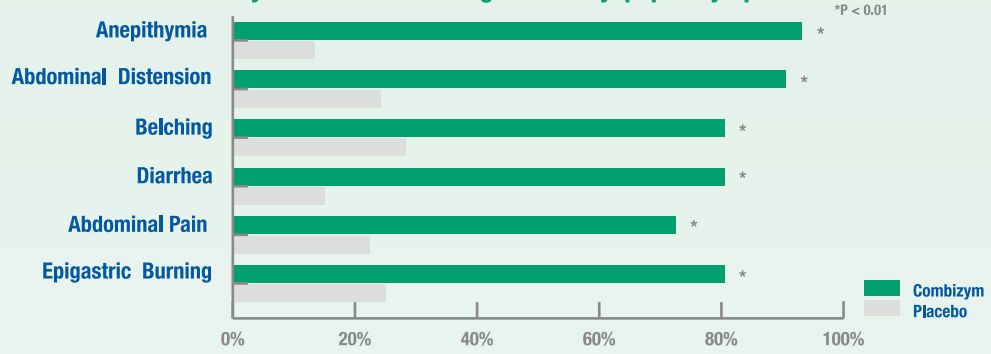

INDICATION

• Digestive disorders • Enzyme deficiencies • Indigestion in pancreatic, biliary and hepatic diseases • Abdominal fullness, meteorism • Digestion deficiency in elderly, during convalescence and after operations • GI disorder following drug intolerance • Impediments with mastication and during dietary regimens

Reference:
1. Ran, Z. H. et al. The efficacy of Combizym in the treatment of Chinese patients with dyspepsia: a multicenter, randomized, placebo-controlled and cross-over study: Shanghai Combizym Clinical Cooperative Group. Journal of digestive diseases, 2009; 10: 41–48.

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項目內容

- 本園的專職同事會解答照顧者在家人出院後的憂慮及疑問，並於一個月後作出跟進
- 為剛出院之腦退化症人士免費設定個人照顧計劃後的憂慮及疑問，並於一個月後作出跟進
- 安排職業治療師免費上門作家居評估及居家照顧建議

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計劃背景

繼賽馬會「回家易」離院復康計劃第一期之成功，賽馬會耆智園承蒙香港賽馬會慈善信託基金撥款捐助推行第二期「回家易」計劃。計劃旨在協助腦退化症的家人，在家中為剛離院的長者提供日常生活照顧，同時也為長者提供復康訓練，令長者盡快回復入院前的健康及精神狀況，得以繼續在家安老。

References

1. McChee SM, Cheung WL, Woo J, et al. Trends of disease burden consequent to diabetes in older persons in Hong Kong : implications of population ageing. Hong Kong SAR: Hong Kong Jockey Club; 2009.
2. Wolff JL, Starfield B, Anderson G. Prevalence, expenditures, and complications of multiple chronic conditions in the elderly. Arch Intern Med 2002; 162:2269-76.
3. Lu FP, Lin KP, Kuo HK. Diabetes and the risk of multiple system gaining phenotypes: a systematic review and metaanalysis. PLoSOne 2009; 4:e144.
4. Whitmer RA, Karter AJ, Yaffe K, Quesnberry CP Jr, Selby JV. Hypoglycaemic episodes and risk of dementiain older patients with type 2 diabetes meelitus. JAMA 2009; 301:1565-72.
5. Roy T, Lioyd CE. Epidermiology of depression nad diabetes: a systematic review. J Affect Disord 2012; 142(suppl):S8-S21.522-5.
6. Mayne D, Stout NR, Aspray TJ. Diabetes, falls and fractures. Age Ageing 2010; 39:522-5.
7. Bauman WA, Shaw S, Jayatilleke E, Spungen AM, Herbert V. Increase intake of calcium reverses vitamin B12 malabsorption induced by metformin. Diabetes Care 2000; 23:1227-31.
8. Schneider AL, Williams EK, Brancati FL, Blecker S, Coresh J, Selvin E. Diabetes and risk of fracture-related hospitalization: the Atherosclerosis Risk in Communities Study. Diabetes Care 2013; 36:1153-8.
9. Loke YK, Singh S, Furberg CD. Long-term use of thiazolidinediones and fractures in type 2 diabetes: a meta-analysis. CMAJ 2009; 180:32-9.
10. Ivers RQ, Cumming RG, Mitchell P, Peduto AJ; Blue Mountains Eye Study. Diabetes and risk of fracture: The Blue Mountains Eye Study. Diabetes Care 2001; 24:1198-203.
11. Abbott CA, Malik RA, van Ross ER, Kulkarni J, Boulton AJ. Prevalence and characteristics of painful diabetic neuropathy in a large community-based diabetic population in the U.K. Diabetes Care 2011; 34:2220-4.
12. Brown JS, Vittinghoff E, Lin F, Nyberg LM, Kusek JW, Kanaya AM. Prevalence and risk factors for urinary incontinence in women with type 2 diabetes and impaired fasting glucose: findings from the National Health and Nutrition Examination Survey (NHANES) 2001-2002. Diabetes Care 2006; 29:1307-12.
13. Wong CW, Lee SW, Tam KF, et al. Diabetes in older people: position statement of the Hong Kong geriatrics society and the Hong Kong society of endocrinology, metabolism and reproduction. Hong Kong Med J 2017; 23:524-33.
14. Rubenstein LZ, Struck AE, Siu AL, Wieland D. Impacts of geriatric evaluation and management programs on defined outcomes: overview of the evidence. J Am Geriatr Soc 1991; 39(9 Pt 2):8S-16S.

MCHK CME Programme Self-assessment Questions

Please read the article entitled "Comprehensive Geriatric Assessment for Older People with Diabetes Mellitus" by Dr WONG Chit-wai and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 31 July 2023. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary. (Address: Duke of Windsor Social Service Bldg., 4/Fl., 15 Hennessy Rd., Wan Chai. Enquiry: 2527 8898)

Questions 1-10: Please answer T (true) or F (false)

1. **The main treatment target of diabetes in older people is the prevention of short and long term complications from diabetes.**
2. **Management of diabetes in older people should be individualised because of the heterogeneous health status of older people.**
3. **Both hyperglycaemia and hypoglycaemia are risk factors for dementia.**
4. **Older people with diabetes are prone to fracture only because they are at risk of fall.**
5. **Pain syndrome and urinary incontinence is more common in female patients with diabetes.**
6. **Patients with diabetes are at risk of depression which may worsen diabetic control.**
7. **Polypharmacy is a common in older people with diabetes.**
8. **Screening for geriatric syndromes is recommended as a part of diabetic complications screening for older people.**
9. **The main goal of comprehensive geriatric assessment for older people with diabetes is to improve diabetic control and minimise diabetic complications.**
10. **Comprehensive geriatric assessment involves a multidisciplinary team but not only clinicians and nurses.**

ANSWER SHEET FOR JULY 2023

Please return the completed answer sheet to the Federation Secretariat on or before 31 July 2023 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions.

Comprehensive Geriatric Assessment for Older People with Diabetes Mellitus

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Specialist in Geriatric Medicine

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Answers to June 2023 Issue

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HK-LU-2023.06-AD01

Update on Management of Behavioural and Psychological Symptoms of Dementia

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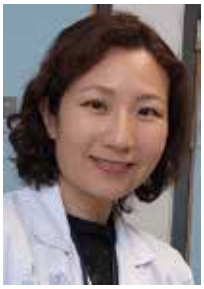


Dr Ka-lin LEE Prof Linda CW LAM

ABSTRACT

Behavioural and psychological symptoms, or neuropsychiatric symptoms (BPSD), represent an important clinical dimension of dementia. The symptom clusters included motivation and mood syndrome, psychosis, activity disturbances and vegetative symptoms. BPSD are highly prevalent in people with dementia. The presentations vary with dementia subtypes, and are modified by biological predisposition for mental symptoms and previous life experience. The presence of distressing BPSD is associated with a heavy caregiver burden and is a driving force for institutional living. Management should be personalised, multifaceted, and adapted to changing needs over time.

THE SPECTRUM OF BPSD

Motivation and Mood Syndromes - Apathy, Depression, Anxiety

Depression, anxiety, irritability and apathy symptoms are highly prevalent across different stages of dementia.[1] Despite the widespread use of antidepressants (30 - 50% of patients with AD/dementia are on antidepressants),[2] there is no strong support for the efficacy of antidepressants for treating depression in dementia, especially beyond 12 weeks.[3] Benzodiazepines (BDZ) have been largely used to treat anxiety. Although effective, its use among elderly patients requires extra caution. For resistant anxiety symptoms in dementia, a multi-centre, retrospective and observational study suggested that pregabalin might provide clinical improvement.[4]

On the other hand, non-pharmacological interventions are important in the management of depression in dementia. Group reminiscence therapy is found to be effective in improving depressive symptoms in Chinese patients with AD.[5] Exercise has a moderate and high confidence positive effect on depression.[6] A systematic review (2021) suggested clinicians to adopt multidisciplinary care with occupational therapy, and non-medication interventions (e.g. animal therapy and exercise) in order to reduce depressive symptoms in dementia.[7]

Apathy is also a common and distressing symptom. Carers frequently reported apathy as psychologically disturbing as other mood symptoms. Apathy is related to a dysfunctional frontal-subcortical dopaminergic pathway, a higher depletion of acetylcholine in the frontal lobe which resulted in reduced initiation, loss interest in participating in activities of daily living or other activities.[8] Apathy in mild cognitive impairment may be associated with an increased risk of conversion to AD and all-cause dementia over time.[1,9] Although some studies reported favourable outcomes with the use of cholinesterase inhibitors, memantine and agomelatine for apathy in AD and frontotemporal dementia[10-12], treatment options remain very limited. Nonpharmacological approach includes structured activity schedules to soptimise physical exercise and cognitive stimulation.

Delusions and Hallucinations - Psychosis

Delusions, including delusions of theft, persecution, infidelity or abandonment are regularly reported in Alzheimer's disease (AD).[13] Sensory impairments may aggravate hallucinatory experiences. Hallucination is common in Dementia with Lewy bodies (DLB), recurrent visual hallucinations are one of the four core clinical features for clinical diagnosis of DLB.[14] On the other hand, auditory hallucination is not common in dementia. Psychotic symptoms in dementia are less persistent than schizophrenia and may resolve over the course of the illness.[15] Removal of potentially exacerbating medications, such as dopaminergic therapies as well as anticholinergic medication may reduce psychotic symptoms in dementia. Pimavanserin is currently the only FDA approved drug for the treatment of hallucinations and delusions in Parkinson's disease. Other atypical and typical antipsychotic medications for psychosis in dementia are off-labelled use and with black box warning for risks to elderly patients with dementia, such as cerebrovascular adverse events and mortality. If antipsychotics are considered for the management of severe and dangerous symptoms in patients with dementia, this should be discussed with the patients and their caregivers after careful consideration of the pros and cons. Regular review for clinical benefit and adverse effects is necessary.

SLEEP DISTURBANCES

Dementia is associated with sleep and circadian disturbances, worse than the expected gradual sleep quality with ageing.[16] The principles of managing sleep disturbances are similar to insomnia management in adults. Any underlying primary sleep disorders, e.g., sleep apnoea should be treated. Increase in daytime

activities and exercise, reduction in nighttime fluid intake, along with a more structured daily and evening routine, should be attempted.[17] Implementation of improved sleep hygiene is often helpful in reducing the need for pharmacological intervention. Insufficient natural light exposure was associated with the worsening of BPSD and disrupted activity rhythm.[18] Research data regarding bright light therapy for sleep disturbances in dementia are mixed.[19] As light exposure is generally safe and does not associate with significant adverse effects, it may be worthwhile to advise patients to try to increase exposure to bright light during the day.

To treat insomnia in AD, there was insufficient evidence supporting the use of commonly prescribed hypnotics in the general population. BZPs and BZP receptor agonists (zolpidem and zopiclone) should be avoided in elderly with dementia because they may induce falls and worsen cognition.[20] Melatonin may be beneficial for REM-sleep behavioural symptoms in Dementia with Lewy Bodies.[21] Trazodone 50 mg at bedtime has been shown to improve sleep metrics.[22] Lemborexant, an orexin antagonist, was found to increase nocturnal sleep time and reduce the time awake after sleep onset. It may also be associated with an increase in sleep efficiency and reduced sleep latency.[23]

Agitation and Aggression - Activity disturbances

Activity disturbances involve a range of psychomotor disturbances that include verbal outbursts, physical aggression, intense anxiety and crying, restlessness and wandering. Causes of agitation also range from physical, e.g., pain, exacerbation of medical illness by environmental factors, e.g., understimulation to overstimulation, e.g., frequent changes in routine, fatigue. Agitation or aggression can be manifestations of other BPSD, such as psychosis and anxiety. Good history taking to facilitate carers to describe the exact circumstances is better than simply labelling the patient as agitated or aggressive. Different types of agitation and different phenotypes may respond differentially to treatments.[2] For example, among agitated patients treated with citalopram, those with the mild-moderate symptoms appeared to respond better while those with more severe agitation demonstrated less efficacy and more side effects.[24]

Second generation antipsychotics are reported to have moderate effects in the reduction of agitation in dementia.[25] However, due to the potentially increased risk of stroke, fall, fracture, and premature death, current guidelines recommend against the use of antipsychotics as a first choice to treat BPSD.[26] Sodium valproate is one of the mood stabilisers for psychiatric illnesses. It has been used to control agitation in patients with dementia. However, a review commented that such medications are not more effective than placebo, and may be associated with a higher rate of adverse effects[27].

