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Geriatrics

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50% of Gout Patients on ULT and 69% of Gout & CKD Patients Can't Meet sUA Target Level in the U.S.[6]

Abbreviations: CKD, chronic kidney disease; ULT, urate-lowering therapy;sUA, serum uric acid.

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Abbreviated prescribing information of Feburic© film-coated tablets

Version: 003 PI version: Oct 2015 **Composition:** Febuxostat **Indications:** FEBURIC is indicated for the treatment of chronic hyperuricaemia in conditions where urate deposition has already occurred (including a history, or presence of, tophus and/or gouty arthritis). FEBURIC 120 mg is also indicated for the prevention and treatment of hyperuricaemia in adult patients undergoing chemotherapy for haematologic malignancies at intermediate to high risk of Tumor Lysis Syndrome (TLS). FEBURIC is indicated in adults. **Dosage: Gout** 80 mg once daily. **TLS** 120mg once daily; start 2 days before the beginning of cytotoxic therapy and continue for a minimum of 7 days. **Administration:** May be taken by mouth w/o regard to food. **Contraindications:** Hypersensitivity to the active substance or to any of the excipients. **Special warnings and precautions for use:** ***Cardio-vascular disorders*** *Treatment of chronic hyperuricaemia* : Treatment with febuxostat in patients with ischaemic heart disease or congestive heart failure is not recommended. A numerical greater incidence of investigator-reported cardiovascular APTC events (defined endpoints from the Anti-Platelet Trialists' Collaboration (APTC) including cardiovascular death, non-fatal myocardial infarction, non-fatal stroke) was observed in the febuxostat total group compared to the allopurinol group in the APEX and FACT studies (1.3 vs. 0.3 events per 100 Patient Years (PYs)), but not in the CONFIRMS study. The incidence of investigator-reported cardiovascular APTC events in the combined Phase 3 studies (APEX, FACT and CONFIRMS studies) was 0.7 vs. 0.6 events per 100 PYs. In the long-term extension studies the incidences of investigator-reported APTC events were 1.2 and 0.6 events per 100 PYs for febuxostat and allopurinol, respectively. No statistically significant differences were found and no causal relationship with febuxostat was established. Identified risk factors among these patients were a medical history of atherosclerotic disease and/or myocardial infarction, or of congestive heart failure. *Prevention and treatment of hyperuricaemia in patients at risk of TLS*. Patients undergoing chemotherapy for haematologic malignancies at intermediate to high risk of Tumor Lysis Syndrome treated with FEBURIC should be under cardiac monitoring as clinically appropriate. ***Medicinal product allergy/hypersensitivity***. Rare reports of serious allergic/hypersensitivity reactions, including life-threatening Stevens-Johnson Syndrome, Toxic epidermal necrolysis and acute anaphylactic reaction/shock, have been collected in the post-marketing experience. In most cases, these reactions occurred during the first month of therapy with febuxostat. Some, but not all of these patients reported renal impairment and/or previous hypersensitivity to allopurinol. Severe hypersensitivity reactions, including Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) were associated with fever, haematological, renal or hepatic involvement in some cases. Patients should be advised of the signs and symptoms and monitored closely for symptoms of allergic/hypersensitivity reactions. Febuxostat treatment should be immediately stopped if serious allergic/hypersensitivity reactions, including Stevens-Johnson Syndrome, occur since early withdrawal is associated with a better prognosis. If patient has developed allergic/hypersensitivity reactions including Stevens-Johnson Syndrome and acute anaphylactic reaction/shock, febuxostat must not be re-started in this patient at any time. ***Acute gouty attacks (gout flare)*** Febuxostat treatment should not be started until an acute attack of gout has completely subsided. Gout flares may occur during initiation of treatment due to changing serum uric acid levels resulting in mobilization of urate from tissue deposits. At treatment initiation with febuxostat flare prophylaxis for at least 6 months with an NSAID or colchicine is recommended. If a gout flare occurs during febuxostat treatment, it should not be discontinued. The gout flare should be managed concurrently as appropriate for the individual patient. Continuous treatment with febuxostat decreases frequency and intensity of gout flares. ***Xanthine deposition*** in patients in whom the rate of urate formation is greatly increased (e.g. malignant disease and its treatment, Lesch-Nyhan syndrome) the absolute concentration of xanthine in urine could, in rare cases, rise sufficiently to allow deposition in the urinary tract. This has not been observed in the pivotal clinical study with FEBURIC in the Tumor Lysis Syndrome. As there has been no experience with febuxostat, its use in patients with Lesch-Nyhan Syndrome is not recommended. ***Mercaptopurine/azathioprine*** Febuxostat use is not recommended in patients concomitantly treated with mercaptopurine/azathioprine. Where the combination cannot be avoided patients should be closely monitored. A reduction of dosage of mercaptopurine or azathioprine is recommended in order to avoid possible haematological effects. ***Organ transplant recipients*** As there has been no experience in organ transplant recipients, the use of febuxostat in such patients is not recommended.***Theophylline*** Co-administration of febuxostat 80 mg and theophylline 400 mg single dose in healthy subjects showed absence of any pharmacokinetic interaction. Febuxostat 80 mg can be used in patients concomitantly treated with theophylline without risk of increasing theophylline plasma levels. No data is available for febuxostat 120 mg. ***Liver disorders*** During the combined phase 3 clinical studies, mild liver function test abnormalities were observed in patients treated with febuxostat (5.0%). Liver function test is recommended prior to the initiation of therapy with febuxostat and periodically thereafter based on clinical judgment. ***Thyroid disorders*** Increased TSH values (> 5.5 µIU/mL) were observed in patients on long-term treatment with febuxostat (5.5%) in the long term open label extension studies. Caution is required when febuxostat is used in patients with alteration of thyroid function. ***Lactose*** Febuxostat tablets contain lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine. **Undesirable effects:** *Summary of the safety profile* - The most commonly reported adverse reactions in clinical trials (4,072 subjects treated at least with a dose from 10 mg to 300 mg) and post-marketing experience in gout patients are gout flares, liver function abnormalities, diarrhoea, nausea, headache, rash and oedema. These adverse reactions were mostly mild or moderate in severity. Rare serious hypersensitivity reactions to febuxostat, some of which were associated to systemic symptoms, have occurred in the post-marketing experience. *List of adverse reactions* - Common (≥ 1/100 to < 1/10), uncommon (≥ 1/1,000 to < 1/100) and rare (≥ 1/10,000 to < 1/1,000) adverse reactions occurring in patients treated with febuxostat are listed below. The frequencies are based on studies and post-marketing experience in gout patients. Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness. Adverse reactions in combined phase 3, long-term extension studies and post-marketing experience in gout patients. **Blood and lymphatic system disorders:** Rare: Pancytopenia, thrombocytopenia. **Immune system disorders:** Rare: Anaphylactic reaction*, drug hypersensitivity*. **Endocrine disorders:** Uncommon: Blood thyroid stimulating hormone increased. **Eye disorders:** Rare: Blurred vision.**Metabolism and nutrition disorders:** Common***: Gout flares. Uncommon: Diabetes mellitus, hyperlipidemia, decrease appetite, weight increase. Rare: Weight decrease, increase appetite, anorexia. **Psychiatric disorders:** Uncommon: Libido decreased, insomnia. Rare: Nervousness. **Nervous system disorders:** Common: Headache. Uncommon: Dizziness, paraesthesia, hemiparesis, somnolence, altered taste, hypoaesthesia, hyposmia. **Ear and labyrinth disorders:** Rare: Tinnitus. **Cardiac disorders:** Uncommon: Atrial fibrillation, palpitations, ECG abnormal, left bundle branch block (see section Tumor Lysis Syndrome), sinus tachycardia (see section Tumor Lysis Syndrome). **Vascular disorders:** Uncommon: Hypertension, flushing, hot flush, haemorrhage (see section Tumor Lysis Syndrome). **Respiratory system disorders:** Uncommon: Dyspnoea, bronchitis, upper respiratory tract infection, cough **Gastrointestinal disorders:** Common: Diarrhoea**, nausea. Uncommon: Abdominal pain, abdominal distension, gastro-oesophageal reflux disease, vomiting, dry mouth, dyspepsia, constipation, frequent stools, flatulence, gastrointestinal discomfort. Rare: Pancreatitis, mouth ulceration. Hepato-biliary disorders: Common: Liver function abnormalities**. Uncommon: Cholelithiasis. Rare: Hepatitis, jaundice*, liver injury*.**Skin and subcutaneous tissue disorders:** Common: Rash (including various types of rash reported with lower frequencies, see below), Uncommon: Dermatitis, urticaria, pruritus, skin discolouration, skin lesion, petechiae, rash macular, rash maculopapular, rash popular. Rare: Toxic epidermal necrolysis*, Stevens-Johnson Syndrome*, angioedema*, drug reaction with eosinophilia and systemic symptoms*, generalized rash (serious)*, erythema, exfoliative rash, rash follicular, rash vesicular, rash pustular, rash pruritic*, rash erythematous, rash morbilliform, alopecia, hyperhidrosis. **Musculoskeletal and connective tissue disorders:** Uncommon: Arthralgia, arthritis, myalgia, musculoskeletal pain, muscle weakness, muscle spasm, muscle tightness, bursitis. Rare: Rhabdomyolysis*, joint stiffness, musculoskeletal stiffness. **Renal and urinary disorders:** Uncommon: Renal failure, nephrolithiasis, haematuria, pollakiuria, proteinuria. Rare: Tubulointerstitial nephritis*, micturition urgency. **Reproductive system and breast disorder:** Uncommon: Erectile dysfunction. **General disorders and administration site conditions:** Common: Oedema. Uncommon: Fatigue, chest pain, chest discomfort. Rare: Thirst.**Investigations:** Uncommon: Blood amylase increase, platelet count decrease, WBC decrease, lymphocyte count decrease, blood creatine increase, blood creatinine increase, haemoglobin decrease, blood urea increase, blood triglycerides increase, blood cholesterol increase, haematocritic decrease, blood lactate dehydrogenase increased, blood potassium increase. Rare: Blood glucose increase, activated partial thromboplastin time prolonged, red blood cell count decrease, blood alkaline phosphatase increase.* Adverse reactions coming from post-marketing experience ** Treatment-emergent non-infective diarrhoea and abnormal liver function tests in the combined Phase 3 studies are more frequent in patients concomitantly treated with colchicine. *** See full prescribing information for incidences of gout flares in the individual Phase 3 randomized controlled studies. *Description of selected adverse reactions*- Rare serious hypersensitivity reactions to febuxostat, including Stevens-Johnson Syndrome, Toxic epidermal necrolysis and anaphylactic reaction/shock, have occurred in the post-marketing experience. Stevens-Johnson Syndrome and Toxic epidermal necrolysis are characterised by progressive skin rashes associated with blisters or mucosal lesions and eye irritation. Hypersensitivity reactions to febuxostat can be associated to the following symptoms: skin reactions characterised by infiltrated maculopapular eruption, generalised or exfoliative rashes, but also skin lesions, facial oedema, fever, haematologic abnormalities such as thrombocytopenia and eosinophilia, and single or multiple organ involvement (liver and kidney including tubulointerstitial nephritis). Gout flares were commonly observed soon after the start of treatment and during the first months. Thereafter, the frequency of gout flare decreases in a time-dependent manner. Gout flare prophylaxis is recommended. Tumor Lysis Syndrome- *Summary of the safety profile*- In the randomized, double-blind, Phase 3 pivotal FLORENCE (FLO-01) study comparing febuxostat with allopurinol (346 patients undergoing chemotherapy for haematologic malignancies and at intermediate-to-high risk of TLS), only 22 (6.4%) patients overall experienced adverse reactions, namely 11 (6.4%) patients in each treatment group. The majority of adverse reactions were either mild or moderate. Overall, the FLORENCE trial did not highlight any particular safety concern in addition to the previous experience with FEBURIC in gout, with the exception of the following three adverse reactions. Cardiac disorders: Uncommon: Left bundle branch block, sinus tachycardia. Vascular disorders: Uncommon: haemorrhage **Full prescribing information is available upon request.**

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The Cover Shot

Yellow plum blossoms herald the arrival of Spring around the end of January or beginning of February. This picture was taken near the end of January in Wuxi 無錫. Freak weather this year had given the rare opportunity in having snow in無錫which had not snowed for the past 10 years!!

Yellow plum blossoms in snow is indeed a rare paradise.

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The Conundrum of Ageing Well

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Immediate Past President,
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Editor

Dr Raymond SK LO

Since the beginning of humanity, mankind has been contesting with the inevitable fate of ageing and dying. Doctors and fellow professionals remain devoted to searching for a cure for all illnesses. Success is certainly seen in extending life expectancy for many, though quality and well-being are not yet equally achieved for all in later life. Can we better manage the multiple complexities of ageing, and keep the diseases and morbidity of old age further at bay?

When Dame Marjory Warren, the Mother of Geriatrics, pioneered the specialty at West Middlesex Hospital in London during the 1940s, she was treating the sick and infirm who were languishing in old Victorian workhouses. As for Dr Ana Aslan who founded the Geriatric Institute of Bucharest in Romania in 1952, often regarded as the first of its kind, she hoped to find the fountain of youth with an anti-ageing pill. The prevention of ageing and care for older people had indeed been much explored, way back from the era of ancient medicine. In the Canon of Medicine written in 1025, the Persian philosopher Avicenna was concerned that elders should get plenty of sleep, skin anointed with oil, and take on exercises such as walking and horse riding. In Ayurveda, the ancient Indian system of medicine, Rasayana is the branch that deals with rejuvenation and reversal of ageing. In our Mainland China, the notion of respecting the old and nourishing health for longevity had of course been well embraced for over thousands of years.

In this July issue, due focus is given to preventive geriatrics, aiming to promote health by preventing the diseases in old age. Dr Ignatz Nascher from Mount Sinai Hospital Outpatient Department in New York first coined the term Geriatrics in 1909. The word Geriatrics came from the Greek word Geron meaning old man, and Iatros meaning healer. While we endeavour to heal the diseases in old age, the best is to prevent the diseases from ever happening. Ageing is a continuum, and many preventive or health-enhancing measures should be taken much earlier in life. Key strategies are covered in this issue, on defying several giants in geriatric diseases such as falls and fractures, sarcopenia, cognitive decline and depression. The onus is on us all, from Primary Care physicians to Geriatrics specialists, to engage our patients in primary, secondary, and tertiary prevention. Not all older people will benefit from the same prevention approach, and the goal of preventive medicine in old age is also best individualised. Maintaining intrinsic capacity in old age is vital, in preserving function and independence. When faced with a progressive incurable illness, prevention of suffering through advance planning and palliative care is of paramount importance, to enhance both quantity and quality of life with dignity.

Old age has its honour and its toll. It was said by the ancient Greek hero Ulysses that warm baths, good food, soft sleep and generous wine were the rights of age and should not be denied. What is desired from our older citizens in this modern age? In the Lifestyle article of this issue, we interviewed the Chairman of the Elderly Commission and discussed the various concerns for ageing well in our society. For the greying millennium and beyond, we should lose no further time in pursuing the best health and social systems for our future generations to age and thrive in.

Finally, may I thank all our authors again for their invaluable contribution. Professor Woo set the scene with emphasis on maintenance of function and reversal of frailty. Professor Kwok and Dr Kong addressed on the screening and prevention of fractures and sarcopenia. Dr Kwan and Professor Lam updated with the approaches in preventing cognitive decline, and recognition with management of anxiety and depression. Special acknowledgements are due to Dr Lam Ching Choi for his precious time and advice, and also to Professor Richard Yu for his kind support with the exquisite cover photo.

We wish all our readers a wonderful summer, and hope you will find this issue educational and insightful.

End-of-Life Care Workshops
Department of Medicine & Therapeutics
Faculty of Medicine
The Chinese University of Hong Kong

Date:
27th September 2018 to 25th October 2018, every Thursday evening (7:00 p.m. – 9:00 p.m.)

Venue:
Seminar Room 1, 2/F Lui Che Woo Clinical Sciences Building, Prince of Wales Hospital, Shatin, N.T.

Target participants:
Doctors, nurses, allied health professionals, social workers and all health care professional interested in end-of-life care

Maximum number of Participants: 80
Course Fees: $1,500* (by crossed cheque)
Content:

Date	Topic	Speaker
27 Sept 18	01. Introduction: Principles and philosophy of palliative and end of life care	Dr Raymond Lo
	02. What is a good death? Patients' perspectives: dignity, autonomy, their expectations of health care professionals	Dr. Jacqueline YUEN
4 Oct 18	03. Breaking bad news: a Chinese perspective	Dr CY Tse
	04. Ethical issues: decision-making, advance directives, assisted death	Dr CY Tse
11 Oct 18	05. Principles of pain control and use of opioids	Dr KY Chan
	06. Symptom control for advanced cancer and non-cancer patient	Dr Alice Mok
18 Oct 18	07. End-of-life care in non-cancer setting	Dr Raymond Lo
	08. Professionals' reflections in facing death and dying	Dr Vincent Tse
25 Oct 18	09. End-of-life for older patients	Prof T Kwok
	10. Grief and bereavement issues	Ms C Tsang

Registration/enquiries: ****Accreditation in progress**
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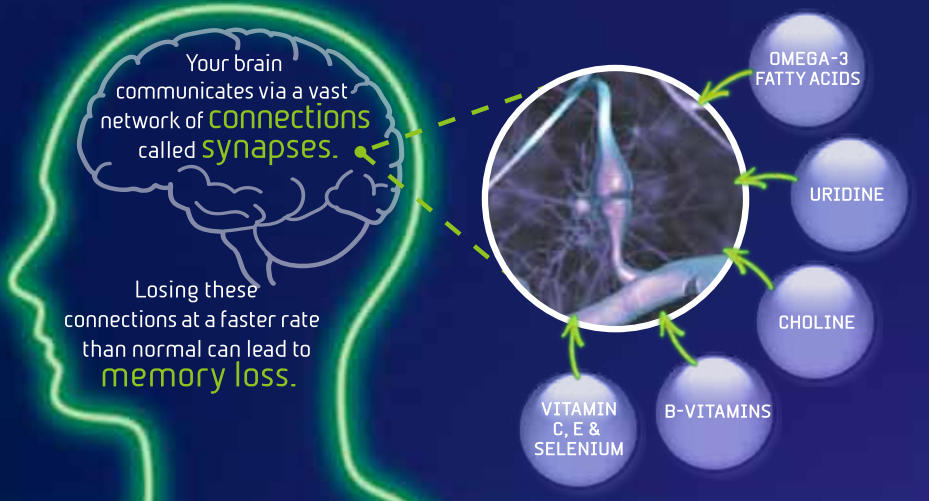

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Maintaining intrinsic capacity in older age

Prof Jean WOO

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Prof Jean WOO

Consequences of demographic change

Population ageing is affecting all countries worldwide, irrespective of the stages of economic development. In Hong Kong it is forecasted that one in three people will be aged 65 years and above by 2040, rising from the current approximately 15% to 30%. Furthermore, men and women in Hong Kong have the longest life expectancies in the world. However, there is widespread consensus that a healthy active life expectancy may be more important than merely life extension. The desirable goal is to maintain cognitive and physical functions, and be independent, for as long as possible. There are no official data to inform us whether the long life expectancy in Hong Kong is accompanied by years lived with independence. However a recent age period cohort analysis of a large cohort of older people attending the Department of Health Elderly Centres suggests that recent cohorts have increasing prevalence of activities of daily living deficits as well as frailty.[1,2] This is in contrast to the slowly declining incidence of common chronic diseases that is compatible with trends in other developed countries. This finding has serious implications for provision of health and social services, in that there is an absolute increase in the numbers of people requiring services due to ageing, but at the same time these people are likely to be more dependent and frail, so that effectively the projection of requirement may be greater than the projections based on the absolute increase in the number of older people. This is contrary to the projection that people are 'healthier' and therefore in older ages they may require less health and social services.

One explanation for this projection is the commonly held perspective that needs of older people are a result of increasing prevalence of chronic diseases, neglecting the health and social consequences of geriatric syndromes, such as cognitive impairment, frailty, sarcopenia, falls, undernutrition etc, which per se give rise to adverse consequences and increase use of health and social services. These conditions are amenable to prevention, screening, and intervention analogous to chronic diseases.[3] There are no systematic community programmes for the prevention and management of frailty, which may be regarded as a phenotype that may include all these syndromes.

Healthy Ageing versus life prolongation

This change in approach is highlighted in the World Health Organization's Healthy Ageing Report, which adopts maintenance of function as the main goal in ageing, and adopts a life course approach to optimising function with ageing.[4] It also published a report advocating community integrated care for older people in the primary care setting that is not focused on screening for the presence or absence of chronic diseases, but on functional indicators.[5] The WHO links this initiative to one of the UN sustainable development goals: universal health coverage. Intrinsic capacity interacting with physical and social environments determines functional capacity, the ultimate measure of healthy ageing. While the intrinsic capacity may be applied throughout the life course, in later years intrinsic capacity may represent the reverse of the frail state,[6] both being better indicators than the chronological age. This is shown by the overlap in indicators for frailty and intrinsic capacity. These cover multiple domains: vitality, locomotor and cognitive function, sensory impairments, psychosocial characteristics, and multi morbidity. Proposed tools include the short physical performance battery, brief nutrition screening tool (MNA-SF), Geriatric Depression scale (GDS-15), Mini-mental state examination (MMSE), and hearing and vision.

Implications for individuals

This approach to healthy ageing requires individuals to understand the ageing process and age-related declines in physiological function, to be managers of their own rate of ageing through health lifestyles and behaviours, rather than a passive approach of focusing on disease avoidance and reliance on professionals. They should participate actively in ensuring that the physical and social environments facilitate their goal of optimising function in addition to building up and maintaining an intrinsic capacity. Initiatives such as the territory-wide Age Friendly City initiative by the Hong Kong Jockey Club Charities Trust with the participation of four universities and District Councils for all 18 districts is an example of how age friendly environments are crucial to healthy ageing [http://www.ioa.cuhk.edu.hk/images/content/others/nawa_em17_10/1017_edm10_act5.pdf]. A key feature is the promotion of the message of empowerment to influence the physical and social environments

Implications for health and social services

There is a need for current health and social services to evolve to support prevention, screening and intervention for frailty, with a shift towards integrated

care in the community following the ICOPE guidelines, promotion of group frailty prevention programmes, development of automated screening tools followed by actions that can be self administered. This new approach should be integrated with existing services, along the lines of recent reports.[3,7-9]

Societal implications

A broader perspective regarding healthy ageing that is not just confined to prevention, and screening for chronic diseases, but focused on maintenance of function through non-pharmacological measures, should be widely promoted to complement current focus on individual diseases such as hypertension and diabetes, with little consideration for frailty and other geriatric syndromes. Chronic diseases increase utilisation of health services; geriatric syndromes in the absence of chronic diseases also increase utilisation; a combination of both will have the biggest impact on society. Currently awareness is largely lacking among professionals and members of the public. We would do well to adopt the World Health Organization's approach to healthy ageing and care of older people in the primary care setting, in order to reverse the current trend to increasing prevalence of frailty and functional deficits in recent cohorts of older people, ultimately putting an unmanageable burden on the public hospital system.

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Fracture prevention in older people

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Introduction

With an ageing population, the burden of fractures is increasingly marked throughout the world[1], with Asia carrying the greatest part. Taking hip fractures for example, the age-standardised annual incidence was reported to be higher in Hong Kong, Japan, South Korea, and Taiwan than in the United States and some European countries[2]. By the year 2050, half of all the hip fractures in the world are estimated to occur in Asians, mostly in Chinese[3].

Fractures are a result of both trauma and decreased bone strength. Properties that contribute to bone strength include bone mineral density (BMD), bone geometry (size and shape of bone), degree of mineralisation, microarchitecture, and bone turnover[4]. Other common factors that contribute to fracture risk include age, falls, a prior fragility fracture, a parental history of hip fracture, smoking, use of systemic corticosteroids, excess alcohol intake and rheumatoid arthritis[5,6].

Osteoporotic fractures lead to deterioration in quality of life. Hip fractures, the most serious form of fractures, accounted for an estimated loss of 1.75 million disability-adjusted life-years (DALYs) globally in 1990, representing 0.1% of the total burden of disease[7]. In Hong Kong, the acute hospital care cost of hip fractures in 1996 amounted to 1.0% of the total annual hospital budget[8].

Osteoporotic fractures in older people are preventable. On the public health level, policies to ensure environmental safety in the design of buildings and public places e.g. street lamps, clear markings and non-slip staircases can reduce risk of falls. Public education to promote dairy intake, outdoor sun exposure and weight bearing exercises may improve bone health at the population level.