MANAGEMENT PRINCIPLES FOR BPSD

There is no single aetiology for BPSD. A multifaceted consideration ssummarises the interactions of symptoms with a person's physical state, prior experience and current environment. Patients' and carers' perspectives should be taken into account. Delirium is one of the differential diagnoses for abrupt change in BPSD and adequate investigation is necessary to identify any reversible medical causes.

After soptimisation of medical comorbidity, nonpharmacologic management should be considered as first-line therapy in most cases. Three main categories of environmental contributions should be considered. First, are there unmet needs (e.g., for food, fluid, companionship)? Second, how behaviors are reinforced unintentionally reinforcement of unwanted behaviours such as persistent yelling after overstimulation? Third, are there patient-environment mismatch (e.g., when a caregiver's expectations exceed a patient s capability)?

For severe BPSD with potential risks to oneself and others, psychotropic medication may only be considered after nonpharmacological approaches have been tried. Always choose the medication that is most tolerable, initiate at the lowest possible dose and titrate slowly to the minimum effective dose. Regular review of medication effectiveness and potential adverse effects upon is necessary. For any interventions in which harms may outweigh benefits, termination should be considered.

CONCLUSION

BPSD are associated with earlier decision for admission to nursing homes and aggravate functional decline. Collateral information provides insight into the target BPSD, duration of symptoms, aggravating and mitigating factors. Optimisation of physical comorbidity, thorough medication review, pharmacological and nonpharmacological interventions need to be spersonalised with a shared decision-making paradigm involving patients and caregivers. It is important to appreciate the degenerative trajectory in dementia, so management should be dynamically adapted to the physical state and psychiatric needs over time.

References

1. Leung DKY, Chan WC, Spector A, Wong GHY. Prevalence of depression, anxiety, and apathy symptoms across dementia stages: A systematic review and meta-analysis. Int J Geriatr Psychiatry. 2021;36(9):1330-44.
2. Cummings J, Ritter A, Rothenberg K. Advances in Management of Neuropsychiatric Syndromes in Neurodegenerative Diseases. Curr Psychiatry Rep. 2019;21(8):79.
3. Dudas R, Malouf R, McCleery J, Dening T. Antidepressants for treating depression in dementia. Cochrane Database Syst Rev. 2018;8(8):CD003944.
4. Segers K, Baxevani E, Benoit F, Meyts JM, Surquin M. Pregabalin as a Treatment for Anxiety in Patients With Dementia With Lewy Bodies: A Case Series. J Clin Psychopharmacol. 2020;40(3):297-9.
5. Li M, Lyu JH, Zhang Y, Gao ML, Li R, Mao PX, et al. Efficacy of Group Reminiscence Therapy on Cognition, Depression, Neuropsychiatric Symptoms, and Activities of Daily Living for Patients With Alzheimer Disease. J Geriatr Psychiatry Neurol. 2020;33(5):272-81.
6. Kouloutbani K, Venetsanou F, Karteroliotis KE, Politis A. Physical Exercise as a Nonpharmacological Intervention for the Treatment of Neuropsychiatric Symptoms in Persons With Dementia: A Meta-analysis of Randomized Controlled Trials. Alzheimer Dis Assoc Disord. 2023;37(1):73-81.
7. Watt JA, Thompson W, Marple R, Brown D, Liu B. Managing neuropsychiatric symptoms in patients with dementia. BMJ. 2022;376:e069187.
8. Le Heron C, Holroyd CB, Salamone J, Husain M. Brain mechanisms underlying apathy. J Neurol Neurosurg Psychiatry. 2019;90(3):302-12.

9. Fresnais D, Humble MB, Bejerot S, Meehan AD, Fure B. Apathy as a Predictor for Conversion From Mild Cognitive Impairment to Dementia: A Systematic Review and Meta-Analysis of Longitudinal Studies. J Geriatr Psychiatry Neurol. 2023;36(1):3-17.
10. Rea R, Carotenuto A, Traini E, Fasanaro AM, Manzo V, Amenta F. Apathy Treatment in Alzheimer's Disease: Interim Results of the ASCOMALVA Trial. J Alzheimers Dis. 2015;48(2):377-83.
11. Callegari I, Mattei C, Benassi F, Krueger F, Grafman J, Yaldizli O, et al. Agomelatine Improves Apathy in Frontotemporal Dementia. Neurodegener Dis. 2016;16(5-6):352-6.
12. Li P, Quan W, Zhou YY, Wang Y, Zhang HH, Liu S. Efficacy of memantine on neuropsychiatric symptoms associated with the severity of behavioral variant frontotemporal dementia: A six-month, open-label, self-controlled clinical trial. Exp Ther Med. 2016;12(1):492-8.
13. Ballard C, Kales HC, Lyketsos C, Aarsland D, Creese B, Mills R, et al. Psychosis in Alzheimer's Disease. Curr Neurol Neurosci Rep. 2020;20(12):57.
14. McKeith IG, Boeve BF, Dickson DW, Halliday G, Taylor JP, Weintraub D, et al. Diagnosis and management of dementia with Lewy bodies: Fourth consensus report of the DLB Consortium. Neurology. 2017;89(1):88-100.
15. van der Linde RM, Dening T, Stephan BC, Prina AM, Evans E, Brayne C. Longitudinal course of behavioural and psychological symptoms of dementia: systematic review. Br J Psychiatry. 2016;209(5):366-77.
16. Wong R, Lovier MA. Sleep Disturbances and Dementia Risk in Older Adults: Findings From 10 Years of National U.S. Prospective Data. Am J Prev Med. 2023.
17. Wilfling D, Calo S, Dichter MN, Meyer G, Mohler R, Kopke S. Non-pharmacological interventions for sleep disturbances in people with dementia. Cochrane Database Syst Rev. 2023;1(1):CD011881.
18. Guu TW, Aarsland D, Ffytche D. Light, sleep-wake rhythm, and behavioural and psychological symptoms of dementia in care home patients: Revisiting the sundowning syndrome. Int J Geriatr Psychiatry. 2022;37(5).
19. Tan JSI, Cheng LJ, Chan EY, Lau Y, Lau ST. Light therapy for sleep disturbances in older adults with dementia: a systematic review, meta-analysis and meta-regression. Sleep Med. 2022;90:153-66.
20. McCleery J, Sharpley AL. Pharmacotherapies for sleep disturbances in dementia. Cochrane Database Syst Rev. 2020;11(11):CD009178.
21. Elder GJ, Lazar AS, Alfonso-Miller P, Taylor JP. Sleep disturbances in Lewy body dementia: A systematic review. Int J Geriatr Psychiatry. 2022;37(10).
22. Camargos EF, Louzada LL, Quintas JL, Naves JO, Louzada FM, Nobrega OT. Trazodone improves sleep parameters in Alzheimer disease patients: a randomized, double-blind, and placebo-controlled study. Am J Geriatr Psychiatry. 2014;22(12):1565-74.
23. Moline M, Thein S, Bsharat M, Rabbee N, Kemethofer-Waliczky M, Filippov G, et al. Safety and Efficacy of Lemborexant in Patients With Irregular Sleep-Wake Rhythm Disorder and Alzheimer's Disease Dementia: Results From a Phase 2 Randomized Clinical Trial. J Prev Alzheimers Dis. 2021;8(1):7-18.
24. Schneider LS, Frangakis C, Drye LT, Devanand DP, Marano CM, Mintzer J, et al. Heterogeneity of Treatment Response to Citalopram for Patients With Alzheimer's Disease With Aggression or Agitation: The CitAD Randomized Clinical Trial. Am J Psychiatry. 2016;173(5):465-72.
25. Muhlbauer V, Mohler R, Dichter MN, Zuidema SU, Kopke S, Luijendijk HJ. Antipsychotics for agitation and psychosis in people with Alzheimer's disease and vascular dementia. Cochrane Database Syst Rev. 2021;12(12):CD013304.
26. Reus VI, Fochtmann LJ, Eyler AE, Hilty DM, Horvitz-Lennon M, Jibson MD, et al. The American Psychiatric Association Practice Guideline on the Use of Antipsychotics to Treat Agitation or Psychosis in Patients With Dementia. Focus (Am Psychiatr Publ). 2017;15(1):81-4.
27. Baillon SF, Narayana U, Luxenberg JS, Clifton AV. Valproate preparations for agitation in dementia. Cochrane Database Syst Rev. 2018;10(10):CD003945.

Dermatology Quiz

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Fig. 1: Swelling of face, neck and lip

Fig. 2: Painful bright red facial swelling

This middle-aged man had persisting painless and non-pitted swelling of his face and neck (Fig. 1). Several months ago, he had radiotherapy and chemotherapy for his nasopharyngeal carcinoma. In the subsequent year, he had repeated episodes of acute onset of painful bright-red facial swelling (Fig. 2), associated with fever, chills, malaise and headache. Laboratory tests showed neutrophilic leukocytosis and elevated C-reactive protein.

Questions

1. What are your diagnoses for conditions in Fig. 1 and Fig. 2?
2. What are the causes of these two conditions?
3. What are the possible complications in each condition?
4. How do you treat this patient?

(See P.44 for answers)

Deprescribing: Less is More for Elderly Patients?

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A CASE VIGNETTE

A 77-year-old man has been attending Medical Clinic for hypertension, hyperlipidaemia, atrial fibrillation, recurrent strokes (first ischaemic at age 71 years, second haemorrhagic at age 73 years), dementia, and chronic kidney disease. His medications prescribed in his last clinic visit half year ago include Aricept (donepezil), betaloc, citalopram, edoxaban, lactulose, melatonin, pepcidine, thiamine and Zocor (simvastatin).

His wife and son brought him to attend a Geriatric Clinic because he was noted to have significant cognitive and functional deterioration for the past one month, with two episodes of falls, and intermittent urinary and faecal incontinence requiring the use of napkins, causing significant caregiver stress on the family.

Would you stop any of his drugs? Which ones? Why?

INTRODUCTION

The word "poison" was the collective term for all medicines in early Chinese history, alerting the healer of their cautious and appropriate use. Elderly patients are especially prone to drug-induced illness, as they differ from younger adults in terms of comorbidity, polypharmacy, pharmacokinetics and greater vulnerability to adverse drug reactions (ADRs).[1] The potential impact of medications in threatening the functional independence of an elderly person has long been recognised in Brocklehurst's frailty balance of breakdown in old age,[2,3] and recently "medications" have been framed into the geriatric 5Ms[4,5] (Table 1) as the need to consider medication burden in the holistic care of elderly patients. Hospitalised elderly patients are two to three times more likely to experience an ADR than patients aged 20 to 30 years,[6] and 16% experienced significant ADRs.[7] One in three elderly persons in primary care uses potentially unnecessary or inappropriate medications[8] that can increase their risk of ADR,[8] hospitalisation,[9] death,[10] and worsening geriatric syndromes.[11,12]

ADRs in old age frequently remain unrecognised by doctors or patients, and often masquerade as the geriatric syndromes of instability (falls, faints), intellectual impairment (delirium, dementia), incontinence, immobility, and failure to thrive.[11,12] Despite their impact on elderly patients and their caregivers, these geriatric syndromes are often ignored (the inverse care law), and their presenting problems are managed instead as diseases under multiple specialties, triggering unnecessary investigations and further drug prescriptions (prescribing cascade). All these would have been avoided if the geriatric syndromes were identified early as drug-induced and the implicated drugs reduced or stopped.

Deprescribing refers to the planned discontinuation or dose reduction, under medical supervision, of medication when the benefits of continued use or at the current dose no longer outweigh the risks.[13] Deprescribing encompasses the process of medication review and optimisation, and is an essential component in the 5Ms of age-friendly care to improve the quality and safety of care of elderly patients.[14]

Table 1. The geriatrics 5Ms and their relevant factors to consider in the holistic care of elderly patients (Adapted from references 4 and 5)

Geriatrics 5Ms		Relevant factors
1.	Matters most to me	individualised preferences and goals
2.	Mind	cognition and mood
3.	Mobility	dexterity, swallowing, life space, fall risk
4.	Medications	medication burden, drug-induced geriatric syndromes, polypharmacy, prescribing cascades
5.	Multi-complexity	multi-morbidities, medical and social, ethical and legal

CLINICAL PRACTICE OF DEPRESCRIBING

Tools

Practical tools, based on consensus building from updated literature, have been designed to optimise the deprescribing process, e.g. Beers Criteria for potentially inappropriate medication (PIM) use in older adults;[15] the screening tool of older people's prescriptions and screening tool to alert to right treatment (STOPP/START) criteria;[16] Screening Tool of Older Persons Prescriptions in older adults with high fall risk (STOPPFall);[17] and The Screening Tool of Older Persons Prescriptions in Frail adults with limited life expectancy (STOPPFrail).[18] However, a simple list of explicit prescribing criteria or PIM cannot replace personalised clinical care of an elderly patient that requires time and skill.