A major advance in fracture prevention in the past few decades is the ability to measure BMD at the hip and lumbar spine by dual energy X ray absorptiometry (DXA). Osteoporosis as defined by BMD t score (as compared with the adult population norm) has been shown to be predictive of fractures in older people[9,10], and drugs e.g. bisphosphonates have been consistently shown to be effective and cost effective in lowering fracture risk[11,12]. Based on these, the National Osteoporosis Foundation in US recommends that all women aged 65 year or more and men aged 70 years or older should have osteoporosis screened by DXA[13].

This approach has not been very effective in preventing fractures in older people, in that most people with osteoporotic fractures do not have osteoporosis[14,15]. There is therefore a need to predict fractures more reliably. Based on clinical risk factors that can contribute significantly to fracture risk over and above that provided by aBMD, several assessment tools have been derived, and the most evaluated ones are the FRAX tool[16], the Garvan fracture risk calculator[17,18], and QFracture[19,20]. They were developed to estimate absolute fracture risk to enable better fracture prediction involved aBMD or not. The FRAX tool earns more reputation and popularity by its better calibration and appropriate source information. Since 2008, the population-specific FRAX algorithm has been calibrated to local data on the fracture rate and mortality for older Chinese in the mainland and Hong Kong SAR[21,22], respectively. Indeed, FRAX has been incorporated into international clinical guidelines for osteoporosis drug treatment[23,24]. In the US, based on cost effectiveness analysis, a ten-year hip fracture risk of 3% is thought to justify drug treatment[25]. In contrast, similar cost-effectiveness analysis in Taiwan found that the threshold should be 6% in men and 7% in women[26].

However, the predictive ability of the assessment tools needs specific verification, and their clinical performance needs comprehensive evaluation and local modification for practical application in older Chinese people. The corresponding population effect and cost-effectiveness of different applications in practice should also be taken into account. The investigations therefore to be conducted in the Mr. OS and Ms. OS cohort study in Hong Kong.

Methods

The Mr. OS and Ms. OS Hong Kong study is the first large-scale cohort study conducted to examine the determinants of osteoporotic fractures in older Chinese men and women. Two thousand Chinese men and 2,000 Chinese women aged 65 years old or above were recruited from local communities from August 2001 to March 2003 and were prospectively followed up until March 2014. Information on lifestyle factors and physical measurements were collected at baseline. The related lifestyle factors were: general characteristics and medical history, smoking history, alcohol consumption, medication use, physical activities, and mental status. The related physical examinations were: anthropometric and body composition measurement. Total hip, femoral neck, and lumbar spine aBMD and trabecular bone

score (TBS) of lumbar spine were measured by DXA. FRAX scores for 10-year MOFs or hip fracture risk were calculated accordingly. Data on incident fracture and all-cause mortality were collected from electronic medical record and death registry systems in Hong Kong.

Results and Discussions

The subjects were followed up for an average period of 9.9 ± 2.7 and 8.8 ± 1.5 years, respectively. During the follow-up period, 139 (7.0%) men and 236 (11.8%) women had at least one incident MOF, 63 (3.2%) men and 236 (3.5%) women had at least one incident hip fracture. The incidence rate of MOF was 7.6/1,000 and 15.1/1,000 person-years, and the incidence rate of first incident hip fracture was 3.22/1,000 and 3.99/1,000 person-years in men and women, respectively.

Our analysis showed that TBS which is a novel method of computerised analysis of DXA images of lumbar spine to reflect bone architecture was found to have additive value to FRAX score in predicting MOF[27]. Since then, TBS has been incorporated into the calculation of FRAX score, and all new DXA machines have the option of inbuilt TBS analysis software. In addition, we have found that a history of fall can predict MOF independently of FRAX in older men[28]. There is therefore a case to incorporate any fall history in the calculation of FRAX score in older men.

In Hong Kong, there is no public health policy targeted at fracture prevention. The Hospital Authority started funding bisphosphonate prescription for their outpatients in specialist clinics with a fracture history or on long term steroid treatment, and DXA is available to these patients in a few hospitals. Because bisphosphonate is not available at HA general outpatient clinics, only a small fraction of fracture patients receives bisphosphonates. For example, according to a survey of over 5,000 hip fracture patients in HA hospitals, less than five percent of these patients received any form of fracture preventive medication[29].

As to primary prevention of fractures in older people, there is no public funding for DXA, except via the use of health care vouchers. Probably because of this, few older people undergo DXA scan for primary prevention of MOF, even though it is commonly offered in the private health care sector. A potential strategy is to pre-screen older people with the FRAX questionnaire which is available online (http://www.jococ.org/html/zh/leftmenu/askexpertIntro_self.htm) or by calcaneal QUS before taking DXA examination. Based on our Os cohort data, we conducted a detailed analysis to evaluate the cost-effectiveness of osteoporosis screening strategies for hip fracture prevention. All of the screening strategies, including the universal screening with DXA in people aged 70 years or over, and the pre-screening with FRAX or QUS before DXA were more cost-effective than no screening for people aged 65 years old or over. Probabilistic sensitivity analyses showed a dominant role of pre-screening with FRAX followed by subsequent osteoporosis drug treatment in people aged 70 years old or over in Hong Kong. Indeed, a recent randomised trial of pre-screening by FRAX, followed by DXA resulted in 30% reduction in hip fracture incidence[30].

The FRAX questionnaire has moderate specificity (around 65%) for ten-year hip fracture risk, but sensitivity is limited for the use of screening, being 58.7% in men and 68.6% in women. As sarcopenia is a strong predictor of hip fractures in older people[31,32], we have combined the FRAX questionnaire with a simple (5 items) questionnaire for sarcopenia –SARC-F[33]. Our analysis showed that the combined questionnaire which takes less than five minutes to administer can increase the sensitivity for hip fracture incidence, without compromising the overall predictive value (unpublished data). We therefore recommend this questionnaire (http://www.jococ.org/) to identify older people who are at high risk of hip fracture. It is recommended that these individuals should undergo DXA scan for more accurate delineation of fracture risk. The drug treatment decision can then be based on the FRAX score after incorporating the BMD score, as recommended by existing clinical guidelines[13,23].

Lastly, fractures can only occur after a fall. Older people should undergo a standardised assessment of fall risks which include timed up and go tests, as recommended by the primary care reference framework (www.pco.gov.hk/english/resource/files/Module_on_Falls_in_elderly.pdf). The fallers should also be encouraged to undergo DXA scan to look for osteoporosis.

Conclusions and Implications

We therefore recommend that all older people (aged 70 years or older) should be screened by FRAX and SARC-F questionnaires in the first instance. The ones found to be at risk should undergo DXA scan aided by TBS analysis. If the ten-year hip fracture risk exceeds 6.0% in men 7.0% in women[26], osteoporosis drug treatment should be initiated. Older people with a recent fall, especially in men, should be assessed for fall risk and have osteoporosis screening by DXA. If this proactive approach in primary prevention is generally implemented at the primary care level, there is every hope that the incidence of hip fractures among a community dwelling older people can be reduced significantly.

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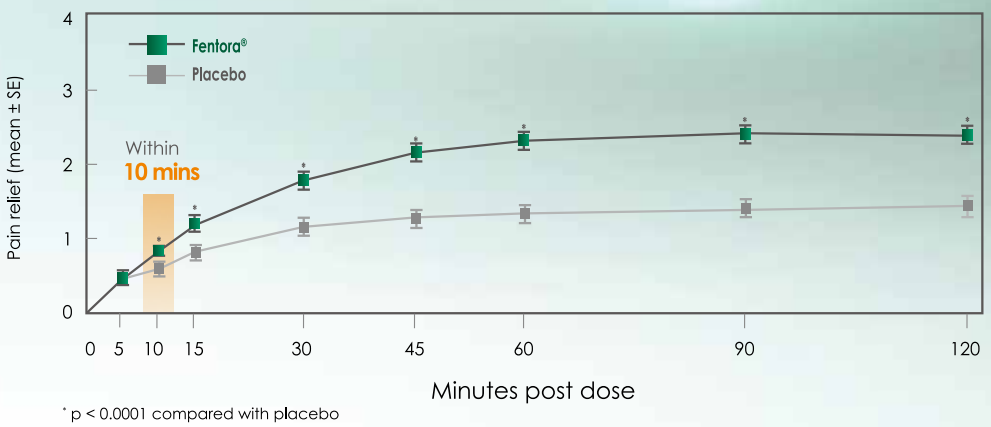

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BTcP = breakthrough cancer pain. GI = gastrointestinal. SE = standard error.

Further information is available on request

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Prevention and Treatment of Sarcopenia

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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 2018.

Sarcopenia is clinically defined as a syndrome characterised by progressive and generalised loss of skeletal muscle mass and muscle function (either low muscle strength or physical performance) with a risk of adverse outcomes such as physical disability, poor quality of life and death.[1-3] Sarcopenia can be viewed from a pathophysiologic perspective as an organ failure ("muscle insufficiency") which can develop chronically or acutely associated with hospitalisation.[4]

Treatment of Chronic Sarcopenia

Why?

Intervening sarcopenia, which is linked to physical frailty in elderly persons, has the potential to slow, stop or reverse progressive decline towards disability and dependency, as well as to improve physical function. We can see treatment of sarcopenia as a means to avoid disability, just like treating hypertension as a means of preventing stroke, or treating osteoporosis to prevent fractures. While osteoporosis is related to the outcome of fractures, a hard clinically relevant outcome for sarcopenia has yet to be identified. Potential outcomes of sarcopenia studied in sarcopenia intervention trials include mobility disability (dysmobility), activities of daily living (ADL) disability, fractures, recurrent falls, injurious falls, mortality, or hospitalisation.[5]

What cut-off to intervene?

There is a need to establish evidence-based cut-off points in assessment of sarcopenia to distinguish it from normal ageing of the skeletal muscle. Both the European and Asian Working Groups on Sarcopenia have proposed cut-off points of measurements two Standard Deviations (SDs) below the mean from a reference population of healthy young people for diagnosis of sarcopenia.[1,3] However, these cut-off points are not outcome-based and do not necessarily represent the threshold for interventions. The choice of a cut-off has to balance sensitivity and specificity according to the needs of the evaluation. Sensitivity is preferred for screening to identity those at risk, while specificity is preferred for targeting intervention to those who may benefit from treatment. In establishing a cut-off for interventions, the most important outcome needs to be identified, but as mentioned above, consensus on such a gold standard has not been reached in sarcopenia research.[5]

How?