Medication Review and Deprescribing

Medication review is a common practice to address inappropriate polypharmacy. It is a systematic examination of a patient's medicines against his/her diagnoses and problem list, with the purpose of augmenting the impact of medicines, reducing the number of medication-related complications, and decreasing waste.[19] A structured multidisciplinary medication review by physician, pharmacist and nurse has been shown to reduce inappropriate psychotropic drug prescriptions for neuropsychiatric symptoms in nursing home patients with dementia.[20] Meta-analyses of the few randomised controlled studies on medication reviews and deprescribing in community-dwelling and frail elderly persons have shown reduction of PIM, total number of medications per patient, and mortality, but the impact on clinical outcomes (depression, cognition, falls, function and frailty) are variable, and there is insufficient evidence in terms of quality of life, frailty score and hospital admissions.[21-23] However, this has to be offset against the complete lack of evidence that additional medications in elderly people with frailty is beneficial, viz: whether adding the eleventh tablet has the same beneficial effect, similar to the other ten, when compared to trials recruiting an idealised, non-frail trial population.

The current body of evidence yields little guidance for practitioners on exactly how to deprescribe. A 5-step deprescribing protocol has been proposed[24]:

1. Ascertain all drugs the patient is currently taking and the reasons for each one
2. Consider the overall risk of drug-induced harm in individual patients in determining the required intensity of deprescribing intervention
3. Assess each drug in regard to its current or future benefit potential compared with current or future harm or burden potential
4. Prioritise drugs for discontinuation that have the lowest benefit-harm ratio and lowest likelihood of adverse withdrawal reactions or disease rebound syndromes
5. Implement a discontinuation regimen and monitor patients closely for improvement in outcomes or onset of adverse effects.

Deprescribing may be in response to a significant event such as functional change, ADR, hospitalisation or residential care home admission. It may be proactive in a clinical encounter of patients with inappropriate polypharmacy, part of an advance care planning process, or part of end-of-life care.[25] Appropriate prescriptions and deprescriptions at the "right time" and of the "right medications" for frailer elderly persons aren't always clearcut, because they are often underrepresented in randomised trials and evidence-based medicine.[26] Disease-specific guidelines, based on risk-benefit studies on the use of a single drug for a single disease simply cannot be extrapolated to the clinical care of an elderly person with multiple diseases on multiple drugs. Given the uncertainty of deprescribing and prescribing in frail elderly people, it is helpful to adopt a multidisciplinary shared decision making approach that respects individual goals and priorities. Deprescribing requires a thoughtful explanation to patients and caregivers. Deprescribing is not about restricting the access to healthcare (less care) but instead an acceptance of the limitations of drugs, especially in complex frail elderly patients. While patients may have symptom reversal for drug-induced problems, they need to accept the risk of withdrawal effects, which necessitates monitoring and follow up. Also, multiple aetiologies commonly occur in old age. Thus, initial resolution of symptoms upon drug withdrawal with later recurrence of similar symptoms may indicate an underlying disease sharing similar presentations as ADR, illustrated by a case report of a patient with both timolol-induced bradycardia and atrio-ventricular conduction defect.[27]

Hurdles

Different barriers were identified that impede the implementation of deprescribing.[25,28-33] Cultural and organisational barriers included a culture of diagnosing and prescribing; evidence-based guidelines focused on single diseases; a lack of evidence-based guidance for the care of older people with multimorbidities; limited incentives for deprescribing, and a lack of collaborative working, shared communication, interoperable electronic health records, decision-making systems, tools, and resources. Interpersonal and individual-level barriers included professional etiquette; clinician time constraints, fragmented care; lack of information for a full clinical picture of the patient; lack of confidence to deprescribe and fear of negative consequences; prescribers' and patients' strong belief in the continuation of medicines; prescribers' and patients' uncertainties and lack of knowledge; and gaps in tailored support.

Tallis, recognising the information overload confronting clinicians dealing with the increasingly complex medical problems of an ageing population, advocated back in 1986 the use of information technology to assist the prescriber to help control the present epidemic of drug-induced disease.[34] Initial success in reducing PIM in hospitalised elderly patients was shown in a systematic review examining the impact of computerised clinical decision support systems (CDSS).[35] However, the subsequent international SENATOR RCT, a CDSS based on the STOPP/START criteria, was introduced without success.[36] The failure of the implementation of SENATOR software-generated medication advice was attributed to limited engagement due to lack of knowledge, uncertainty of the effect and time pressures.

The hurdles of deprescribing can be overcome by education and training on proactive deprescribing; prudent prescribing; greater availability and acceptability of non-drug alternatives; resources; improved physician-patient and physician-physician communication, collaboration, knowledge, and understanding; and shared decision-making.[28-31,37,38] To facilitate safe deprescribing, a whole system, patient-centred approach is required, involving good communication and relationships among key decision-makers, healthcare professionals, patients, and caregivers, supported by improved healthcare informatics.[5,28-31]

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References: 1. AcrySof® IQ Vivity® Extended Vision IOL Directions for Use. **2.** Alcon Data on File, US Patent 9968440 B2, May 15, 2018. **3.** Alcon Data on File, TDOC-0055575. 09 Apr 2019. **4.** Alcon Data on File. TDOC-0055576. 23-Jul-2019. **5.** Alcon Data on File, TDOC-0056718. 18-Jun-2019. **6.** Ligabue E, et al. ACRYSOF IQ VIVITY: Natural vision at a range of distances provided by a novel optical technology. Cataract & Refractive Surgery Today. April 2020 // **7.** Alcon Data on file. A02062-REP-043696, Optical Evaluations of Alcon Vivity®, Symfony*, Zeiss* AT LARA* AT LISA IOLs. Feb 2020. **8.** Lawless M. Insight news. "An IOL to change the cataract surgery paradigm?" available at "https://www.insightnews.com.au/an-iol-to-change-the-cataract-surgery[1]paradigm/". Accessed Date 17.07.202

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References: 1. Modi S, et al. Visual and patient reported outcomes of a diffractive trifocal intraocular lens compared with those of a monofocal intraocular lens. Ophthalmology. 2021;128(2):197 207. **2.** ZHU et.al. Rate of Complete Spectacle Independence with a Trifocal IOL (PanOptix): A Systematic Literature Review and Meta Analysis. Presentation at 2022 ASCRS; April 2022; Washington, D.C. **3.** Market Scope 2022 IOL Market Report. **4.** Alcon Data on File, 2022. [REF 18881] 5) Clareon® PanOptix® Trifocal IOL Directions for Use.

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It has been advocated that with the geriatrics 5Ms (Table 1) holistic approach and appropriate support, prescribers in partnership with their patients and care team can be better equipped to optimise polypharmacy to support what matters most to our elderly patients.[5] In a scoping review of deprescribing intervention trials, clear consideration of "Medication" was noted in deprescribing trials, as expected. However, "Mind", "Mobility", and "What Matters Most" have been considered to varying degrees in deprescribing trials, limiting the potential of deprescribing evidence to contribute to improvements in comprehensive geriatric clinical care.[14] It has been proposed that future deprescribing interventions and practices that incorporate patient-centeredness in the design and outcome assessment are needed to promote the age-friendliness in deprescribing.[14]

CONCLUSION AND ADVICE

Deprescribing is the art of appropriate prescription with knowledge of the elderly person in context, balancing the harmful and beneficial effects of medications, while acknowledging the limitation of evidence-based medicine and disease-specific guidelines. The frailty balance[3] is modified (Fig. 1) to show the dual nature of medications, medications as disease simulators, and the role of non-drug measures in enhancing physical and mental health. The dynamic nature of the frailty balance reminds us that ill health in old age can be reversed by restoring the equilibrium through attending to its positive and negative factors: deprescribe or prescribe appropriately in context, enhancing physical and mental health with non-drug measures, enhancing social support, and accurate diagnosis and treatment of diseases, while recognising that diseases in old age can often be drug-induced, and the treatment then is drug withdrawal instead of adding more drugs.

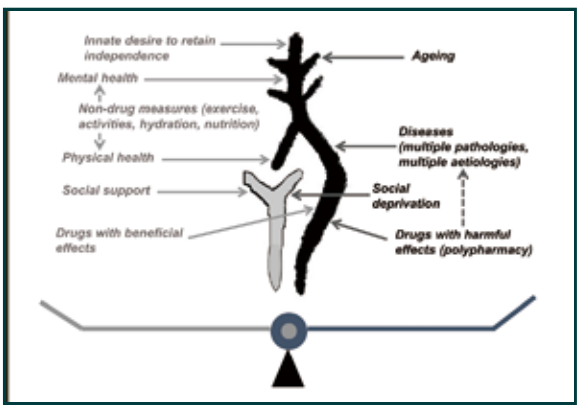

Fig. 1. Frailty balance modified for dual nature of drugs, drugs as disease stimulators, and role of non-drug measures (Adapted from reference 3)

"Less (drugs through deprescription) is more (effective)" has been demonstrated in studies in reducing PIM and polypharmacy in elderly populations, but not consistently for other clinical outcomes. Yet, deprescription is recommended for elderly patients, especially frailer ones, because of the high prevalence of inappropriate polypharmacy among them and the consequent harmful effects. For the individual elderly person: "less is more" if the person is inappropriately overprescribed with consequent harmful effects to be managed by deprescription; "less is less" if the person is a victim of missed treatment opportunity and underprescribed for a condition that will benefit from appropriate prescription. In clinical practice, this boils down to medication review, looking at the whole person, appropriate prescription/deprescription in context, and discussion on goals of care during a clinical encounter of an individual elderly patient.

Returning to the case vignette, medication review with the patient's son, who supervised his medication taking, showed that the patient had been taking his prescribed drugs regularly except melatonin, lactulose, citalopram and donepezil, the last two being newly prescribed half year ago. His son had initially withheld citalopram and donepezil from his father for fear of side-effects mentioned in an internet search until two months ago, when a psychiatrist advised his son to start his father on citalopram for irritability and a hot temper. A month later, the patient was noted to be mentally slow with worsened cognition, and was brought to see a neurologist, who advised stopping citalopram and starting donepezil.

The patient's new onset of urinary and faecal incontinence, which resulted in breakdown of his independence stressing on his family, was likely precipitated by the cholinergic side-effect of donepezil,[39-41] and predisposed by his reduced walking speed after strokes. His recent instability and falls were secondary to postural hypotension due to dehydration (reflected by a high urea/creatinine ratio and haemoconcentration) and bradycardia; the former from deliberate self-restriction of fluid intake to avoid urinary incontinence; while the latter from the additive cholinergic side-effect of donepezil and beta-blocking effect of betaloc. Postural hypotension could also reduce his cerebral perfusion and worsen his cognition. His cognitive decline soon after the use of citalopram was likely related to the anticholinergic action of citalopram.[42] Since donepezil use had been brief (one month) and at a low dose (5mg daily), the patient was advised to stop the culprit drug donepezil without any concern on withdrawal problem. He was also advised to take liberal fluid intake, and this together with stopping donepezil, would help minimise postural hypotension and fall risk, and enhance perfusion to his brain and kidneys. He had made sufficient recovery from his previous two strokes in his physical and cognitive function to independence in stick walking and activities of daily living, and his innate desire to retain independence supported the continuation of anticoagulation to prevent another stroke. Anticoagulation also helps to reduce the risk of atrial fibrillation-related cognitive decline.[43] The advice to him above helped to improve the benefit (stroke and dementia risk reduction in atrial fibrillation) to risk (bleeding) ratio of anticoagulant use through reducing fall risk from postural hypotension and bleeding risk from anticoagulant excess secondary to reduced renal clearance. Bleeding risk may further be reduced by changing to another anticoagulant less dependent on renal clearance for its elimination (e.g. apixaban) and using a dose adjusted for renal function. Home blood pressure monitor was advised to guide optimal treatment of his hypertension without

aggravating postural hypotension from zealous anti-hypertensive treatment. Counselling was given to his family on viewing challenging behaviours from the patient's perspective: as a mode of communication of unmet needs to be met by appropriate positive behaviour support.[44] Cognitive stimulation activities (6 Arts games, https://www.eng.hkada.org.hk/) were introduced to the patient and his family. The patient and his family were reassured that his recent physical and mental functional decline was likely drug-related and potentially reversible with drug withdrawal and hydration. The patient would be reviewed in one month, when a correspondence letter would be written to the Medical Clinic to update his condition and the medication optimisation made.