Currently, there are no approved drug treatments for sarcopenia. Most sarcopenia intervention studies focused on exercise, nutrition, or their combination. But very few trials enrolled people with sarcopenia and their study designs are diverse in terms of participant inclusion, exercise or nutrition interventions, and quality of the study design. The International Conference on Frailty and Sarcopenia Research Task Force met in April 2017 to reflect and evaluate on past trials in sarcopenia and discussed on strategies to accelerate development of new therapies.[5]

The four categories of exercise (resistance exercise, aerobic exercise, flexibility and balance) have potential benefits in improving independence in elderly people.[6] Exercise has been shown to increase muscle strength, physical function, aerobic capacity, muscle protein synthesis, and muscle mitochondrial enzyme activity in both young and elderly people. Systemic inflammation has been increasingly recognised in the genesis of sarcopenia, and exercise has a beneficial role in sarcopenia through its anti-inflammatory effect.[7] For exercise to slow muscle loss, a minimum of twice to thrice per week is recommended. Resistance exercise (exercise against an increasing external load) is the most studied form of exercise intervention. In a Cochrane review of 121 trials with 6,700 participants with an average age of at least 60 years old, resistance exercise has been shown to be beneficial on muscle strength and physical function.[8]

While some studies have shown that protein supplementation augments the beneficial effect of resistance exercise for younger healthy adults, a meta-analysis of 15 studies failed to show a similar effect in older (mean age 77.4 years) healthy, frail, and sarcopenic adults, though there may be an additional benefit of protein supplementation on resistance exercise programmes in frail older adults who do not regularly consume sufficient protein at baseline, particularly those in institutionalised care.[9] However, another systematic overview of community-dwelling elderly patients (aged 65 years or above) with physical frailty and sarcopenia, majority from China and Japan, showed that exercise interventions (that include resistance and balance training) with or without nutritional supplementation improved muscle strength and physical performance.[10]

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Hepatic impairment: The effect of hepatic impairment on dutasteride-tamsulosin pharmacokinetics has not been studied so caution should be used in patients with mild to moderate hepatic impairment. In patients with severe hepatic impairment, the use of DUODART is contraindicated. **Contraindications** Patients with known hypersensitivity to dutasteride, other 5 alphareductase inhibitors, tamsulosin (including tamsulosin- induced angio-edema), soya, peanut or any of the excipients; history of orthostatic hypotension; with severe hepatic impairment; women and adolescents. **Warnings and Precautions** Concomitant administration of tamsulosin hydrochloride with strong inhibitors of CYP3A4, or to a lesser extent, with strong inhibitors of CYP2D6 can increase tamsulosin exposure (see Interactions). Tamsulosin hydrochloride is therefore not recommended in patients taking a strong CYP3A4 inhibitor and should be used with caution in patients taking a strong CYP2D6 inhibitor. Tamsulosin hydrochloride should be used with caution in patients taking a moderate CYP3A4 inhibitor in combination with either strong or moderate CYP2D6 inhibitors, or in patients known to be poor metabolisers of CYP2D6. In two 4-year clinical study, the incidence of cardiac failure (a composite term of reported events, primarily cardiac failure and congestive cardiac failure) was higher among subjects taking the combination of dutasteride and an alpha blocker tamsulosin, than it was among subjects not taking the combination. Digital rectal examination, as well as other evaluations for prostate cancer or other conditions which can cause the same symptoms as BPH, must be performed on patients with BPH prior to initiating therapy with DUODART and periodically thereafter. Serum prostate-specific antigen (PSA) concentration is an important component in the detection of prostate cancer. Duodart causes a decrease in mean serum PSA levels by approximately 50% after six months of treatment. Patients receiving Duodart should have a new PSA baseline established after 6 months of treatment with Duodart. It is recommended to monitor PSA values regularly thereafter. Any confirmed increase from lowest PSA level while on Duodart may signal the presence of prostate cancer (particularly high grade cancer) or noncompliance to therapy with Duodart and should be carefully evaluated, even if those values are still within the normal range for men not taking a 5α-reductase inhibitor (see section 5.1). In the interpretation of a PSA value for a patient taking Duodart, previous PSA values while on dutasteride treatment should be sought for comparison. Total serum PSA levels return to baseline within 6 months of discontinuing treatment. The ratio of free to total PSA remains constant even under the influence of DUODART. If clinicians elect to use percent free PSA as an aid in the detection of prostate cancer in men undergoing DUODART therapy, no adjustment to its value appears necessary. Breast cancer has been reported in men taking dutasteride in clinical trials (see Clinical Studies) and during the post-marketing period. Prescribers should instruct their patients to promptly report any changes in their breast tissue such as lumps or nipple discharge. It is not clear if there is a causal relationship between the occurrence of male breast cancer and long term use of dutasteride. As with other alpha-blockers, a reduction in blood pressure can occur during treatment with tamsulosin, as a result of which, rarely, syncope can occur. Patients beginning treatment with DUODART should be cautioned to sit or lie down at the first signs of orthostatic hypotension (dizziness, weakness) until the symptoms have resolved. Caution is advised when alpha adrenergic blocking agents including tamsulosin are co-administered with PDE5 inhibitors. Alpha adrenergic blockers and PDE5 inhibitors are both vasodilators that can lower blood pressure. Concomitant use of these two drug classes can potentially cause symptomatic hypotension. Intraoperative Floppy Iris Syndrome (IFIS, a variant of small pupil syndrome) has been observed during cataract surgery in some patients on or previously treated with tamsulosin. IFIS may lead to increased procedural complications during the operation. The initiation of therapy with Duodart in patients for whom cataract surgery is scheduled is therefore not recommended. During pre-operative assessment, cataract surgeons and ophthalmic teams should consider whether patients scheduled for cataract surgery are being or have been treated with Duodart in order to ensure that appropriate measures will be in place to manage the IFIS during surgery. Discontinuing tamsulosin 1 – 2 weeks prior to cataract surgery is anecdotally considered helpful, but the benefit and duration of stopping therapy prior to cataract surgery has not yet been established. Dutasteride is absorbed through the skin, therefore women and children must avoid contact with leaking capsules. If contact is made with leaking capsules the contact area should be washed immediately with soap and water. DUODART has not been studied in patients with liver disease Caution should be used in the administration of dutasteride to patients with liver disease. This medicinal product contains the colouring agent Sunset Yellow (E110), which may cause allergic reactions. In men aged 50 to 75 years with a prior negative biopsy for prostate cancer and a baseline PSA between 2.5 ng/mL and 10.0 ng/mL taking dutasteride in the 4-year Reduction by Dutasteride of Prostate Cancer Events (REDUCE) trial, there was an increased incidence of Gleason score 8-10 prostate cancer compared with men taking placebo (dutasteride 1.0% versus placebo 0.5%). In a 7-year placebo-controlled clinical trial with another 5 alpha-reductase inhibitor (finasteride 5 mg, PROSCAR), similar results for Gleason score 8-10 prostate cancer were observed (finasteride 1.8% versus placebo 1.1%). 5 alpha-reductase inhibitors may increase the risk of development of high-grade prostate cancer. Whether the effect of 5 alpha-reductase inhibitors to reduce prostate volume, or study related factors, impacted the results of these studies has not been established. Priapism (persistent painful penile erection unrelated to sexual activity) has been associated (probably less than 1 in 50,000) with the use of alpha-adrenergic antagonists, including tamsulosin, which is a component of Duodart. Because this condition can lead to permanent impotence if not properly treated, patients should be advised about the seriousness of the condition. Interactions Concomitant administration of tamsulosin hydrochloride with drugs which can reduce blood pressure, including anaesthetic agents, PDE5 inhibitors and other alpha-1 adrenergic blockers could lead to enhanced hypotensive effects. Dutasteride-tamsulosin should not be used in combination with other alpha-1 adrenergic blockers. Concomitant administration of tamsulosin hydrochloride and ketoconazole (a strong CYP3A4 inhibitor) resulted in an increase of the Cmax and AUC of tamsulosin hydrochloride by a factor of 2.2 and 2.8 respectively. Concomitant administration of tamsulosin hydrochloride and paroxetine (a strong CYP2D6 inhibitor) resulted in an increase of the Cmax and AUC of tamsulosin hydrochloride by a factor of 1.3 and 1.6 respectively. A similar increase in exposure is expected in CYP2D6 poor metabolisers as compared to extensive metabolisers when co-administered with a strong CYP3A4 inhibitor. The effects of co-administration of both CYP3A4 and CYP2D6 inhibitors with tamsulosin hydrochloride have not been evaluated clinically, however there is a potential for significant increase in tamsulosin exposure. Concomitant administration of tamsulosin hydrochloride (0.4 mg) and cimetidine (400 mg every six hours for six days) resulted in a decrease in the clearance (26%) and an increase in the AUC (44%) of tamsulosin hydrochloride. Caution should be used when dutasteride-tamsulosin is used in combination with cimetidine. A definitive drug-drug interaction study between tamsulosin hydrochloride and warfarin has not been conducted. Results from limited in vitro and in vivo studies are inconclusive. Caution should be exercised with concomitant administration of warfarin and tamsulosin hydrochloride. Pregnancy and Lactation The effects of dutasteride 0.5 mg/day on semen characteristics were evaluated in normal volunteers aged 18 to 52 (n=27 dutasteride, n=23 placebo) throughout 52 weeks of treatment and 24 weeks of post treatment follow-up. At 52 weeks, the mean percent reduction from baseline in total sperm count, semen volume, and sperm motility were 23%, 26%, and 18%, respectively, in the dutasteride group when adjusted for changes from baseline in the placebo group. Sperm concentration and sperm morphology were unaffected. After 24 weeks of follow-up, the mean percent change in total sperm count in the dutasteride group remained 23% lower than baseline. While mean values for all semen parameters at all time points remained within the normal ranges and did not meet predefined criteria for a clinically significant change (30%), two subjects in the dutasteride group had decreases in sperm count of greater than 90% from baseline at 52 weeks, with partial recovery at the 24-week follow-up. The clinical significance of dutasteride's effect on semen characteristics for an individual patient's fertility is not known. DUODART is contraindicated for use by women. As with other 5 alpha reductase inhibitors, dutasteride inhibits the conversion of testosterone to dihydrotestosterone and may, if administered to a woman carrying a male foetus, inhibit the development of the external genitalia of the foetus. Small amounts of dutasteride have been recovered from the semen in subjects receiving dutasteride. It is not known whether dutasteride or tamsulosin are excreted in human milk. Adverse Reactions Clinical Trial Data (DUTASTERIDE AND TAMSULOSIN CO-ADMINISTRATION): Impotence, altered (decreased) libido, ejaculation disorders, breast disorders (includes breast tenderness and breast enlargement), dizziness and cardiac failure. Clinical Trial Data (dutasteride monotherapy): Allergic reactions, including rash, pruritus, urticaria, localised oedema and angioedema. Alopecia (primaril body hair loss), hypertrichosis, depressed mood, testicular pain and testicular swelling. Clinical Trial Data (Tamsulosin Monotherapy): Clinical Trial Data and Post marketing Data: Dizziness, abnormal ejaculation, palpitations, constipation, diarrhoea, vomiting, asthenia, rhinitis, rash, pruritis, urticaria, postural hypotension, syncope, angioedema, priapism, Stevens-Johnson syndrome. During postmarketing surveillance, reports of Intraoperative Floppy Iris Syndrome (IFIS), a variant of small pupil syndrome, during cataract surgery have been associated with alpha-1 blocker therapy, including tamsulosin. Post-marketing experience: In addition atrial fibrillation, arrhythmia, tachycardia and dyspnoea have been reported in association with tamsulosin use. The frequency of events and the role of tamsulosin in their causation cannot be reliably determined.

Abridged PI (UKSMPC201204146GDS11IPI09(hk)) Please read the full prescribing information prior to administration, available from GlaxoSmithKline Limited. Full prescribing information is available upon request.

References: 1. Roehrborn CG et al. Eur Urol 2010; 57: 123-131. **2.** DUODART- Hong Kong Prescribing Information 2014. Version number: UKSMPC20131206/GDS11v2(hk)

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HKRX/DUTT/0013/17a (09/2019)
Date of preparation: 17/10/2017

The "Sarcopenia and Physical fRailty IN older people: multi-componenT Treatment strategies" (SPRINTT) is an ongoing randomised controlled trial designed to evaluate the efficacy of multicomponent intervention (consisting of structure physical activity, personalised nutritional counselling/dietary intervention, and an informational/communication technology) for preventing mobility disability and other outcomes such as injurious falls in 1,500 frail sarcopenic elderly persons in Europe. This study is expected to promote significant advancements in the management of frail sarcopenic elderly persons at high risk of disability.[11]

Prevention of Chronic Sarcopenia

A key issue in geriatric medicine is whether to focus on treatment or prevention. For sarcopenia, public health interventions should adopt a life-course approach in order to have a positive impact on the earlier phases of the skeletal muscle decline starting after the age of 40 years. It has been suggested that everyone who gets a prescription for a long term condition in a clinic should also get an activity prescription at the end of every consultation.[12]

The British Geriatrics Society recommends that exercise, in particular strength and balance training, improves both mobility and functional ability, though the optimal exercise regimen to minimise frailty and sarcopenia remains uncertain.[13] Nutritional interventions also need to be considered, although evidence remains limited. Nutrition recommendations currently include optimising protein intake and correcting vitamin D insufficiency.[13-15] Testosterone improves muscle strength, but is also associated with adverse effects, particularly on the cardiovascular system.[13,16]

The European Society for Clinical Nutrition and Metabolism (ESPEN) recommends that the diet should provide at least 1.0–1.2 g protein/kg body weight/day for healthy elderly persons and up to 1.2–1.5 g protein/kg body weight/day for malnourished/at risk of malnutrition elderly people, with even higher intake for individuals with severe illness or injury. However, this recommendation is based on data from longitudinal epidemiological studies rather than intervention trials. Daily physical activity or exercise (resistive or aerobic) should be undertaken by all elderly people, for as long as possible.[17]

The European Society for Clinical and Economic Aspects of Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (ESCEO) Working Group highlights the importance of 'healthier' dietary patterns of adequate quality in old age for muscle health: to ensure sufficient intakes of protein, vitamin D, antioxidant nutrients and long-chain polyunsaturated fatty acids. However, much of the evidence is observational and from high-income countries.[18]

The most practical means of increasing skeletal muscle protein is to include proteins of high biological value during each meal, e.g. lean cuts of meat, fish, eggs, low fat dairy products, beans, pulses, lentils. It has been suggested that leucine, an essential amino acid, is critical to the maintenance of healthy muscle. However, no consistent results have been shown from studies of leucine supplementation. Dietary omega-3 fatty acid supplementation (e.g. fish oil or flaxseed oil) increases the rate of muscle protein synthesis in elderly persons.[19] A Korean community study of elderly people (aged ≥65 years) showed that dietary intake of vegetables and fruits, which are rich in antioxidant, was associated with a significantly reduced risk of sarcopenia.[20] Low vitamin D levels have been associated with low muscle strength.[21] Vitamin D supplementation in individuals with low levels can help improve muscle mass and function.[22-24]

While lifestyle and behavioural interventions (e.g. nutrition, physical activity) may be promoted on a large scale as a public health preventive measure, the development of drugs to prevent sarcopenia can be targeted at the higher risk sub-population because of a sedentary lifestyle or inadequate energy intake and those with specific sarcopenia conditions characterised by accelerated ageing.[25] The ENRGISE (ENabling Reduction of 10wGrade Inflammation in Seniors) is a prevention trial in Florida that targets age-related inflammation as a risk factor for mobility loss, frailty, and sarcopenia.[26] The anti-inflammatory intervention used in this study combines an angiotensin receptor blocker (losartan) with omega-3 fatty acids. If proven efficacious, this widely available and low-cost combined intervention could be relatively easy to deliver to elderly people at high risk of mobility disability.

Acute Sarcopenia Secondary to Hospitalisation

The term "acute sarcopenia" refers to acute loss of muscle mass and function associated with hospitalisation, arising from a combination of acute inflammatory burden, muscle disuse and endocrine dysregulation.[4] The risk factors associated with acute sarcopenia are:[27-34]

- Cognitive impairment: acute (delirium) or chronic (dementia)
- Immobility: bedrest, disuse, restraint
- Acute medical illness
- Intensive Care Unit admission
- Medications, e.g. steroids
- Surgical procedures
- Malnutrition
- Chronic disease
- Pre-sarcopenia and chronic sarcopenia
- Psychological stress: acute or chronic
- Depression
- Insomnia

Prevention and Treatment of Acute Sarcopenia

Identifying and intervening the risk factors of acute sarcopenia mentioned above are important in preventing or reversing acute sarcopenia and its long-term sequelae of chronic sarcopenia.

Physical activity interventions

Hospitalised elderly patients often have their mobility restricted by reclining beds, bedside rails, restraints, and the use of bed and chair alarms due to perceived risks of falls.[35,36] Bedrest and restraints, which are associated with sarcopenia and other adverse outcomes,[36-38] should

1–2 SEPTEMBER 2018 **HONG KONG**

SYMPOSIUM ON ASTHMA AND COPD: NOW AND FUTURE

PROGRAMME HIGHLIGHTS

- World-renowned speakers on COPD, childhood and adult asthma
- Hands-on workshop on endobronchial lung volume reduction & bronchial thermoplasty
- Certificate course for allied health professionals with lectures and hands-on workshop on lung function, allergy skin tests, inhaler devices, high-flow oxygen and non-invasive ventilation
- Primary prevention of asthma and COPD
- Getting the best from current treatments
- Emerging pharmacological and non-pharmacological treatments for severe asthma
- Treatable traits for airway diseases: a strategy for the future?

INVITED SPEAKERS

Neil Barnes (UK)
Norbert Berend (Australia)
Peter Calverley (UK)
Mario Castro (USA)
Veronica Chan (Hong Kong)
Ratko Djukanovic (UK)
Felix Herth (Germany)
Peter Howarth (UK)
Sebastian Johnston (UK)
Gregory King (Australia)
Fanny Ko (Hong Kong)
Grace Lam (Hong Kong)
Wai-kei Lam (Hong Kong)
Christoper Lai (Hong Kong)
Jing Li (Mainland China)
Fernando Martinez (USA)
Fernando J Martinez (USA)
Daniel Ng (Hong Kong)
Ian Pavord (UK)
Helen Reddel (Australia)
Hoi-nam Tse (Hong Kong)
Jorgen Vestbo (UK)
Wisia Wedzicha (UK)
Yiu-cheong Yeung (Hong Kong)

REGISTRATION FEE

Category	Respiratory Physicians		Nurses and Allied Health Professionals	
	Members of HKTS/CHEST	Non-members	Members of HKTS/CHEST	Non-members
Symposium on Asthma and COPD (1 - 2 Sep)	HK$500	HK$1,000	HK$300	
Hands-on Workshop and Symposium (1 - 2 Sep)	HK$800	HK$1,600	HK$500	HK$700

Remarks: HKTS/CHEST members have priority registration for the workshop

MEETING SECRETARIAT

MIMS (Hong Kong) Limited
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Tel: (852) 2155 8557 or 2116 4348 Fax: (852) 2559 6910
E-mail: meeting.hk@mims.com

VENUE

Meeting Room S421, Level 4, Phase 1 (Old Wing)
Hong Kong Convention and Exhibition Centre
1 Expo Drive, Wanchai, Hong Kong

REGISTRATION^

Please fill in the registration form and return it with payment to the meeting secretariat before **10 August 2018**. Please make cheque payable to **"Hong Kong Thoracic Society Limited"**.

^ *On-site registration will not be accepted*

Download Registration Form at:
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Organizers: Hong Kong Thoracic Society; CHEST Delegation Hong Kong and Macau

Sponsor: Hong Kong Lung Foundation

Certificate Course for General Practitioners, Midwives, Nurses and Health Care Providers who are interested in Obstetrics

Course No. C317 | CME/CNE/PEM Course

Certificate Course in Obstetrics 2018

Jointly organised by

The Federation of Medical Societies of Hong Kong

The Obstetrical and Gynaecological Society of Hong Kong

Objectives:

This course is designed for the general practitioners, midwives, nurses and health care providers who are interested in Obstetrics. A series of lectures covering various aspects of modern obstetrics and midwifery are provided in the course. Participants will have an update of the subjects so that collaboration with maternity units in providing pregnancy care can be facilitated.

Date	Topics	Speakers
16 Jul	Management of intrauterine fetal demise	Dr. LAI Wing Sze Carman Associate Consultant, Department of Obstetrics & Gynaecology, Queen Mary Hospital
23 Jul	Managing common psychiatric illness during pregnancy	Dr. CHAN Lai Wah Connie Associate Consultant, Yung Fung Shee Psychiatric Centre
30 Jul	Prediction and prevention of pre-eclampsia	Prof. POON Chiu Yee Liona Clinical Associate Professor, Department of Obstetrics & Gynaecology, The Chinese University of Hong Kong
6 Aug	Morbidly adherent placenta - diagnosis and management	Dr. CHAN Lin Wai Daniel Consultant, Department of Obstetrics & Gynaecology, Hospital Authority Kowloon East Cluster
13 Aug	Hepatitis and pregnancy	Dr. LAW Lai Wa Specialist in Obstetrics and Gynaecology Clinical Associate Professor (Honorary) The Chinese University of Hong Kong
20 Aug	A) Use of birth ball B) Common musculoskeletal problem in pregnancy	Ms. Brigitte FUNG Senior physiotherapist, Kwong Wah Hospital

Date : 16, 23, 30 July & 6, 13, 20 August, 2018 (Every Monday)
Time : 7:00 p.m. – 8:30 p.m.
Venue : Lecture Hall, 4/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong
Language Media : Cantonese (Supplemented with English)
Course Fee : HK$750 (6 sessions)
Certificate : Awarded to participants with a minimum attendance of 70%
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CME / CPD Accreditation in application
A total of 9 CNE/PEM points for the whole course and the points will be awarded according to the number of hours attended.
Application form can be downloaded from website: http://www.fmshk.org

be minimised during hospitalisation. There is increasing evidence that early mobilisation and physical activity regimes can help to improve outcomes.[39,40] The optimum duration and intensity of physical activity to treat or prevent acute sarcopenia has yet to be answered by future research. For in-hospital mobility intervention programmes to be sustainable, such programmes may have to be tailored to specific sites.[41]

Nutrition

Studies have shown that elderly persons have higher protein requirements than younger adults because of anabolic resistance, which means that elderly individuals need to consume a greater amount of protein to stimulate muscle protein synthesis.[42] The protein requirements are further increased during acute illness.[43] A randomised study on protein pulse feeding in an inpatient rehabilitation unit has demonstrated clinically relevant effects on the lean mass in malnourished and at-risk hospitalised elderly patients.[44] A meta-analysis of high protein oral nutritional supplements in patients following hospital discharge showed a reduction in complications and re-admissions as well as improvements in weight and grip strength.[45]

Other potential interventions

Neuromuscular electrical stimulation, the application of electrical currents to stimulate muscular contraction, is a potential strategy to prevent targeted muscle atrophy in situations where mobilisation is not possible, such as in the intensive care unit setting.[46] In patients with advanced cancer undergoing standard-of-care therapy, adjunct testosterone (weekly injections of 100 mg testosterone enanthate for seven weeks) improved the lean body mass and was also associated with increased quality of life, and physical activity compared with placebo.[47] It is thought that testosterone achieves this by both stimulating anabolic and suppressing catabolic skeletal muscle pathways.

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MCHK CME Programme Self-assessment Questions

Please read the article entitled "Prevention and Treatment of Sarcopenia" by Dr Tak-kwan KONG 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 2018 Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

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

1. **Patients with sarcopenia are at risk of mobility disability and treating sarcopenia is a means to avoid disability.**
2. **The proposed cut-off points to diagnose sarcopenia for Asians are outcome-based and can be used as the threshold for interventions.**
3. **The minimum recommended frequency of exercise to slow muscle loss is once a week.**
4. **Current evidence-based treatments for sarcopenia are drugs, exercise, and nutrition.**
5. **Prevention of sarcopenia should start at the age of 40 years when skeletal muscle declines in the life-course.**
6. **Though testosterone improves muscle strength, it is associated with adverse effects on the cardiovascular system.**
7. **Vitamin D supplementation in individuals with low vitamin D levels can help improve muscle mass and function.**
8. **Since inflammation is a risk factor for sarcopenia, anti-inflammatory drugs are being studied in sarcopenia prevention trials.**
9. **Intensive Care Unit admission is a risk factor for acute sarcopenia.**
10. **Anabolic resistance means that younger adults need to consume a greater amount of protein than older adults to stimulate muscle protein synthesis.**

ANSWER SHEET FOR JULY 2018

Please return the completed answer sheet to the Federation Secretariat on or before 31 July 2018 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions.