References

1. Davies EA, O'Mahony MS. Adverse drug reactions in special populations - the elderly. Br J Clin Pharmacol 2015;80(4):796-807. DOI: 10.1111/bcp.12596.
2. Brocklehurst JC. The geriatric service and the day hospital. In: Brocklehurst JC, ed. Textbook of Geriatric Medicine and Gerontology. 3rd ed. London, England: Churchill Livingstone; 1985:982-995.
3. Kong T-k. Development and practice of geriatric medicine. In: Kong T-k, ed. The Hong Kong Geriatrics Society Curriculum in Geriatric Medicine. 2nd ed. Hong Kong: Hong Kong Academy of Medicine Press; 2017:1-14. (http://www.hkgs.org/image/files/HKGS-2nd-Curriculum-ebook-HKGS%20copy.pdf)
4. Tinetti M, Huang A, Molnar F. The Geriatrics 5M's: A New Way of Communicating What We Do. J Am Geriatr Soc 2017;65(9):2115-2115. DOI: 10.1111/jgs.14979.
5. Monette PJ, Schwartz AW. Optimizing Medications with the Geriatrics 5Ms: An Age-Friendly Approach. Drugs Aging 2023:1-6. DOI: 10.1007/s40266-023-01016-6.
6. The Royal College of Physicians of London. Medication for older people. 2nd ed, 1997.
7. Jennings ELM, Murphy KD, Gallagher P, O'Mahony D. In-hospital adverse drug reactions in older adults; prevalence, presentation and associated drugs-a systematic review and meta-analysis. Age Ageing 2020;49(6):948-958. DOI: 10.1093/ageing/afaa188.
8. Liew TM, Lee CS, Goh SKL, Chang ZY. The prevalence and impact of potentially inappropriate prescribing among older persons in primary care settings: multilevel meta-analysis. Age Ageing 2020;49(4):570-579. DOI: 10.1093/ageing/afaa057.
9. Pérez T, Moriarty F, Wallace E, McDowell R, Redmond P, Fahey T. Prevalence of potentially inappropriate prescribing in older people in primary care and its association with hospital admission: longitudinal study. Br Med J 2018;363:k4524. DOI: 10.1136/bmj.k4524.
10. Muhlack DC, Hoppe LK, Weberpals J, Brenner H, Schöttker B. The Association of Potentially Inappropriate Medication at Older Age With Cardiovascular Events and Overall Mortality: A Systematic Review and Meta-Analysis of Cohort Studies. J Am Med Dir Assoc 2017;18(3):211-220. DOI: 10.1016/j.jamda.2016.11.025.
11. Saraf AA, Petersen AW, Simmons SF, et al. Medications associated with geriatric syndromes and their prevalence in older hospitalized adults discharged to skilled nursing facilities. J Hosp Med 2016;11(10):694-700. DOI: 10.1002/jhm.2614.
12. Akkawi M, Mohd Taufek N, Abdul Hadi A, Nik Lah NN. The prevalence of prescribing medications associated with geriatric syndromes among discharged elderly patients. Journal of pharmacy & bioallied science 2020;12(6):747-751. DOI: 10.4103/jpbs.JPBS_305_19.
13. Thompson W, Farrell B. Deprescribing: what is it and what does the evidence tell us? Can J Hosp Pharm 2013;66(3):201-2. DOI: 10.4212/cjhp.v66i3.1261.
14. Wang J, Shen JY, Conwell Y, et al. How "age-friendly" are deprescribing interventions? A scoping review of deprescribing trials. Health Serv Res 2023;58 Suppl 1:123-138. DOI: 10.1111/1475-6773.14083.
15. American Geriatrics Society 2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults. J Am Geriatr Soc 2023. DOI: 10.1111/jgs.18372.
16. O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. STOPP/START criteria for potentially inappropriate prescribing in older people: version 2. Age Ageing 2015;44(2):213-8. DOI: 10.1093/ageing/afu145.
17. Seppala LJ, Petrovic M, Ryg J, et al. STOPPFall (Screening Tool of Older Persons Prescriptions in older adults with high fall risk): a Delphi study by the EuGMS Task and Finish Group on Fall-Risk-Increasing Drugs. Age Ageing 2021;50(4):1189-1199. DOI: 10.1093/ageing/afaa249.
18. Curtin D, Gallagher P, O'Mahony D. Deprescribing in older people approaching end-of-life: development and validation of STOPPFrail version 2. Age Ageing 2021;50(2):465-471. DOI: 10.1093/ageing/afaa159.
19. Mizokami F, Mizuno T, Kanamori K, et al. Clinical medication review type III of polypharmacy reduced unplanned hospitalizations in older adults: A meta-analysis of randomized clinical trials. Geriatr Gerontol Int 2019;19(12):1275-1281. DOI: 10.1111/ggi.13796.
20. van der Spek K, Koopmans R, Smalbrugge M, et al. The effect of biannual medication reviews on the appropriateness of psychotropic drug use for neuropsychiatric symptoms in patients with dementia: a randomised controlled trial. Age Ageing 2018;47(3):430-437. DOI: 10.1093/ageing/afy001.
21. Verma A, Saha S, Jarl J, Conlon E, McGuinness B, Trépel D. An Overview of Systematic Reviews and Meta-Analyses on the Effect of Medication Interventions Targeting Polypharmacy for Frail Older Adults. J Clin Med 2023;12(4). DOI: 10.3390/jcm12041379.
22. Ibrahim K, Cox NJ, Stevenson JM, Lim S, Fraser SDS, Roberts HC. A systematic review of the evidence for deprescribing interventions among older people living with frailty. BMC Geriatr 2021;21(1):258. DOI: 10.1186/s12877-021-02208-8.
23. Bloomfield HE, Greer N, Linsky AM, et al. Deprescribing for Community-Dwelling Older Adults: a Systematic Review and Meta-analysis. J Gen Intern Med 2020;35(11):3323-3332. DOI: 10.1007/s11606-020-06089-2.
24. Scott IA, Hilmer SN, Reeve E, et al. Reducing Inappropriate Polypharmacy: The Process of Deprescribing. JAMA Internal Medicine 2015;175(5):827-834. DOI: 10.1001/jamainternmed.2015.0324.
25. Woodford HJ, Fisher J. New horizons in deprescribing for older people. Age Ageing 2019;48(6):768-775. DOI: 10.1093/ageing/afz109.
26. Evans JG. Evidence-based and Evidence-biased Medicine. Age Ageing 1995;24(6):461-463. DOI: 10.1093/ageing/24.6.461.
27. Wang Z, Denys I, Chen F, et al. Complete atrioventricular block due to timolol eye drops: a case report and literature review. BMC pharmacology & toxicology 2019;20(1):73. DOI: 10.1186/s40360-019-0370-2.
28. Doherty AJ, Boland P, Reed J, et al. Barriers and facilitators to deprescribing in primary care: a systematic review. BJGP Open 2020;4(3). DOI: 10.3399/bjgpopen20X101096.
29. Okeowo DA, Zaidi STR, Fylan B, Alldred DP. Barriers and facilitators of implementing proactive deprescribing within primary care: a systematic review. Int J Pharm Pract 2023;31(2):126-152. DOI: 10.1093/ijpp/riad001.
30. Brunner L, Rodondi N, Aubert CE. Barriers and facilitators to deprescribing of cardiovascular medications: a systematic review. BMJ open 2022;12(12):e061686. DOI: 10.1136/bmjopen-2022-061686.
31. Stewart C, Gallacher K, Nakham A, et al. Barriers and facilitators to reducing anticholinergic burden: a qualitative systematic review. Int J Clin Pharm 2021;43(6):1451-1460. DOI: 10.1007/s11096-021-01293-4.
32. Akande-Sholabi W, Ajilore CO, Ilori T. Evaluation of physicians' knowledge of deprescribing, deprescribing tools and assessment of factors affecting deprescribing process. BMC Prim Care 2023;24(1):31. DOI: 10.1186/s12875-023-01990-1.
33. Mohottige D, Manley HJ, Hall RK. Less is More: Deprescribing Medications in Older Adults with Kidney Disease: A Review. Kidney360 2021;2(9):1510-1522. DOI: 10.34067/kid.0001942021.
34. Tallis RC. Prescribing in the elderly a suitable case for (computer) treatment? In: Tallis RC, Caird FI, eds. Advanced Geriatric Medicine. Edinburgh, London, Melbourne, New York: Churchill Livingstone; 1986:3-10.
35. Dalton K, O'Brien G, O'Mahony D, Byrne S. Computerised interventions designed to reduce potentially inappropriate prescribing in hospitalised older adults: a systematic review and meta-analysis. Age Ageing 2018;47(5):670-678. DOI: 10.1093/ageing/afy086.
36. O'Mahony D, Gudmundsson A, Soiza RL, et al. Prevention of adverse drug reactions in hospitalized older patients with multi-morbidity and polypharmacy: the SENATOR* randomized controlled clinical trial. Age Ageing 2020;49(4):605-614. DOI: 10.1093/ageing/afaa072.
37. Martinez-Gomez D, Guallar-Castillon P, Higueras-Fresnillo S, Banegas JR, Sadarangani KP, Rodriguez-Artalejo F. A healthy lifestyle attenuates the effect of polypharmacy on total and cardiovascular mortality: a national prospective cohort study. Scientific reports 2018;8(1):12615. DOI: 10.1038/s41598-018-30840-9.
38. Abraha I, Rimland JM, Trotta FM, et al. Systematic review of systematic reviews of non-pharmacological interventions to treat behavioural disturbances in older patients with dementia. The SENATOR-OnTop series. BMJ open 2017;7(3):e012759. DOI: 10.1136/bmjopen-2016-012759.
39. Shaw C, Wagg A. Urinary and faecal incontinence in older adults. Medicine 2021;49(1):44. DOI: 10.1016/j.mpmed.2020.10.012.
40. Lisi DM. Fecal incontinence: possible role for drug-induced etiology. J Am Geriatr Soc 2011;59(1):161-2; author reply 162-3. DOI: 10.1111/j.1532-5415.2010.03211.x.
41. Dementia talking point: Donepezil and bowel incontinence. Alzheimer's Society. (https://forum.alzheimers.org.uk/threads/donepezil-and-bowel-incontinence.90887/).
42. Culang ME, Sneed JR, Keilp JG, et al. Change in cognitive functioning following acute antidepressant treatment in late-life depression. Am J Geriatr Psychiatry 2009;17(10):881-8. DOI: 10.1097/jgp.0b013e3181b4bf4a.
43. Bodagh N, Kotadia I, Gharaviri A, et al. The Impact of Atrial Fibrillation Treatment Strategies on Cognitive Function. J Clin Med 2023;12(9). DOI: 10.3390/jcm12093050.
44. James IA, Reichelt K, Shirley L, Moniz-Cook E. Management of Agitation in Behaviours That Challenge in Dementia Care: Multidisciplinary Perspectives on Non-Pharmacological Strategies. Clinical interventions in aging 2023;18:219-230. DOI: 10.2147/cia.S399697.

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Advance Care Planning for Older Adults: Overcoming the Barriers

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Advance care planning (ACP) is a process of communication, intended for individuals to facilitate proactive decision-making while they are mentally competent on future care, especially at serious illnesses situations and end-of-life settings. One overseas multidisciplinary Delphi panel reaches a consensus definition of ACP as follows: Advance Care Planning is a process that supports adults at any age or stage of health in understanding and sharing their personal values, life goals, and preferences regarding future medical care.[1] There has been much effort to promote the understanding of advance care planning to the public by Hospital Authority,[2] and Government is also seeking to pass legislation on Advance Directive(AD) and dying in place.[3] In 2016, a survey by the Federation of Medical Societies of Hong Kong on 775 public citizens and 779 doctors and dentists showed that 80 % of public and 88 % of professionals would consider making AD when facing advanced and serious illnesses. 63 % and 67 % respectively supported legislation of AD to safeguard the patients' decisions.[4] A qualitative study interviewing patients, families, health professionals, and hospital volunteers indicated also the need for more promotion of AD in the society.[5]

PROMOTING THE BENEFITS OF ACP

ACP discussion is an integral part of communication in the care for advanced diseases. Potential benefits are myriad, ranging from better understanding of patients' preferences, earlier anticipation of future plans, more proactive facilitation of family discussions, to ensuring respect for patients' decisions and autonomy, and smaximising comfort and dignity at the end of life.[6] One of the first randomised controlled trials of ACP in older adults of 80 years old and above showed that there was a significant improvement in respecting end-of-life wishes, patients' and families' satisfaction, and families' stress, anxiety and depression in the intervention group that receive ACP in addition to usual care.[7] A systematic review and meta-analysis in 2014 confirmed the efficacy of ACP interventions in concordance between preferences for care and delivered care.[8] More recent meta-analyses demonstrated mixed evidence of the impact of ACP on patients' outcomes,[9,10] and that the communication components of ACP were the more important factor in influencing positive outcomes.[9] As for the impact of ACP on caregivers, one meta-analysis also showed ACP had a large and significant improvement in congruence in end-of-life care preferences between caregivers and patients.[11]

Although enhancement in understanding the concept and benefit of ACP has been realised in recent years, implementation in wider clinical practice requires further engagement and dissemination of knowledge and experience. The uptake of ACP and AD completion is still low. What are the barriers that need to be overcome in the clinical context?

CLARIFYING COMMON MISCONCEPTIONS IN ACP

There are common misconceptions in ACP that need to be clarified. It certainly is not about rationing treatment options, but rather discussing the choices and options as per patients' values and preferences. It is not imposing a one-off decision, but instead is a dynamic process of the continuum to be regularly reviewed. It is not about introducing an un-informed plan of treatment, but explaining more about current and future treatment plans in preparation for uncertainties. It is not painting a pessimistic picture, but instead offering support and hope when addressing the likely decline in a known disease trajectory. It is not giving up, but being better prepared for adverse scenarios. It is not a failure if no advance care decisions can be made at a certain point in time, as future in-the-moment decisions can be easier and better facilitated with prior discussions.

UNDERSTANDING THE PERSPECTIVES FROM OLDER ADULTS

Older people are more vulnerable to decline in health with sudden deterioration, and prior exploration and ascertainment of older people's wishes and perspectives in future care plans would be beneficial. But not all old people are willing or ready, and it is pertinent for healthcare professionals to understand their broad concerns and the individual perspectives.

In a recent local research, the audio-recorded ACP conversations of 22 frail old subjects who decided not to document an AD upon completing ACP intervention in a randomised control trial were reviewed in depth.[12] The participants of this randomised controlled trial were hospitalised patients older than 60, frail yet clinically stable, cognitively intact and able to communicate in Chinese. Three themes emerged from the thematic analysis. The first theme is on refraining from discussing end-of-life care, with sub-themes of wishful thinking, feeling uncomfortable with the topic, finding

the information difficult to understand, and viewing saving lifes as an over-riding goal of care. Examples of quotes are as follows: "I want my health to be better and better ….no more worsening"; "I have a headache when I think of this topic"; "I don't know how to choose…I don't understand…I will think about it when the time comes".

The second theme is on remaining in the here and now, with sub-themes of feeling no urgency in discussing ACP, letting nature take its course, and living in the present moment. Examples of quotes are as follows: "it's hard to tell the future as my health condition could change.. "; "just let it be…God has a plan on when to take you away"; "the most important thing for me is that I can take care of myself and dine in a restaurant. Other than that, I have nothing to hope for".

The third theme is on relinquishing responsibility over end-of-life care decision-making, with sub-themes of having trust in healthcare professionals, allowing flexibility for family members, and supporting shared decision-making. Examples of quotes are as follows: let the doctor decide…because I trust him; " let my son make the decision"; "I will let my wife decide because I am not capable of making decisions".

Understanding of perspectives from older patients are important, so as to better address their concerns, with more targeted explanation of the benefits that patients may not be aware of.

ENGAGING THE PATIENTS, FAMILIES AND PUBLIC

ACP is still very much a new concept to most Chinese, especially for the older age groups. To overcome the issue of lack of knowledge, a much wider promotion of ACP is urgently needed, especially with the prospect of legislation of AD in future. Health literacy in relation to AD should not be limited to just ACP conversations, but to the general knowledge of the common advanced diseases that our elderly population are facing. This necessitates the inclusion in ACP discussion not just the future care plan, but also the older patients' understanding of the current care plan and disease trajectory. While denial of ageing and future decline may be understandable at times, life and death education can always be promoted. Contents of such educational initiatives should always be conducted with hope and compassion, rather than despair and negativity.

While living in the present moment can be a positive coping in facing future uncertainties and adversaries, ACP need not be a contrary axiom to this. Many Chinese colloquial sayings like "getting prepared with both hands", or "preparing the window pane before it rains" illustrate this as equally an important preparatory strategy in Chinese culture. ACP discussions, like many other medical or health interventions, need to be individualised and personalised. ACP decisions must not be forced, when the patients are not ready or prepared. Time and patience should be offered. ACP decision is a dynamic process, with patients understanding more the need as health condition deteriorates. Even if no AD or ACP decisions can be made after fruitful discussions, the benefit can still be seen when the need arises and patients and families have to make in-the-moment decisions during a crisis or emergency. Previous discussions can help make decisions easier when the moment comes. Many case histories can bear witness to this.

Chinese culture is different from the West, with more emphasis on the family values and collective decision making. Relational autonomy can be as important as self-determination, if not more, as seen in the quotes of the above study. Yet, not all family members are comfortable or confident in making such decisions when being delegated. They need to understand clearly the patients' values and beliefs regarding treatment choices, in order to help make the decisions for the best interests. Family members need to be included early in ACP decisions, for a better mode of shared decisional making between health professionals, patients and families. Understanding of current care plan and prognosis by family members is also an important pre-requisite. Promotion of ACP and AD indeed needs to be broadly extended to all sections and strata of society, and different stakeholders of health, legal and social disciplines in general.

ADDRESSING THE PATIENTS, PROFESSIONALS AND SYSTEM FACTORS

ACP facilitates the identification and documentation of patients' treatment preferences, especially at the end of life, and the goals align with that of palliative care. Yet the perspectives of patients with serious illnesses need to be understood, too, with any barriers to be identified for successful implementation. A local qualitative study on advanced cancer patients and family members identified four barriers to ACP[13]: i. limited patients' participation in autonomous decision making; ii. cognitive and emotional barriers; iii. lack of readiness and awareness of early discussion; iv. unprepared health care professionals and health care system. A meta-synthesis on older adults' perception of advance care planning in preparation for end of life care yielded also similar findings, namely on psychosocial preparedness, medical preparedness, psychological barriers and extrinsic barriers.[14]

Perceived barriers exist among health professionals, too, in both primary care and hospital setting. A cross-sectional self-administered survey from family physicians and other health professionals in primary care in Canada rated insufficient time, inability to electronically transfer ACP documents across care settings, decreased interactions with patients owing to care transfer, patients difficulty understanding limitations and complications of treatment, and professionals' own lack of knowledge as main barriers.[15] On the other hand, themes identified as potential enablers from the study included greater public engagement, clinician attitudes, creating capacity for clinicians, integrating ACP into practice, and system and policy supports.[15] A systematic review summarised with mainly two most important barriers as perceived by nurses: lack of education and insufficient time.[16]

While ACPs can enable patients to discuss and make known their treatment and care preferences early in preparation at end of life with clear benefits, their facilitation can pose significant challenges. Knowledge of barriers and enablers such as those listed above will alert professionals to address these issues and overcome the barriers. Findings from another systematic review suggested that specially prepared staff utilising a structured approach to interactions around ACP as a significant factor in facilitating implementation.[17] Authors from this study, however also suggested that doing more of the things that facilitate the delivery of ACPs will not reduce the effects of those things that undermine them. Interventions most likely to meet with success are those that make elements of ACP workable within complex and time-pressured clinical workflows.[17]

THE WAY FORWARD

Locally in Hong Kong, with our escalating ageing population with chronic and advanced diseases, it is timely to pursue the promulgation of ACP with the legislation of AD. There is, however, a pressing need for more education, training and promotion. Misconceptions still need to be clarified. Professionals, patients with their families, and the public have to be actively engaged. More perspectives from older patients, especially those with serious and advanced illnesses, and the opinion of family members are to be heard. It is important to take our Chinese cultural context into consideration. Logistics and issues in hospitals, communities, Government and non-government organisations would be addressed at different systems levels.

References

1. Sudore Rl, Lum HD, You JJ, Hanson LC, Meier DE, Pantilat SZ, Matlock DD, Rietjens JAC, Korfage IJ, Ritchie CS, Kutner JS, Teno JM, Thoma J, MacMahanRD, Heyland DK. Defining advance care planning for adults: a consensus definition from a multidisciplinary Delphi panel. Journal of Pain and Symptom Management 2017 May 53(5):821-832.e1
2. Hospital Authority Clinical Ethics Committee. Advance care planning? Advance Directives? Do not attempt cardiopulmonary resuscitation? Patients and families should know more! Hospital Authority 2019
3. Food and Health Bureau Consultation Document. End-of-life care: Legislative Proposals on Advance Directive and Dying in Place. Sept 2019
4. The Federation of Medical Societies of Hong Kong Foundation. Survey on care for advanced diseases and palliative services. The Hong Kong Medical Diary 2016; vol 21: issue 11; 35-36
5. Chan CW, Wong MM, Choi KC, Chan HY, Chow AY, Lo RS, Sham MM. What patients, families, health professionals and hospital volunteers told us about advance directives. Asia Pacific Journal of Oncology Nursing 2019; 6(1);72-77.
6. Lo RSK, Communication in care for advanced diseases. The Hong Kong Medical Diary 2020 July Vol 25; no 7: 33-35
7. Detering KM, Hancock AD, Reade MC, Silvester W. The impact of advance care planning on end of life care in elderly patietns: randomised controlled trial. British Medical Journal 2020; 340:c1345
8. Houben CHM, Spruit MA, Gronen MTJ,Wouters EFM, Janssen DJA. Efficacy of advance care planning: a systematic review and meta-analysis. Journal of American Directors Association 2014 July;15(7):477-489
9. Levoy K, Sullivan SS, Chittams J, Myers RL, Hickman S, Meghami SH. Don't throw the baby out with the bathwater: Meta-analysis of advance care planning and end-of-life cancer care. Journal of Pain and Symptom Management 2003 June; 65(6); e715-743
10. Malhotra C, Shafiq M, Batcagan-Abueg APM. What is the evidence for efficacy of advance care planning in improving patient outcomes? A systematic review of randomised controlled trials. British Medical Journal Open 2022;12:e060201
11. Malhotra C, Huynh VA, Shafiq M, Batcaga-Abueg APM. Advance care planning and caregiver outcomes: intervention efficacy-systematic review. British Medical Journal Supportive Care 2022 July4:bmjspare-2021-003488.
12. Wan Z, Chan HYL, Chiu PKC, Lo RSK, Cheng HL, Yeung DYP. Experiences of older adults with frailty not completing an advance directive: a qualitative study of ACP Conversations. International Journal of Environmental Research and Public Health 2022,19,5358
13. Cheung TK, Au D, Ip AHF, Chan J, Ng K, Cheung L, Yuen J, Hui E, Lee J, Lo R, Woo J. Barriers to advance care planning: a qualitative study of seriously ill Chinese patients and their families. BMC Palliative Care 2020; 19:80
14. Tang JMS, Cher BXBB, Lim SF, Siah CJR. A meta-synthesis on the older adults' perspective of advance care planning. Journal of Clinical Nursing 2023;00:1-19
15. Howard M, Bernard C, Klein D, Elston D, Tan A, Slaven M, Barwich D, You JJ, Heyland D. Barriers to and enablers of advance care planning with patients in primary care. Canadian Family Physician 2018 Apr; 64(4):e190-e198
16. Blackwood DH, Walker D, Mythen MG, Taylor RM, Vindrola-Padros C. Barriers to advance care planning with patients as perceived by nurses and other health care professionals: a systematic review. Journal of Clinical Nursing 2019 Dec; 28(23-24): 4276-4297
17. Lund S, Richardson A, May C. Barriers to advance care planning at the end of life: an explanatory systematic review of implementation studies. Plos One 10(2):e0116629.doi:10.1371/journal.pone.0116629

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References: 1. Chin Chua M, et al. JPGN 2017;65:102-6. 2. Phavichitr et al. Scientific Reports, 2021; 11:3534. 3. Martin R et al. Appl Environ Microbiol 2009;75:965-969. 4. Wong C, B et al. Nutrients 2019. 5. Coulier L et al. 2009; J. Agagric. Food Chem.;57, 8488– 8495. 6. Boehm G, et al. (2003) Acta Paediatr Suppl. 91(441):64-7. 7. Stahl B et al. Anal Biochem 1994; 223,218-226.

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Caring for Our Ageing Population Interview with Dr Donald Kwok-tung LI

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The ageing population in Hong Kong remains an intensifying concern. With declining birth rates and recent migration wave, the appropriate care for elderly in community is becoming an even harder issue to address.

In this issue on Geriatrics, we have invited Dr Donald Kwok-tung Li, the newly-appointed chairman of the Hong Kong Elderly Commission, to share his vision and ideas for improving elderly care in Hong Kong.

1. THE IMPORTANCE OF PRIMARY CARE FOR OLDER PEOPLE

Q: *What Are The Direction And Main Objectives Of The Elderly Commission For The Next Couple Of Years?*

The healthcare system in Hong Kong is hospital-centric, with well-developed and affordable public hospitals providing comprehensive and high-quality medical services. As a result, population generally seek medical care in public hospitals, leading to a long-term high demand for hospital services, with long waiting times for specialists and overcrowding in the Accident and Emergency Departments. Even during the 2019 coronavirus epidemic, many elderlies and patients had to wait for treatment in outdoor areas, which was far from ideal. Dr Li believes that "Primary Care" or care provided in the community is the way to improve the elderly healthcare service in Hong Kong.