Prevention and Treatment of Sarcopenia

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1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

Name (block letters):_____ HKMA No.: _____ CDSHK No.: _____

HKID No.: __ __ - __ __ __ __ X X (X) HKDU No.: _____ HKAM No.: _____

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Answers to June 2018 Issue

American College of Cardiology, Annual Scientific Congress (ACC 18')
Late-Breaking Clinical Trials Sessions

1. F 2. F 3. F 4. F 5. F 6. T 7. T 8. T 9. T 10. T

OAB: overactive bladder

Abbreviated prescribing information of Betmiga® prolonged-release tablets

Version: 003 PI version: Apr 2016. **Composition:** Mirabegron **Indication:** Symptomatic treatment of urgency, increased micturition frequency and/or urgency incontinence as may occur in adult patients with overactive bladder (OAB) syndrome. **Dosage:** Adult including elderly 50 mg once daily with or without food. **Administration:** Swallow whole with liquids. Do not chew/divide/crush. **Contraindications:** Mirabegron is contraindicated in patients with **-** Hypersensitivity to the active substance or to any of the excipients. **-** Severe uncontrolled hypertension defined as systolic blood pressure ≥ 180 mm Hg and/or diastolic blood pressure ≥ 110 mm Hg. **Special warnings and precautions for use:** Renal impairment: Betmiga has not been studied in patients with end stage renal disease (GFR < 15 mL/min/1.73 m2 or patients requiring haemodialysis) and, therefore, it is not recommended for use in this patient population. Data are limited in patients with severe renal impairment (GFR 15 to 29 mL/min/1.73 m2); based on a pharmacokinetic study a dose reduction to 25 mg is recommended in this population. Betmiga is not recommended for use in patients with severe renal impairment (GFR 15 to 29 mL/min/1.73 m2) concomitantly receiving strong CYP3A inhibitors. Hepatic impairment: Betmiga has not been studied in patients with severe hepatic impairment (Child-Pugh Class C) and, therefore, it is not recommended for use in this patient population. Betmiga is not recommended for use in patients with moderate hepatic impairment (Child-Pugh B) concomitantly receiving strong CYP3A inhibitors. Hypertension: Mirabegron can increase blood pressure. Blood pressure should be measured at baseline and periodically during treatment with Betmiga, especially in hypertensive patients. Data are limited in patients with stage 2 hypertension (systolic blood pressure ≥ 160 mm Hg or diastolic blood pressure ≥ 100 mm Hg). Patients with congenital or acquired QT prolongation: Betmiga, at therapeutic doses, has not demonstrated clinically relevant QT prolongation in clinical studies. However, since patients with a known history of QT prolongation or patients who are taking medicinal products known to prolong the QT interval were not included in these studies, the effects of mirabegron in these patients is unknown. Caution should be exercised when administering mirabegron in these patients. Patients with bladder outlet obstruction and patients taking antimuscarinics medications for OAB: Urinary retention in patients with bladder outlet obstruction (BOO) and in patients taking antimuscarinic medications for the treatment of OAB has been reported in postmarketing experience in patients taking mirabegron. A controlled clinical safety study in patients with BOO did not demonstrate increased urinary retention in patients treated with Betmiga; however, Betmiga should be administered with caution to patients with clinically significant BOO. Betmiga should also be administered with caution to patients taking antimuscarinic medications for the treatment of OAB. **Undesirable effects:** Summary of the safety profile: The safety of Betmiga was evaluated in 8,433 patients with OAB, of which 5,648 received at least one dose of mirabegron in the phase 2/3 clinical program, and 622 patients received Betmiga for at least 1 year (365 days). In the three 12-week phase 3 double blind, placebo controlled studies, 88% of the patients completed treatment with Betmiga, and 4% of the patients discontinued due to adverse events. Most adverse reactions were mild to moderate in severity. The most common adverse reactions reported for patients treated with Betmiga 50 mg during the three 12-week phase 3 double blind, placebo controlled studies are tachycardia and urinary tract infections. The frequency of tachycardia was 1.2% in patients receiving Betmiga 50 mg. Tachycardia led to discontinuation in 0.1% patients receiving Betmiga 50 mg. The frequency of urinary tract infections was 2.9% in patients receiving Betmiga 50 mg. Urinary tract infections led to discontinuation in none of the patients receiving Betmiga 50 mg. Serious adverse reactions included atrial fibrillation (0.2%). Adverse reactions observed during the 1-year (long term) active controlled (muscarinic antagonist) study were similar in type and severity to those observed in the three 12-week phase 3 double blind, placebo controlled studies. List of adverse reactions: The table below reflects the adverse reactions observed with mirabegron in the three 12-week phase 3 double blind, placebo controlled studies. The frequency of adverse reactions is defined as follows: very common (≥1/10); common (≥1/100 to <1/10); uncommon (≥1/1,000 to <1/100); rare (≥1/10,000 to <1/1,000); very rare (<1/10,000). Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness. Infections and infestations: Common: Urinary tract infection. Uncommon: Vaginal infection, Cystitis. Psychiatric disorders: Not known (cannot be estimated from the available data): Insomnia*. Eye disorders: Rare: Eyelid oedema. Cardiac disorders: Common: Tachycardia. Uncommon: Palpitation, Atrial fibrillation. Vascular disorders: Very rare: Hypertensive crisis*. Gastrointestinal disorders: Common: Nausea*, Constipation*, Diarrhoea*. Uncommon: Dyspepsia, Gastritis. Rare: Lip oedema. Skin and subcutaneous tissue disorders: Uncommon: Urticaria, Rash, Rash macular, Rash popular, Pruritus. Rare: Leukocytoclastic vasculitis, Purpura, Angioedema*. Musculoskeletal and connective tissue disorders: Uncommon: Joint swelling. Reproductive system and breast disorders: Uncommon: Vulvovaginal pruritus. Investigations: Uncommon: Blood pressure increased, GGT increased, AST increased, ALT increased. Renal and urinary disorders: Rare: Urinary retention*. Nervous system disorders: Common: Headache*, Dizziness*. *observed during post-marketing experience. **Full prescribing information is available upon request.**

Reference: **1.** Chapple C.R. et al. Neurourol Urodynam 2014 Jan:33 (1):17-30 **2.** Hong Kong package insert of Betmiga® Apr 2016

Betmiga®
mirabegron

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astellas

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Approaches in prevention of cognitive decline

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New definition of Alzheimer's disease for research

Understanding and effectively treating Alzheimer's disease (AD) and other dementias may be the most difficult challenge for the medical and scientific community in this century. The field has experienced monumental challenges developing new and effective drug therapies. One of those unexpected challenges is recruiting the correct patients for the suitable experimental drug trial. This may at first seem straightforward for AD, but recent evidence demonstrated that up to one in three patients with a label of AD did not actually have AD-related brain damage. The reason for this is that the definition of what constitutes AD has been unclear and the clinical diagnosis may not match the pathological findings. As a result, the "NIA-AA Research Framework: Towards a Biological Definition of Alzheimer's Disease"was published in April 2018[1]. It proposed a shift of the definition of AD for research, from the current one (based on cognitive changes and behavioural symptoms with biomarker confirmation) to a strictly biological construct. Essentially, AD will be defined biologically by the presence of pathological brain changes or their biomarkers, and cognitive impairment will be viewed as a symptom or sign of the disease, rather than its definition. The new framework will use the "AT(N) Biomarker System" that represents three major biomarkers of AD – amyloid, tau, and neurodegeneration. 1) "A" refers to beta-amyloid (Aβ) as measured either by amyloid positron emission tomography (PET) imaging of amyloid plaques or in the cerebrospinal fluid (CSF) as Aβ42 or the Aβ42 to Aβ40 ratio. 2) "T" refers to tau pathology as measured by CSF phosphorylated tau (p-tau) or tau PET imaging of parenchymal neurofibrillary tangles. 3) "(N)" refers to neurodegeneration or neuronal injury and dysfunction, as measured for example by hippocampal volume, cortical volume, or CSF total tau (T-tau). Hence, the term "AD" will refer to patients with both A and T biomarkers, whereas those with A only will be referred to as "Alzheimer's pathological change".

This system is akin to regarding an abnormal HbA1c to indicate the presence of diabetes, or raised cardiac enzymes to indicate an acute myocardial infarction, whether or not clinical symptoms are present. This represents a major evolution in how we think about AD. The major aim of this new framework is to enable the conduct of prevention trials amongst patients with pre-clinical stages of AD, i.e. prior to overt cognitive decline. In addition, it could also be useful in tailoring treatment to the individual when appropriate specific treatments become available one day.

Exercise as medicine to slow down cognitive decline

Mild cognitive impairment (MCI) is regarded as a precursor for AD or other forms of dementia. About 15% of people over 65 years are at risk of developing MCI, and about 50% of these could go on to develop AD within the next 5 years. A new recommendation from the American Academy of Neurology states that exercise could in fact be the best "prescription" for MCI, when no medication is currently FDA-approved[2]. The recommendation is to do a total of 150 minutes of regular aerobic exercise per week. This amount can be broken up in different ways, e.g. 50 minutes x 3 times per week, or 30 minutes x 5 times per week. The important point is that the exercise should be vigorous enough to work up a sweat, but not so strenuous that you cannot hold a conversation. Exercise not only improves memory, it also helps to lower blood pressure, improve cardiac health, combat sleep disturbances, poor appetite and lift the mood. Early actions may keep memory problems from getting worse. Unfortunately, there is no evidence that exercise could stop it altogether.

Sleep and cognitive decline

A new study found that a sleepless night could cause raised levels of Aβ at rates that the brain could not clear as fast as it was produced[3]. The study only recruited 8 people, but each person participated in several different sleep scenarios: staying up all night; getting a typical night's sleep without any sleep aid; or using a prescription sleep medication increased slow-wave sleep (the kind that people need in order to wake up feeling refreshed). Participants were between 30 and 60 years old with no history of sleep problems or cognitive decline. Researchers found that people who were sleep deprived for just one night had Aβ levels that were up to 30% higher than those who got a full night's sleep. Those levels are around what scientists see in the brains of those who are genetically predisposed to Alzheimer's. When Aβ are high, it is more likely that the protein will form into plaques, which is one of the hallmarks of AD. The biggest concern is for people who are chronically sleep deprived. In Hong Kong, at least 30-50% percent of people do not get the recommended minimum of seven hours of sleep each night.

Repatha® (evolocumab)

PREDICTABLE, INTENSIVE LDL-C REDUCTIONS

HELP HIGH RISK PATIENTS* [MI & Stroke] ESCAPE HIGH LDL-C†

ADD REPATHA® AND MAXIMISE LDL-C LOWERING

*High risk patients denote adults with clinical atherosclerotic cardiovascular diseases (such as myocardial infarction and stroke) or heterogenous familial hypercholesterolemia, or adults with homozygous familial hypercholesterolemia.

†As an adjunct to diet and maximally tolerated statin therapy for the treatment of adults with heterozygous familial hypercholesterolemia (HeFH) or clinical atherosclerotic cardiovascular disease (CVD), who require additional lowering of low density lipoprotein cholesterol (LDL-C).

Repatha® (Evolocumab) Abbreviated Prescribing Information
Repatha® (Evolocumab) Solution for Injection in Pre-filled Syringe/ Autoinjector 140mg
INDICATIONS: Repatha® Solution for Injection in Pre-filled Syringe/Autoinjector 140 mg is indicated as an adjunct to diet and maximally tolerated statin therapy for the treatment of adults with heterozygous familial hypercholesterolemia (HeFH) or clinical atherosclerotic cardiovascular disease (CVD), who require additional lowering of low density lipoprotein cholesterol (LDL-C). It is also indicated as an adjunct to diet and other LDL-lowering therapies (e.g., statins, ezetimibe, LDL apheresis) for the treatment of patients with homozygous familial hypercholesterolemia (HoFH) who require additional lowering of LDL-C. **DOSAGE AND ADMINISTRATION**: The recommended subcutaneous dosage of Repatha in patients with HeFH or patients with primary hyperlipidemia with established clinical atherosclerotic CVD is either 140 mg every 2 weeks OR 420 mg once monthly. The recommended subcutaneous dosage of Repatha in patients with HoFH is 420 mg once monthly. To administer 420 mg, give 3 Repatha injections consecutively within 30 minutes. **CONTRAINDICATIONS**: Repatha is contraindicated in patients with a history of a serious hypersensitivity reaction to Repatha. **SPECIAL WARNINGS AND PRECAUTIONS FOR USE**: Allergic Reactions: Rash and urticaria have occurred. If signs or symptoms of serious allergic reactions occur, discontinue treatment with Repatha, treat according to the standard of care, and monitor until signs and symptoms resolve. **ADVERSE REACTIONS**: Common adverse reactions in clinical trials (>5% of patients treated with Repatha and occurring more frequently than placebo): nasopharyngitis, upper respiratory tract infection, influenza, back pain, and injection site reactions. Immunogenicity: As with all therapeutic proteins, there is potential for immunogenicity. There was no evidence that the presence of anti-drug binding antibodies impacted the pharmacokinetic profile, clinical response, or safety of Repatha, but the long-term consequences of continuing Repatha treatment in the presence of anti-drug binding antibodies are unknown. **INTERACTIONS**: An approximately 20% decrease in the Cmax and AUC of evolocumab was observed in patients co-administered with a high-intensity statin regimen. This difference is not clinically meaningful and does not impact dosing recommendations. **PREGNANCY AND LACTATION**: Pregnancy: There are no data available on use of Repatha in pregnant women to inform a drug-associated risk. Breast-feeding: There is no information regarding the presence of evolocumab in human milk, the effects on the breastfed infant, or the effects on milk production. **PEDIATRIC, GERIATRIC, RENAL IMPAIRMENT AND HEPATIC IMPAIRMENT**: Pediatric: The safety and effectiveness of Repatha have not been established in pediatric patients with HoFH who are younger than 13 years old, and in pediatric patients with primary hyperlipidemia or HeFH. Geriatric: In controlled studies, 1420 patients treated with Repatha were ≥ 65 years old and 171 were ≥ 75 years old. No overall differences in safety or effectiveness were observed between these patients and younger patients, and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out. Renal Impairment: No dose adjustment is needed in patients with mild to moderate renal impairment. No data are available in patients with severe renal impairment. Hepatic Impairment: No dose adjustment is needed in patients with mild to moderate hepatic impairment (Child-Pugh A or B). No data are available in patients with severe hepatic impairment.