The general public tends to ignore the importance of prevention and only seek medical care when they are sick. Therefore, the role of "primary care" should shift from "treating diseases" to "preventing diseases", and should start from the community level. This is even more important for the older population.

Dr Li believes that the District Health Centers (DHC) and DHC Express, located in the 18 districts of Hong Kong, can become a place to provide primary care, serving as the first contact point between citizens and the medical system. In addition to managing, maintaining, and improving the health of older citizens at the community level, it can also become a platform for medical-social integration. This can alleviate the workload of public hospitals and reduce waiting times for patients. In addition, doctors can refer patients to DHCs based on the patients' residences, regardless of where the clinic is located, making medical services and local follow-up actions more closely aligned.

2. MEDICAL-SOCIAL INTEGRATION

Q: *How Can The Medical And Social Services Be Better Integrated?*

Local non-governmental organisations (NGOs) have a better understanding of the healthcare needs of their communities, so the development of District Health Centers (DHCs) relies heavily on medical-social integration. In fact, DHCs are managed by local NGOs and have now been optimised to have a complete medical team, making them excellent partners for private doctors in the community. For example, for older patients with high blood pressure and diabetes, the primary care team in the DHCs can remind them to have regular physical check-ups, and measure their blood pressure and blood sugar level. It is desirable to provide holistic, comprehensive, continuing, coordinated, and person-centred care for the citizens, in the communities where they belong and reside. Preventive treatment can greatly reduce the chances of the onset or worsening of common chronic diseases, thereby reducing citizens' medical expenses and hospital pressure. Primary care also provides a favourable factor for community ageing, thus resolving the long-standing problem of inadequate residential care facilities.

3. THE CHALLENGES IN ELDERLY RESIDENTIAL CARE HOMES

Q: *What Are The Most Pressing Challenges In Elderly Residential Care Homes In Hong Kong, And What Are Your Thoughts On Addressing These Issues?*

Due to the scarce land resources in Hong Kong and the busy younger generation who also need to take care of young family members, elderly homes have become the choice for a lot of families to accommodate the senior. However, jobs in the elderly homes may have always been mistakenly associated with unpleasant work with no promotion channels which discourage people who are new to the labour market or re-entering the job market. In addition, the manpower shortage and the high demand for elderly home beds also make the provision of elderly care services difficult.

To solve the manpower problem, Dr Li believes there should be promotion career pathways and prospects for

elderly health care workers. For example, healthcare workers can become training instructors who do not only train staff, but also train the elderly new skills to help them stay more connected to society. Later, instructors can be promoted to health managers. In addition to establishing promotion pathways for elderly care home staff, it is also necessary to optimise the administrative procedures of elderly homes, such as the way elderly enter and leave hospitals, and how to share the latest health information with hospitals/clinics to ensure effective treatment plans.

4. TO RESPECT AND LOVE OUR SENIOR

Q: *How Can We Further Promote Filial Piety And Family Harmony In Hong Kong?*

"Respecting and loving the elderly is an important traditional Chinese value", Dr Li believes that the younger generation should deepen their understanding of "respecting and loving the elderly", and appreciate that having an elderly who age at home is not necessarily a burden. When education and support is in place, young people will be willing to spend time taking care of the elderly, thereby promoting ageing at home.

In Hong Kong, there are many difficulties in achieving ageing at home. In addition to worrying about the physical safety of elderly family members, family members are also concerned about their psychological health. Therefore, society should actively promote the development of community day care centres for the elderly, allowing the elderly to participate in and enjoy meaningful activities and socialise with peers from morning till 6 pm. The elderly can share their joyful day activities over dinner with their younger family members in the evening. Day care support can alleviate the younger generations' concern, and promote the elderly connectedness with society while ageing at home. With more younger family members accepting ageing at home, the number of elderly needing to enter nursing homes can be reduced.

5. GOVERNMENT POLICY ON HOUSING AND FUNDING FOR THE ELDERLY

Q: *What Are The Current Directions Of Government Policies In Caring For Our Older Population?*

Primary healthcare is an important part of improving ageing in Hong Kong. On November 29, 2017, the Steering Committee on Primary Healthcare Development was established to make recommendations on manpower and infrastructure planning, collaboration models, community engagement, planning and evaluation frameworks, and strategy formulation for primary healthcare in Hong Kong.

The accommodation space in elderly homes is also crucial. Fortunately, under the Policy Address, new development areas must increase the ratio of community elderly care. This provides new development space for increasing the number of beds in elderly homes.

The government also understands the impact of financial conditions and medical expenses on the daily lives of the elderly. Therefore, the government will increase the flexibility of the Elderly Health Care Voucher Scheme. In addition to being able to share with spouse, the vouchers can also be accumulated up to HK$8,000 and used for treatment, rehabilitation, and different preventive care services, such as health assessments, dental checks, and traditional Chinese medicine consultations.

6. CARE FOR CARERS

Q: *How Can The Society Do Better In Caring For Carers?*

"Care for Carers" is the top priority of the Elderly Commission. Caregivers are a vital human resource for community ageing in Hong Kong, and are usually the children of the elderly. As Hong Kong is one of the world's regions with the highest life expectancy, caregivers are already middle-aged or older citizens themselves. The Commission is working to promote community respite services to share the care pressure of caregivers. At the same time, it also hopes to improve the knowledge and skills of caregivers and domestic helpers in caring for the elderly through various educational programmes, such as on topics like hygiene and health warning signs.

7. EMBRACING AGING AND TIPS FOR A POSITIVE LIFE UPON RETIREMENT

Q: *Any Smart Tips For Positive Ageing?*

As Dr Leong Chi-hung said, age is just a number. Dr Li suggests that everyone should fully understand their strengths and accept the fact that their physical condition decline as they age. The rich experiences and knowledge of the elderly are exactly what the younger generation needs. The elderly can take on the role of advisors or mentors, thereby building a positive image. At the same time, the elderly should also adjust their attitudes and expectations and not compare themselves with others.

8. DEVELOPING RECREATIONAL INTERESTS IN AGEING

Q: *Please Share With Us Your Social Interests And The Delights From It?*

As kindly shared by Dr Li, horse racing and swimming are very much his interests. Dr Li enjoys analysing

horses, looking for points others may not see. Betting on horses and winning races brings him a sense of excitement and satisfaction. Horse racing is also a good topic for communication with people of different ages and social classes. On the other hand, swimming brings Dr Li a "social pause", as well as the peace of mind when he focuses on swimming. It also allows him to quietly contemplate work-related problems. Furthermore, Dr Li likes to personally buy ingredients and cook after trying new dishes outside, which not only allows him to unleash his creativity, but also provides an opportunity to gather with family and share delicious food. Dr Li further suggested that day centres could organise more cooking classes, allowing the elderly to showcase their skills, and taking the comfort food home to share with their children and grandchildren.

9. INSPIRATIONS

Q: *What Are The Inspirations And Advice From Your Late Father, Dr Henry Fook-Kuen Li, Past President Of FMSHK, That You Cherish The Most And Would Like To Share?*

Dr Li has a deep connection with the Federation of Medical Societies of Hong Kong, and his late father, Dr Henry Fook-kuen Li, was the President of the Federation from 1981 to 1985. Dr Li himself was an EXCO member of the Federation from 2002 to 2003.

Dr Li said that his father, Dr Henry FK Li, has always been an inspiration to him. Dr Li's father was a general practitioner and a qualified surgeon who provided comprehensive treatment for patients. Moreover, Dr Li's father was very diligent and believed in the motto "No Pain, No Gain" and that success only comes from hard work. Dr Li learned these values from his father and embodied them himself.

In the interview, it is evident that Dr Li has a deep affection for his father, which serve as a good example for our younger generation to respect our seniors and elders. From his vision for primary care and community centres, we can feel his genuine empathy and compassion for supporting the elderly in community. These humanistic suggestions not only help the elderly spend meaningful golden days with quality of life, but also promote the harmony and connections with their loved ones and families.

The Federation of Medical Societies of Hong Kong will endeavor to perpetuate our concerted efforts with members and partners, in contributing towards the care of our older population in Hong Kong.

Fig. 1. The late Dr Herry FK LI (4th from left) was the President of Federation on 1981 to 1985.

Fig. 2. Dr LI's distinguished family.
From left: Dr Donald Li, Mrs Li and Dr Herry Li.

Fig. 3. Cooking is one of Dr LI's social interest.

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References:
1. Zhang L, et al. J Gastroenterol Hepatol. 2022;37(5):823-831. 2. Visciglia A, et al. Probiotical Research srl, via Enrico Mattei n3, 28100 Novara. 3. Mogna L, et al. J Clin Gastroenterol. 2012;46 Suppl:S29-32. 4. Del Piano M, et al. J Clin Gastroenterol. 2014;48 Suppl 1:S56-61. 5. Dikeocha IJ, et al. Nutr Rev. 2021;80(1):22-49. 6. Yoon JS, et al. J Gastroenterol Hepatol. 2014;29(1):52-9.

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The Federation Presidents' and Editors' Dinner 2023

The Presidents' and Editors' Dinner 2023 of the Federation was held at the Sheraton Hong Kong Hotel & Towers on 3 June 2023 (Saturday). The event was a resounding success with fun and fraternity, having a total of 103 guests attending the Dinner. It was a great occasion for reunion post COVID for the Presidents and Editors of the Federation family.

We were honoured by the presence of Prof Lo Chung-mau, BBS, JP, Secretary for Health, at our Dinner. The speech was both informative and inspiring. The President, Prof Bernard Cheung welcomed all guests to the event. During the Dinner, our 1st Vice-President, Dr Ng Chun-kong introduced the secretarial services of Federation while the Hon. Secretary, Dr. Alson Wai-ming Chan reported on the major activities organised by the Federation. Our Honorary President and Editor-in-Chief of our Hong Kong Medical Diary, Dr Raymond Lo expressed his heartfelt gratitude to the Editorial Board members and Issue Editors of the Medical Diary, and highlighted the future directions of the Diary. Various mementoes and souvenirs were presented to the most supporting member societies, founding members, Issue Editors of the Medical Diary and collaborating partners of the vaccination programmes, to acknowledge their staunch support to the Federation. Several Presidents of our member societies were also invited to have a chit-chat session to share their positive experiences and impressions of the various services provided by the Federation.

We would like to express our deepest gratitude to Dr Edwin Chau-leung Yu and Dr Desmond Gia-hung Nguyen, who were our speakers for the Education Seminars held before the Dinner. We would also like to thank the Meetings & Exhibitions Hong Kong of the Hong Kong Tourism Board, AstraZeneca Hong Kong Limited, Merck Sharp & Dohme (Asia) Ltd and Pfizer Corporation Hong Kong Limited for their sponsorship towards the event. The evening was made more memorable by the delightful vocal performance by Medipella, comprised of Dr Victor Yeung, Dr Alan Ng, Dr Irene Yeung, Dr Kenny Kung and Dr Tomoko Matsuzono, who delighted the audience with their harmonious voices and impressive vocal range. Overall, the event was a marked accomplishment with the combination of stimulating discussion, inspiring sharing and opportunity for participants to connect with each other.


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CV: cardiovascular; RRR: relative risk reduction; ADA: American Diabetes Association; EASD: European Association for the Study of Diabetes; CVD: cardiovascular disease; OAD: oral antidiabetic drug; T2DM: type 2 diabetes mellitus

Reference: 1. Zinman B, et al. N Engl J Med. 2015;373(22):2117-2118. **2.** Jardiance Hong Kong Prescribing Information. **3.** Davies MJ, D'Alessio DA, Fradkin J,et al. Management of hyperglycaemia in type 2 diabetes, 2018. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetologia. 2018.

† JARDIANCE demonstrated RRR in CV death in adult patients with insufficiently controlled type 2 diabetes (baseline HbA1c 7-10%) and established CV disease (coronary artery disease, peripheral artery disease, or a history of myocardial infarction or stroke).[1]

‡ Standard of care included CV medications and glucose-lowering agents given at the discretion of physicians.[1]

§ Empagliflozin versus placebo on top of standard of care.[1]

Management of hyperglycemia in type 2 diabetes, 2018. A consensus report by the ADA and EASD stated that among patients with established CVD, there is likely cardiovascular benefit, with the evidence of benefit modestly stronger for empagliflozin than canagliflozin[3]

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						1
2	★Zoom Live Microbiome and Childhood Eczema: From Biomarkers to Novel Therapeutics 3	★In-person / Zoom Live HKMA-HKSH CME Programme 2022-2023 Topic: Applications Of Transcranial Magnetic Stimulation In Neurorehabilitation 4	★Zoom Live Common Sexually Transmitted Diseases and Their Management ★Certificate Course on Mental Health 2023 (Video Lectures) 5	★In-person Patient Counselling on Women's Health Disease: The Use of Hormonal Treatment ★Certificate Course in Allergy 2023 (Video Lectures) 6	★Zoom Live Is it necessary to have lung cancer screening in Hong Kong? 7	8
9	10	11	★The Hong Kong Neurosurgical Society Monthly Academic Meeting - The Era of ERAS - What Neurosurgeons Need to Know ★In-person / Zoom Live HKMA-CUHK Medical Centre CME Programme 2023 Common health problems for the elderly - Topic: Rectal Cancer Management - The Surgical Perspectives ★Certificate Course on Mental Health 2023 (Video Lectures) 12	★Certificate Course in Allergy 2023 (Video Lectures) 13	★In-person Dr., are my rashes really eczema? 14	15
16	17	★In-person / Zoom Live HKMA-GHK CME Programme 2023 - Update On Dementia And Mild Cognitive Impairment 18	★Certificate Course on Mental Health 2023 (Video Lectures) 19	★Zoom Live Overcoming challenges in Heart Failure management: What's the latest treatment approach for SGLT2 inhibitors? ★Certificate Course in Allergy 2023 (Video Lectures) 20	★Zoom Live Treatment for Insomnia Part 2 ★HKFMS Foundation Meeting ★FMSHK Executive Committee Meeting 21	22
23	★Zoom Live Rapid Onset with Long-term Maintenance: A New Paradigm in Treatment of Major Depressive Disorder (MDD) 24		★Certificate Course on Mental Health 2023 (Video Lectures) 26	★Certificate Course in Allergy 2023 (Video Lectures) 27	28	29
30	31	25				

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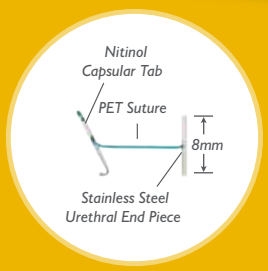

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*No instances of new, sustained erectile or ejaculatory dysfunction in the LIFT pivotal study.

1. Sønksen, 2015 Eur Urol, BPH Study; 2. Roehrborn, 2015 Can J Urol, 5 yr results of PUL LIFT study; 3. Roehrborn, Can J Urol 2017 LIFT Study; 4. AUA BPH Guidelines 2003, 2020; 5. Naspro, Eur Urol 2009; 6. Montorsi, J Urol 2008; 7. McVary, J Sex Med 2016; 8. Roehrborn, Can J Urol 2017; 9. Roehrborn J Urology 2013 LIFT Study; 10. Roehrborn et a. Can J Urol 2017; 11. Shore Can J Urol 2014; 12. Bachmann, European Eurol 2013; 13. Mollengarden, Prostate Cancer Prostatic Dis 2018; 14. Gilling, J Urol 2017.

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Date / Time	Function	Enquiry / Remarks
3 MON 2:00 PM	**Zoom Live** **Microbiome and Childhood Eczema: From Biomarkers to Novel Therapeutics** Organiser: The Hong Kong Medical Association Speaker: Professor LEUNG Ting-fan	HKMA CME Dept. Tel: 2527 8452 1 CME Point
4 TUE 1:00 PM	**In-person / Zoom Live** **HKMA-HKSH CME Programme 2022-2023** **Topic: Applications Of Transcranial Magnetic Stimulation In Neurorehabilitation** Organiser: The Hong Kong Medical Association & The Hong Kong Sanatorium & Hospital Speaker: Dr TSOI Tak--hong Venue: HKMA Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road, Central, Hong Kong	HKMA CME Dept. Tel: 3108 2507 1 CME Point
5 WED 2:00 PM	**Zoom Live** **Common Sexually Transmitted Diseases and Their Management** Organiser: The HKMA District Health Network (Central, Western & Southern) Speaker: Dr WONG Hing-wing	Mr Peter HO Tel: 2527 8452 1 CME Point
7:00 PM	**Certificate Course on Mental Health 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr LAI Chi-lun	Ms Vienna LAM Tel: 2527 8898
6 THU 1:00 PM	**In-person** **Patient Counselling on Women's Health Disease: The Use of Hormonal Treatment** Organiser: The HKMA District Health Network (Kowloon East) Speaker: Dr Ivy Yin-yan ONG Venue: Crowne Plaza Hong Kong Kowloon East, 3 Tong Tak Street, Tseung Kwan O, Hong Kong	Mr Peter HO Tel: 2527 8452 1 CME Point
7:00 PM	**Certificate Course in Allergy 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr Philip H LI	Ms Vienna LAM Tel: 2527 8898
7 FRI 2:00 PM	**Zoom Live** **Is it necessary to have lung cancer screening in Hong Kong?** Organiser: The Hong Kong Medical Association Speaker: Dr Herbert Ho-fung LOONG	HKMA CME Dept. Tel: 3108 2507 1 CME Point
12 WED 7:30 AM	**The Hong Kong Neurosurgical Society Monthly Academic Meeting - The Era of ERAS - What Neurosurgeons Need to Know** Organiser: Hong Kong Neurosurgical Society Speaker(s): Dr HO Cheuk-him Chairman: Dr Jason Man-kit HO Venue: Conference Room, F2, Department of Neurosurgery, Queen Elizabeth Hospital; or via Zoom meeting	1.5 points College of Surgeons of Hong Kong Dr Calvin MAK Tel: 2595 6456 Fax. No.: 2965 4061
1:00 PM	**In-person / Zoom Live** **HKMA-CUHK Medical Centre CME Programme 2023** **Common health problems for the elderly - Topic: Rectal Cancer Management - The Surgical Perspectives** Organiser: The Hong Kong Medical Association & The CUHK-Medical Centre Speaker: Dr Janet Fung-yee LEE Venue: HKMA Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road, Central, Hong Kong	HKMA CME Dept. Tel: 3108 2507 1 CME Point
7:00 PM	**Certificate Course on Mental Health 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr HO Nga-lei	Ms Vienna LAM Tel: 2527 8898
13 THU 7:00 PM	**Certificate Course in Allergy 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr June KC CHAN	Ms Vienna LAM Tel: 2527 8898
14 FRI 1:00 PM	**In-person** **Dr., are my rashes really eczema?** Organiser: The HKMA District Health Network (Kowloon City) Speaker: Dr LEE Tze--yuen Venue: President's Room, Spotlight Recreation Club (博藝會), 4/F, Screen World, Site 8, Whampoa Garden, Hunghom, Kowloon	Mr Peter HO Tel: 2527 8452 1 CME Point
18 TUE 2:00 PM	**In-person / Zoom Live** **HKMA-GHK CME Programme 2023 - Update On Dementia And Mild Cognitive Impairment** Organiser: The Hong Kong Medical Association & The Gleneagles Hong Kong Hospital Speaker: Dr Jonathan Yim-pui CHU Venue: HKMA Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road, Central, Hong Kong	HKMA CME Dept Tel: 3108 2507 1 CME Point
19 WED 7:00 PM	**Certificate Course on Mental Health 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr Rommel CH HUNG	Ms Vienna LAM Tel: 2527 8898
20 THU 2:00 PM	**Zoom Live** **Overcoming challenges in Heart Failure management: What's the latest treatment approach for SGLT2 inhibitors?** Organiser: The Hong Kong Medical Association Speaker: Dr David Ka-yip LO	HKMA CME Dept. Tel: 3108 2507 1 CME Point
7:00 PM	**Certificate Course in Allergy 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr Marco HK HO	Ms Vienna LAM Tel: 2527 8898
21 FRI 2:00 PM	**Zoom Live** **Treatment for Insomnia Part 2** Organiser: The Hong Kong Medical Association Speaker: Dr Ben Kin-leung CHEUNG	HKMA CME Dept. Tel: 3108 2507 1 CME Point
7:00 PM	**HKFMS Foundation Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Council Chamber, 4/F, Duke of Windor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Ms Nancy CHAN Tel: 2527 8898
8:00 PM	**FMSHK Executive Committee Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Council Chamber, 4/F, Duke of Windor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Ms Nancy CHAN Tel: 2527 8898
24 MON 2:00 PM	**Zoom Live** **Rapid Onset with Long-term Maintenance: A New Paradigm in Treatment of Major Depressive Disorder (MDD)** Organiser: The Hong Kong Medical Association Speaker: Dr Gordon Chun-bun WONG	HKMA CME Dept. Tel: 3108 2507 1 CME Point
26 WED 7:00 PM	**Certificate Course on Mental Health 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr LAM Chun	Ms Vienna LAM Tel: 2527 8898
27 THU 7:00 PM	**Certificate Course in Allergy 2023 (Video Lectures)** Organiser: The Federation of Medical Societies of Hong Kong Speaker: Dr Agnes SY LEUNG	Ms Vienna LAM Tel: 2527 8898

Answers to Dermatology Quiz

Answers:

1. The diagnoses are lymphoedema and erysipelas.

2. The commonest causes of head and neck lymphoedema are surgery, radiation, or blockage of the lymph nodes or vessels by tumours in cancer patients. It usually occurs from weeks to months after concurrent chemoradiation.

   Erysipelas is a relatively common superficial bacterial infection, usually caused by Streptococcus pyogenes (group A β-haemolytic streptococci). Legs are actually the commonest site of involvement, rather than the face as shown in many textbooks. The rash is due to an exotoxin of the Streptococcus bacteria, which may be found in sites other than the skin, such as asymptomatic nasopharyngeal infection. Clinically erysipelas can be distinguished from cellulitis by its well-demarcated raised border and bright redness. In contrast, cellulitis has a relatively indistinct border and dull red colour. These differentiating features are due to the different depths of involvement in these two diseases. Erysipelas involves the epidermis and upper dermis, while cellulitis involves the lower dermis and fat layer.

3. The possible complications of lymphoedema include swelling (malodour, lymphorrhoea, pseudoscleroderma, non-healing wound, etc.), infection (erysipelas, cellulitis and tinea pedis) and malignancy (lymphoangiosarcoma).

   Those in erysipelas include deeper invasion of infection causing cellulitis, necrotizing fasciitis, septic arthritis, glomerulonephritis or septicaemia. While repeated infections might damage lymphatics and result in lymphoedema.

4. In practice, lymphoedema is very difficult to be treated. Comprehensive decongestive physiotherapy, combined with compression garments might be helpful in leg lymphoedema. However, it might not be feasible in this patient with face and neck involvement. Hygiene and skin care are important to minimize the chance of infections. In erysipelas, prompt start of oral or intravenous antibiotics is important, in which, penicillin is still the first choice, followed by cephalosporin, especially the first generation. Although symptoms may resolve in a few days, the skin redness may take weeks to return to normal. In this patient, as recurrent attacks will further worsen his pre-existing lymphoedema, prophylactic antibiotics are indicated.

Dr CHONG Lai-yin
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Specialist in Dermatology & Venereology

Reference: 1. molnupiravir US EUA Product Insert.

MOLNUPIRAVIR Selected Safety Information

Authorized Use

1. Molnupiravir is authorized for use under an Emergency Use Authorization (EUA) for the treatment of mild-to-moderate coronavirus disease 2019 (COVID-19) in adults:
   - with positive results of direct SARS-CoV-2 viral testing, and
   - who are at high risk for progression to severe COVID-19, including hospitalization or death, and
   - for whom alternative COVID-19 treatment options approved or authorized by FDA are not accessible or clinically appropriate
2. Molnupiravir is not approved for any use, including the treatment of COVID-19, but is authorized for emergency use by the FDA under an Emergency Use Authorization (EUA).
3. The emergency use of molnupiravir is only authorized for the duration of the declaration that circumstances exist justifying the authorization of the emergency use of drugs and biological products during the COVID-19 pandemic under Section 564(b)(1) of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 360bbb-3(b)(1) unless the declaration is terminated or authorization revoked sooner.

Limitations of Authorized Use

4. Molnupiravir is not authorized:
   - for use in patients who are less than 18 years of age
   - for initiation of treatment in patients hospitalized due to COVID-19. Benefit of treatment with molnupiravir has not been observed in subjects when treatment was initiated after hospitalization due to COVID-19
   - for use for longer than 5 consecutive days
   - or pre-exposure or post-exposure prophylaxis for prevention of COVID-19
5. Molnupiravir may only be prescribed for an individual patient by physicians, advanced practice registered nurses, and physician assistants that are licensed or authorized under state law to prescribe drugs in the therapeutic class to which molnupiravir belongs (i.e., anti-infectives).

Contraindications

6. No contraindications have been identified based on the limited available data on the emergency use of molnupiravir authorized under this EUA.