Abbreviated Prescribing Information Version: HKPI20150007API
Please read the full prescribing information prior to administration and full prescribing information is available upon request.

HK-00333-REP-2017-Jul

AMGEN®

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XGEVA®
denosumab

INDISPENSIBLE PARTNERS TO PROTECT THE BONES

XGEVA® (denosumab) Abbreviated Prescribing Information
XGEVA® (denosumab) Solution for Injection 120 mg
INDICATIONS Indicated for prevention of skeletal related events (pathological fracture, radiation to bone, spinal cord compression or surgery to bone) in adults with bone metastases from solid tumours, and treatment of adults and skeletally mature adolescents with giant cell tumour of bone that is unresectable or where surgical resection is likely to result in severe morbidity. **DOSAGE AND ADMINISTRATION** Supplementation of at least 500 mg calcium and 400 IU vitamin D daily is required in all patients, unless hypercalcaemia is present. Prevention of skeletal related events in adults with bone metastases from solid tumours: The recommended dose is 120 mg administered as a single subcutaneous injection once every 4 weeks into the thigh, abdomen or upper arm. Giant cell tumour of bone: The recommended dose of XGEVA is 120 mg administered as a single subcutaneous injection once every 4 weeks into the thigh, abdomen or upper arm with additional 120 mg doses on days 8 and 15 of treatment of the first month of therapy. Patients with renal impairment: No dose adjustment is required in patients with renal impairment. Patients with hepatic impairment: The safety and efficacy of denosumab have not been studied in patients with hepatic impairment. *Elderly patients (age ≥65):* No dose adjustment is required in elderly patients. Paediatric population: XGEVA is not recommended in paediatric patients (age < 18) other than skeletally mature adolescents with giant cell tumour of bone. **CONTRAINDICATIONS** Contraindicated in patients with hypersensitivity to the active substance or to any of the excipients, and in patients with severe, untreated hypocalcaemia. Contraindicated in patients with unhealed lesions from dental or oral surgery. **SPECIAL WARNINGS AND PRECAUTIONS FOR USE** *Calcium and Vitamin D supplementation*: Supplementation with calcium and vitamin D is required in all patients unless hypercalcaemia is present. *Hypocalcaemia*: Pre-existing hypocalcaemia must be corrected prior to initiating therapy with XGEVA. Hypocalcaemia can occur at any time during therapy with XGEVA. *Renal impairment*: Patients with severe renal impairment (creatinine clearance < 30 ml/min) or receiving dialysis are at greater risk of developing hypocalcaemia. *Osteonecrosis of the jaw (ONJ)*: ONJ has been reported in patients receiving XGEVA. The start of treatment or of a new course of treatment should be delayed in patients with unhealed open soft tissue lesions in the mouth. A dental examination with preventive dentistry and an individual benefit-risk assessment is recommended prior to treatment with XGEVA in patients with concomitant risk factors. *Atypical fractures of the femur*: Atypical femoral fractures have been reported in patients receiving XGEVA. Atypical femoral fractures may occur with little or no trauma in the subtrochanteric and diaphyseal regions of the femur. *Patients with growing skeletons*: XGEVA is not recommended in patients with growing skeletons. Clinically significant hypercalcaemia has been reported in XGEVA-treated patients with growing skeletons weeks to months following treatment discontinuation. *Others*: Patients being treated with XGEVA should not be treated concomitantly with other denosumab containing medicinal products, or with bisphosphonates. **INTERACTIONS** No interaction studies have been performed. **PREGNANCY, LACTATION AND FERTILITY** *Pregnancy*: There are no adequate data from the use of XGEVA in pregnant women. XGEVA is not recommended for use in pregnant women and women of childbearing potential not using highly effective contraception. *Breast-feeding*: It is unknown whether denosumab is excreted in human milk. *Fertility*: No data are available on the effect of denosumab on human fertility. **UNDESIRABLE EFFECTS** Hypocalcaemia has commonly been reported following XGEVA administration, mostly within the first 2 weeks. The most common adverse reactions with XGEVA are musculoskeletal pain. The adverse reactions identified in clinical trials and from post-marketing experience: Very common (≥ 1/10) adverse reactions include: dyspnoea, diarrhoea and musculoskeletal pain. Common (≥ 1/100 to < 1/10) adverse reactions include: hypocalcaemia, hypophosphataemia, tooth extraction, hyperhidrosis and osteonecrosis of the jaw. **OVERDOSE** There is no experience with overdose in clinical studies.
Abbreviated Prescribing Information Version: HKPI20160002
Please read the full prescribing information prior to administration and full prescribing information is available on request.
XGEVA® is a registered trademark owned or licensed by Amgen Inc., its subsidiaries, or affiliates.

Prolia® (Denosumab) Abbreviated Prescribing Information
Prolia® (denosumab) Solution for Injection in Pre-filled Syringe 60 mg/mL
INDICATIONS Prolia is indicated for: i) treatment of postmenopausal women with osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other available osteoporosis therapy; ii) treatment to increase bone mass in men with osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other available osteoporosis therapy; iii) treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for nonmetastatic prostate cancer. In these patients Prolia also reduced the incidence of vertebral fractures; iv) treatment to increase bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer. **DOSAGE AND ADMINISTRATION** The recommended dose of Prolia is 60 mg administered as a single subcutaneous injection once every 6 months. Administer Prolia via subcutaneous injection in the upper arm, the upper thigh, or the abdomen. All patients should receive calcium 1000 mg daily and at least 400 IU vitamin D daily. **CONTRAINDICATIONS** Hypocalcemia and pregnancy, as well as hypersensitivity to any component of the product. **SPECIAL WARNINGS AND PRECAUTIONS FOR USE** *Hypersensitivity*: Clinically significant hypersensitivity including anaphylaxis has been reported with Prolia. Symptoms have included hypotension, dyspnea, throat tightness, facial and upper airway edema, pruritis, and urticaria. *Hypocalcemia and Mineral Metabolism*: Hypocalcemia may be exacerbated by the use of Prolia. Pre-existing hypocalcemia must be corrected prior to initiating therapy with Prolia. Hypocalcemia following Prolia administration is a significant risk in patients with severe renal impairment (creatinine clearance < 30 mL/min) or receiving dialysis. Adequately supplement all patients with calcium and vitamin D. *Osteonecrosis of the Jaw (ONJ)*: ONJ has been reported in patients receiving Prolia. The start of treatment or of a new course of treatment should be delayed in patients with unhealed open soft tissue lesions in the mouth. A dental examination with preventive dentistry and an individual benefit-risk assessment is recommended prior to treatment with Prolia in patients with concomitant risk factors. All patients should be encouraged to maintain good oral hygiene, undergo routine dental check-ups, and immediately report any oral symptoms such as dental mobility, pain or swelling, or non-healing of sores or discharge during treatment with Prolia. While on treatment, invasive dental procedures should be performed with caution and avoided in close proximity to Prolia treatment. *Atypical Subtrochanteric and Diaphyseal Femoral Fractures:* Atypical low-energy or low trauma fractures of the shaft have been reported in patients receiving Prolia. Patients should be advised to report new or unusual thigh, hip, or groin pain. *Multiple Vertebral Fractures (MVF) Following Discontinuation of Prolia Treatment*: Following discontinuation of Prolia treatment, fracture risk increases, including the risk of multiple vertebral fractures. If Prolia treatment is discontinued, consider transitioning to an alternative antiresorptive therapy. *Serious Infections*: Serious infections leading to hospitalization were reported in clinical trial. Advise patients to seek prompt medical attention if they develop signs or symptoms of severe infection, including cellulitis. *Dermatologic Adverse Reactions*: Dermatitis, eczema, and rashes. Most of these events were not specific to the injection site. Consider discontinuing Prolia if severe symptoms develop. Musculoskeletal Pain: Severe and occasionally incapacitating bone, joint, and/or muscle pain. Consider discontinuing use if severe symptoms develop. *Suppression of Bone Turnover:* In clinical trials treatment with Prolia resulted in significant suppression of bone remodeling as evidenced by markers of bone turnover and bone histomorphometry. *Osteonecrosis of the external auditory canal:* Osteonecrosis of the external auditory canal has been reported with denosumab. Possible risk factors include steroid use and chemotherapy and/or local risk factors such as infection or trauma. **INTERACTIONS** In subjects with postmenopausal osteoporosis, Prolia (60 mg subcutaneous injection) did not affect the pharmacokinetics of midazolam, which is metabolized by cytochrome P450 3A4 (CYP3A4), indicating that it should not affect the pharmacokinetics of drugs metabolized by this enzyme in this population. **PREGNANCY AND LACTATION** *Pregnancy*: Pregnancy: Category X. *Breast-feeding*: It is not known whether Prolia is excreted into human milk. **PEDIATRIC, GERIATRIC AND RENAL IMPAIRMENT** *Pediatric*: Prolia is not recommended in pediatric patients. *Geriatric:* No overall differences in safety or efficacy were observed in clinical studies between elderly patients and younger patients and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out. *Renal Impairment:* No dose adjustment is necessary in patients with renal impairment. **UNDESIRABLE EFFECTS** The most common adverse reactions reported with Prolia in patients with postmenopausal osteoporosis are back pain, pain in extremity, musculoskeletal pain, hypercholesterolemia, and cystitis. The most common adverse reactions reported with Prolia in men with osteoporosis are back pain, arthralgia, and nasopharyngitis. The most common (per patient incidence ≥ 10%) adverse reactions reported with Prolia in patients with bone loss receiving androgen deprivation therapy for prostate cancer or adjuvant aromatase inhibitor therapy for breast cancer are arthralgia and back pain. Pain in extremity and musculoskeletal pain have also been reported in clinical trials. The most common adverse reactions leading to discontinuation of Prolia in patients with postmenopausal osteoporosis are back pain and constipation. **OVERDOSE** There is no experience with overdosage with Prolia.
Abbreviated Prescribing Information Version: HKPROPI01
Please read the full prescribing information prior to administration and full prescribing information is available on request.
Prolia® is a registered trademark owned or licensed by Amgen Inc., its subsidiaries, or affiliates.

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HK-01285-XGA-2018-Jun
4iC_567

EXELON® PATCH
(rivastigmine transdermal system)

Defending against decline

ARE YOUR DECLINING ALZHEIMER'S DISEASE PATIENTS **LOSING THEIR INDEPENDENCE?**

HELP PATIENTS COPE WITH PERSONAL HYGIENE **AND OTHER BASIC ACTIVITIES OF DAILY LIFE**

EXELON PATCH 10 cm² showed superior efficacy to placebo over 24 weeks

EXELON PATCH 10 cm² significantly improved **Activities of Daily Living (ADLs),** such as the ability to **groom** and **dress**[1]

ITT-LOCF=Intention to treat–last observation carried forward.

- EXELON PATCH 10 cm² showed superior efficacy over placebo as measured by improvement in the Alzheimer's Disease Cooperative Study-Activities of Daily Living (ADCS-ADL) scale and global functioning over 24 weeks ($P<.05$)[1]

EXELON® Patch 5
EXELON® Patch 10
EXELON® Patch 15

Important note: Before prescribing, please consult full prescribing information.

Presentation: Exelon Patch 5 contains 9 mg rivastigmine. The release rate is 4.6 mg/24 h.
Exelon Patch 10 contains 18 mg rivastigmine. The release rate is 9.5 mg/24 h.
Exelon Patch 15 contains 27 mg rivastigmine. The release rate is 13.3 mg/24 h.

Indication: Symptomatic treatment of mild to moderately severe Alzheimer's dementia.