Warnings and Precautions

7. There are limited clinical data available for molnupiravir. Serious and unexpected adverse events may occur that have not been previously reported with molnupiravir use.
8. Molnupiravir is not recommended for use during pregnancy. Based on findings from animal reproduction studies, molnupiravir may cause fetal harm when administered to pregnant individuals. There are no available human data on the use of molnupiravir in pregnant individuals to evaluate the risk of major birth defects, miscarriage or adverse maternal or fetal outcomes.
9. Molnupiravir is authorized to be prescribed to a pregnant individual only after the healthcare provider has determined that the benefits would outweigh the risks for that individual patient. If the decision is made to use molnupiravir during pregnancy, the prescribing healthcare provider must document that the known and potential benefits and the potential risks of using molnupiravir during pregnancy were communicated to the pregnant individual.
10. Advise individuals of childbearing potential of the potential risk to a fetus and to use an effective method of contraception correctly and consistently during treatment with molnupiravir and for 4 days after the final dose.
11. Prior to initiating treatment with molnupiravir, assess whether an individual of childbearing potential is pregnant or not, if clinically indicated.
12. Hypersensitivity reactions, including anaphylaxis, have been reported with molnupiravir. If signs and symptoms of a clinically significant hypersensitivity reaction or anaphylaxis occur, immediately discontinue molnupiravir and initiate appropriate medications and/or supportive care.
13. Molnupiravir is not authorized for use in patients less than 18 years of age because it may affect bone and cartilage growth. The safety and efficacy of molnupiravir have not been established in pediatric patients.

Adverse Reactions

14. The most common adverse reactions occurring in ≥1% of subjects in the molnupiravir treatment group in the Phase 3 double-blind MOVe-OUT study were diarrhea (2% versus placebo at 2%), nausea (1% versus placebo at 1%), and dizziness (1% versus placebo at 1%) all of which were Grade 1 (mild) or Grade 2 (moderate). Serious adverse events occurred in 7% of subjects receiving molnupiravir and 10% receiving placebo; most serious adverse events were COVID-19 related. Adverse events leading to death occurred in 2 (<1%) of the subjects receiving molnupiravir and 12 (2%) of subjects receiving placebo.

Drug Interactions

15. No drug interactions have been identified based on the limited available data on the emergency use of molnupiravir. No clinical drug-drug interaction trials of molnupiravir with concomitant medications, including other treatments for mild to moderate COVID-19, have been conducted.

Breastfeeding

16. There are no data on the presence of molnupiravir or its metabolites in human milk. It is unknown whether molnupiravir has an effect on the breastfed infant or effects on milk production. Based on the potential for adverse reactions in the infant from molnupiravir, breastfeeding is not recommended during treatment with molnupiravir and for 4 days after the final dose. A lactating individual may consider interrupting breastfeeding and may consider pumping and discarding breast milk during treatment and for 4 days after the last dose of molnupiravir.

Males of Reproductive Potential

17. Nonclinical studies to fully assess the potential for molnupiravir to affect offspring of treated males have not been completed. Advise sexually active individuals with partners of childbearing potential to use a reliable method of contraception correctly and consistently during treatment and for at least 3 months after the last dose of molnupiravir. The risk beyond three months after the last dose of molnupiravir is unknown.

Before prescribing, please consult the full prescribing information.

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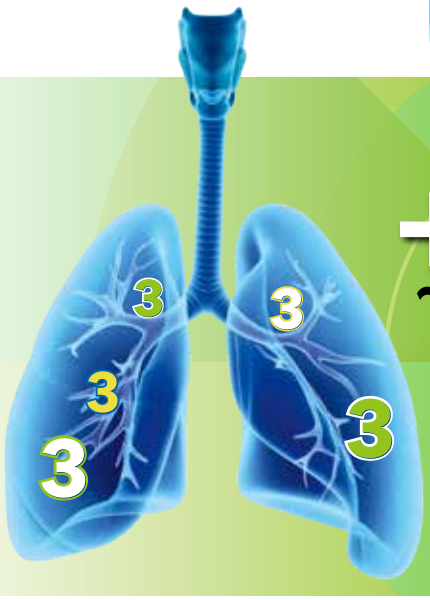
Vaxneuvance®
Pneumococcal 15-valent
Conjugate Vaccine

TARGET OUR BURDEN

Paediatric indication
Approved in HK



±60%

According to a Phase 3 trial, Vaxneuvance® (PCV15) is

~60% higher immunogenicity[a]

to PCV13 for shared Serotype 3[1]

(GMT Ratio 1.60, 95% CI 1.38, 1.85)

NEW Pneumococcal Conjugate Vaccine since 2011[2]

SEROTYPE 3 is the **NO.1 Burden** of IPD[b] in Hong Kong[3]

Vaxneuvance® (PCV15) was **SUPERIOR**[a] to PCV13 for shared Serotype 3[1] (≥50 years old)

ALL

Vaxneuvance® (PCV15) was noninferior[a] to PCV13 for all 13 shared serotype[1]

Vaxneuvance® (PCV15) was **SUPERIOR**[a] to PCV13 for **unique serotypes 22F and 33F**[1]

in adults ≥ 50 years old

[a]in terms of OPA GMTs (according to a Phase 3 trial) [b]IPD: invasive pneumococcal disease

Safety Result: The majority of participants experienced at least 1 adverse event (67.9% after V114 and 58.2% after PCV13). The most frequently reported AEs (>5% of participants in either group) were the solicited events of injection-site pain, injection-site erythema, injection-site swelling, arthralgia, fatigue, headache, and myalgia.[1]

CI: confidence interval; GMT: geometric mean titers; IPD: invasive pneumococcal disease; OPA: opsonophagocytic activity; PCV13: 13-valent pneumococcal conjugate vaccine; PCV15: 15-valent pneumococcal conjugate vaccine

Study design: This was a phase 3, randomized, double-blind, active comparator- controlled study to evaluate the safety, tolerability, and immunogenicity of VAXNEUVANCE compared to PCV13 in healthy pneumococcal-vaccine naive adults 50 years of age or older (Protocol V114-019). The study was conducted from June 2019 through March 2020 at 30 sites. The study enrolled 1,202 participants randomized in a 1:1 ratio to receive a single dose of Vaxneuvance (n=602) or PCV13 (n=600). Randomization was stratified by participant age at enrollment. The primary immunogenicity objectives were to compare Vaxneuvance to PCV13 for noninferiority of immune responses at 30 days postvaccination for shared serotypes (noninferiority met when lower bound of the 2 sided 95% CI of the OPA GMT ratio >0.5) and superiority of immune response at 30 days postvaccination for serotypes unique to Vaxneuvance (superiority met when lower bound of the 2-sided 95% CI of the OPA GMT ratio >2, and the lower bound of the 2-sided 95% CI of the difference between the proportions of participants with a ≥ 4-fold rise >0.1). The secondary immunogenicity objective was to assess superiority of immune response for serotype 3 at 30 days postvaccination (superiority met when lower bound of the 2-sided 95% CI of the OPA GMT ratio >1.2, and the lower bound of the 2-sided 95% CI of the difference between the proportions of participants with a ≥4-fold rise >0)[1].

References: 1. Platt HL *et al; Vaccine* 2022; 40(1):162-172. doi: 10.1016/j.vaccine.2021.08.049 2. Centre for Health Protection. Scientific Committee on Vaccine Preventable Diseases. Updated Recommendations on the Use of 13-valent Pneumococcal Conjugate Vaccine in Childhood Immunisation Programme; 2019. Adopted from: https://www.chp.gov.hk/files/pdf/updated_recommendation_on_the_use_of_ pcv3_in_hkcip_march2019_accessibility.pdf. Accessed on Nov 17, 2022. 3. Centre for Health Protection. Communicable Diseases Watch. *IPD* (2015-2021).

Vaxneuvance Selected Safety Information

Indications: • Vaxneuvance is indicated for active immunisation for the prevention of invasive disease, pneumonia and acute otitis media caused by *Streptococcus pneumoniae* in infants, children and adolescents from 6 weeks to less than 18 years of age • Vaxneuvance is indicated for active immunisation for the prevention of invasive disease and pneumonia caused by *Streptococcus pneumoniae* in individuals 18 years of age and older. • The use of Vaxneuvance should be in accordance with official recommendations.

Dosing: Vaccination with Vaxneuvance is recommended for selected individuals as follows: Individuals 18 years of age and older • 1 dose (0.5 mL). • The need for revaccination with a subsequent dose of Vaxneuvance has not been established. Paediatric population • The safety and efficacy of Vaxneuvance in children and adolescents less than 18 years of age please consult the full prescribing information. Special populations • One dose of Vaxneuvance may be given to individuals who have one or more underlying conditions predisposing them to an increased risk of pneumococcal disease (e.g., adults living with human immunodeficiency virus (HIV) or immunocompetent adults 18 to 49 years of age with risk factors for pneumococcal disease).

Contraindications: Hypersensitivity to the active substances, to any of the excipients, or to any diphtheria toxoid-containing vaccine.

Precautions: • In order to improve the traceability of biological medicinal products, the name and the batch number of the administered product should be clearly recorded. • Vaxneuvance must not be administered intravascularly. • As with all injectable vaccines, appropriate medical treatment and supervision should always be readily available in case of a rare anaphylactic event following the administration of the vaccine. • Vaccination should be postponed in individuals suffering from acute severe febrile illness or acute infection. The presence of a minor infection and/or low-grade fever should not delay vaccination. • As with other intramuscular injections, the vaccine should be given with caution to individuals receiving anticoagulant therapy, or to those with thrombocytopenia or any coagulation disorder such as haemophilia. Bleeding or bruising may occur following an intramuscular administration in these individuals. • The potential risk of apnoea and the need for respiratory monitoring for 48-72 hours should be considered when administering the primary immunisation series to very premature infants (born ≤ 28 weeks of gestation) and particularly for those with a previous history of respiratory immaturity. As the benefit of vaccination is high in this group of infants, vaccination generally should not be withheld or delayed. • Immunocompromised individuals, whether due to the use of immuno-suppressive therapy, a genetic defect, HIV infection, or other causes, may have reduced antibody response to active immunisation. • Safety and immunogenicity data for Vaxneuvance are available for individuals living with HIV infection. Safety and immunogenicity data for Vaxneuvance are not available for individuals in other specific immunocompromised groups (e.g., haematopoietic stem cell transplant) and vaccination should be considered on an individual basis. • As with any vaccine, vaccination with Vaxneuvance may not protect all vaccine recipients. Vaxneuvance will only protect against *Streptococcus pneumoniae* serotypes included in the vaccine. • This medicinal product contains less than 1 mmol sodium (23 milligrams) per dose, i.e. essentially 'sodium-free'.

Adverse events: The most frequently reported adverse reactions following vaccination with Vaxneuvance were solicited. The most frequent adverse reactions were pyrexia, injection-site pain, fatigue, myalgia, headache, injection-site swelling, injection-site erythema and arthralgia. The majority of solicited adverse reactions were mild (based on intensity or size) and of short duration (≤ 3 days); severe reactions (defined as being extremely distressed or unable to do usual activities or size > 7.6 cm) occurred in ≤ 4.5% of children and adolescents; severe reactions (defined as an event that prevents normal daily activity or size > 10 cm) occurred in ≤ 1.5% of adults across the clinical program. • Older adults reported fewer adverse reactions than younger adults. • For detailed side effects, please consult the full prescribing information.

Drug interactions: • Different injectable vaccines should always be administered at different injection sites. • Immunosuppressive therapies may reduce the immune responses to vaccines.

Infants and children aged 6 weeks to less than 2 years • Vaxneuvance can be given concomitantly with any of the following vaccine antigens, either as monovalent or combination vaccines: diphtheria, tetanus, pertussis, poliomyelitis (serotypes 1, 2 and 3), hepatitis A, hepatitis B, Haemophilus influenzae type b, measles, mumps, rubella, varicella and rotavirus vaccine. Children and adolescents 2 to less than 18 years of age: • There are no data on the concomitant administration of Vaxneuvance with other vaccines. Data from a post-marketing clinical study evaluating the impact of prophylactic use of antipyretics (ibuprofen and paracetamol) on the immune response to other pneumococcal vaccines suggest that administration of antipyretics concomitantly or within the same day of vaccination may reduce the immune response after the infant series. Responses to the booster dose administered at 12 months were unaffected. The clinical significance of this observation is unknown. Adults: • Vaxneuvance can be administered concomitantly with seasonal quadrivalent influenza vaccine (split virion, inactivated). There are no data on the concomitant administration of Vaxneuvance with other vaccines.

Pregnancy: • There is limited experience with the use of Vaxneuvance in pregnant women. • Animal studies do not indicate direct or indirect harmful effects with respect to pregnancy, embryo/foetal development, parturition or post-natal development. • Administration of Vaxneuvance in pregnancy should only be considered when the potential benefits outweigh any potential risks for the mother and the foetus.

Breast-feeding: It is unknown whether Vaxneuvance is excreted in human milk.

Fertility: • No human data on the effect of Vaxneuvance on fertility are available. Animal studies in female rats do not indicate harmful effects.

Before prescribing, please consult the full prescribing information.

MSD

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