Dosage: Initiation and re-initiation of therapy should start with one Exelon Patch 5 each day. If well tolerated, it may be increased after a minimum of 4 weeks of treatment to one Exelon Patch 10 each day which should be continued for as long as the patient continues to demonstrate therapeutic benefit. If well tolerated and only after a minimum of six months of treatment as Exelon Patch 10 each day, the treating physician may consider increasing the dose to Exelon Patch 15 each day in patients who have demonstrated a meaningful cognitive deterioration (e.g. decrease in the MMSE) and/or functional decline (based on physician judgement) while on the recommended daily effective dose of 9.5 mg/24 h.
Consider using Exelon Patch 5 each day both as initial and maximum dose in patients with renal or hepatic impairment.
Switching from capsules or oral solution to transdermal patches
Patients treated by rivastigmine capsules or oral solution with a maintenance dose of 3 to 6 mg/day may be switched to Exelon Patch 5 each day. A patient on a stable and well tolerated dose of 9 mg/day rivastigmine capsules or oral solution can be switched to Exelon Patch 10 each day. If the oral dose of 9 mg/day has not been stable and well tolerated, a switch to Exelon Patch 5 is recommended. A patient on a dose of 12 mg/day Exelon capsules or oral suspension can be switched to Exelon Patch 10. After switching to Exelon Patch 5, provided these are well tolerated after a minimum of four weeks of treatment, the dose of Exelon Patch 5 each day should be increased to Exelon Patch 10 each day, which is the recommended effective dose. It is recommended to apply the first transdermal patch on the day following the last oral dose.

Method of administration: Transdermal patches should be applied once a day to clean, dry, hairless, intact healthy skin on the upper or lower back, upper arm or chest, in a place which will not be rubbed by tight clothing. It is not recommended to apply the transdermal patch to the thigh or to the abdomen due to decreased bioavailability of rivastigmine observed when the transdermal patch is applied to these areas of the body. The transdermal patch should not be applied to skin that is red, irritated or cut. Reapplication to the exact same skin location within 14 days should be avoided to minimise the potential risk of skin irritation.

Contraindications: ♦Known hypersensitivity to rivastigmine, other carbamate derivatives, or other ingredients of the formulation. ♦Previous history of application site reactions suggestive of allergic contact dermatitis with rivastigmine transdermal patch.

Precautions/Warnings: Medication misuse and dosing errors with Exelon transdermal patch (e.g. not removing the old patch when putting on a new one and the use of multiple patches at one time) have resulted in serious adverse reactions, some cases have required hospitalization, and rarely led to death. Patients and their caregivers must be instructed on important administration instructions for Exelon transdermal patch. ♦If treatment is interrupted for longer than three days, treatment should be re-initiated with Exelon Patch 5. Gastrointestinal adverse effects have been observed at initiation of therapy and shortly after dose increase. Patients who show signs or symptoms of dehydration resulting from prolonged vomiting or diarrhoea can be managed with intravenous fluids and dose reduction or discontinuation if recognised and treated promptly. ♦Patient's weight should be monitored during therapy with Exelon Patch. ♦Rivastigmine may exacerbate or induce extrapyramidal symptoms. ♦As with other cholinomimetics, caution is recommended in patients with sick sinus syndrome, conduction defects (sino-atrial block, atrio-ventricular block), gastroduodenal ulcerative conditions, history of asthma or obstructive pulmonary disease, urinary obstruction and seizures in predisposed patients. ♦In case of disseminated skin hypersensitivity reactions with the use of rivastigmine, treatment should be discontinued. Use of rivastigmine patch may lead to allergic contact dermatitis, in this case treatment should be discontinued and patients should be switched to oral rivastigmine only after negative allergy testing and under close medical supervision. Some patients sensitized by exposure to rivastigmine patch may not be able to take rivastigmine in any form. ♦Caution in patients with clinically significant renal or hepatic impairment. ♦Caution in patients with body weight below 50 kg: carefully titrate and monitor these patients for adverse reactions (e.g. excessive nausea or vomiting) and consider reducing the dose to Exelon Patch 5 each day if such adverse reactions develop. ♦Exelon should not be used during pregnancy unless clearly necessary. Women on Exelon should not breast-feed.

Adverse reactions: Common: urinary tract infection , anorexia, decreased appetite, anxiety, depression, delirium, agitation, headache, syncope, dizziness, nausea, vomiting, diarrhoea, dyspepsia, abdominal pain, rash, urinary incontinence, application site skin reactions (e.g. erythema, pruritus, oedema, dermatitis, irritation), asthenic conditions (e.g. fatigue, asthenia), pyrexia, weight decreased.
Uncommon: dehydration, aggression, psychomotor hyperactivity, bradykinesia, gastric ulcers.
Rare: fall.
Very rare: extrapyramidal symptoms.
Not known: hallucinations, restlessness, nightmares, worsening of Parkinson's disease, seizure, atrioventricular block, atrial fibrillation, tachycardia, sick sinus syndrome, hypertension, pancreatitis, hepatitis, elevated liver function tests, pruritus, erythema, urticaria, vesicles, allergic dermatitis, disseminated cutaneous hypersensitivity reactions.

Interactions: Concomitant use not recommended with metoclopramide, cholinomimetic drugs, anticholinergic medications, succinylcholine-type muscle relaxants during anaesthesia.
Interaction to be considered in case of concomitant use with beta-blockers or nicotine.

Packs: 30s.
Legal classification: P15133
Ref - EMA June 2013_IPI Jan 2010 0799i

References: 1. Winblad B, Cummings J, Andreasen N, et al. A six-month double-blind, randomized, placebo-controlled study of a transdermal patch in Alzheimer's disease—rivastigmine patch versus capsule. Int J Geriatr Psychiatry. 2007;22:456-467.

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HK-170000-08

On the other hand, AD itself can cause changes in the brain that lead to a disruption of their internal clock, which disturbs sleep and leads to behaviours like rummaging in the middle of the night or sleeping through the day. Another study has shown that a change in circadian rhythm actually occurs much earlier than previously thought, in people who have normal memory recall, but may actually be in the preclinical stage of AD, i.e. showing signs of Aβ plaques in the brain but no overt symptoms of cognitive decline. This study investigated 189 cognitively normal older adults[4]. All were tested for levels of Aβ via a PET scan or by measuring cerebrospinal fluid. Most of the 189 adults were normal sleepers without signs of Aβ. But of the 50 that did have abnormal test results for Aβ, all had significant disruptions in their internal clocks (total sleeping hours and fragmented sleeping pattern). Although this demonstrates that disruptions in circadian rhythms may serve as a biomarker for preclinical disease, the directionality of causation remains unclear – whether circadian rhythm disruption leads to AD, or if the disruption is an early symptom of the disease.

Alcohol and dementia

The neurotoxic effects of alcohol on brain health remain controversial and unclear. Some dementia experts believe that a glass of red wine is beneficial in preventing AD, whereas others regard alcohol in any amount as dangerous for the brain. A new study found that, according to data from over 13,300 men and women, excessive alcohol could be a serious risk to cognitive health, especially after middle age[5]. Researchers pulled participants from a large database called the UK Biobank, to which volunteers reported medical data, including how often they drank alcohol. People enrolled in this study reported drinking once or more per week. They were given reaction-time tests using a computer programme over 5 years. Researchers found that drinking up to 10 grams of alcohol per day (a glass of wine is about 16 grams) was associated with an improved reaction time, but anything more the 10 grams per day was related to a decline in reaction time. The current recommendation in the UK for alcohol consumption is no more than 16 grams per day; the US recommends no more than one drink for women and two for men. These findings suggest that 10 grams per day (the equivalent of a light beer or a half glass of wine) would be a more prudent recommendation, especially for older adults.

Diet and dementia

What can we eat to reduce our risk of developing AD? A diet which focuses on vegetables and whole grains, and moderate on fish, poultry and wine, may lower the risk of developing AD by up to 53%. This diet is also known as the MIND Diet. It combines the Mediterranean and the DASH (Dietary Approaches to Stop Hypertension) diets, which have both been shown to have protective effects against cardiovascular conditions that in turn can impact brain health. The MIND diet recommends two or more servings of berries and at least 6 servings of green leafy vegetables (e.g. kale, spinach and lettuce) per week, eating nuts throughout the week, beans nearly every other day, 3 servings of whole grains per day, at least one fish meal and two poultry meals per week and one glass of wine per day. The MIND diet recommends limiting red meats, pastries and sweets; consuming less than one tablespoon of butter and stick margarine per day, and less than one serving of cheese and fast food per week. In a landmark study followed over 900 people between the ages of 58 and 98 years old without dementia, those who adhered to the diet the best had a 53% reduction in the risk of AD, and those who were moderately adherent to the diet still had a 35% reduction rate[6]. This demonstrates the connection between heart and brain health; and since there is clear evidence that diet influences heart health, it is of no real surprise that brain health can also be improved. Cardiovascular conditions such as hypertension, heart disease, diabetes, stroke and obesity are associated with AD, and diet is an important risk factor for all of these conditions. What remains unclear is how physical and cognitive exercises interact with the MIND diet, and whether health supplements (e.g. vitamin B, choline) provide additional benefits.

Retirement and cognitive decline

"Use it or lose it" is the rule of thumb for brain ageing, but is it true when it comes to retirement? The idea is that if you do not regularly exercise your brain with social interactions and challenges, this lack of activity could accelerate cognitive decline or even the onset of dementia. A new large British study showed that short-term memory declined almost 40% faster when employees transitioned to retirees, even when they controlled for normal age-related decline[7]. The study tracked over 3,400 civil servants who were part of a long-term health research project. They gave the participants memory tests for up to 28 years, from 14 years before retirement to 14 years after retirement. These tests measured verbal memory, word recall, reasoning and verbal fluency. Even taking age-related cognitive decline into their calculations, they still found that retirement was associated with a 38% fall in verbal memory. Participants who held higher ranking jobs did better on the verbal memory tests while they were employed, but that protective effect dropped off once they entered retirement.

Eye is the window to your brain

Although the retina is outward facing, it's made up of neurons that communicate directly with the brain, making it an easy and accessible way to track what may be going on in the brain. A new study found that people whose eyes showed changes in small blood vessels at age 60 may be more likely to develop cognitive problems by age 80[8]. The small blood vessels reflected in the eyes could be a roadmap to what is going on in the brain because the blood vessels in the eyes and the brain are so similar anatomically. Researchers looked at the eyes of 12,317 people over 20 years. They gave them memory and thinking tests and took pictures of their eyes using a special retinal camera. Of all the people analyzsed, about 5% had some sort of retinal damage. People with moderate to severe damage, researchers observed, were more likely to have a dip in their memory score, compared to people with healthy eyes. This is consistent with previous evidence that suggests

賽馬會耆智園的服務

賽馬會耆智園是一所非牟利腦退化症綜合服務中心，於２０００年投入服務。本園由香港賽馬會慈善信託基金捐助成立，並由香港中文大學管理，致力為腦退化症人士提供一站式服務及訓練，減慢認知能力的衰退速度，維持正常的社交活動，並透過各項支援服務紓緩腦退化症人士家屬的身心壓力，同時積極進行培訓及研究，推動腦退化症服務發展。

本園擁有一組專業人員，當中包括社工、職業治療師、物理治療師、護士、醫生、營養師、照顧員及科研人員等。本園更得到學術研究人員的指導及建議，並不斷進行各項專業研究。服務內容如下：

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that the retina thins before the onset of fronto-temporal dementia (FTD), and that Aβ could show up in the eye the same way it shows up in the brain, but up to 20 years before symptoms begin.

Finding new drugs for AD

There are currently only 5 drugs approved by the FDA for the treatment of AD. Only 3 drugs have been approved in the last 14 years, and more than 100 new drugs have been halted in development. The best any drug can do is help some of the people some of the time for a while. Eventually they all stop working. Nothing cures AD and nothing does any better than slowing the progression for a time. Contrast this with the fact that around half of all cancer trials show positive results. Pfizer, one of the world's biggest pharmaceutical companies, recently announced that they would abandon all investment on research into AD and Parkinson's disease. High profile drugs like intepirdine and idalopirdine, have all recently failed to slow the progression of the disease. However, much of what we know about AD was discovered through failed trials. Optimists believe that these additions to the body of scientific knowledge will eventually lead to therapies that could successfully slow, stop or prevent this devastating disease in the future. In the UK, the Alzheimer's Society has committed £50m to fund new research at the UK Dementia Research Institute (UK DRI) alongside Alzheimer's Research UK and the Medical Research Council. By working to understand the processes that cause dementia in unprecedented detail, the UK DRI researchers aim to reinvigorate the pipeline for drugs that can slow, stop or prevent this devastating condition. In the USA, the Alzheimer's Association is also launching the US POINTER study this year, the first of its kind in the US, that will look at how multi-dimensional lifestyle interventions affect the risk of AD. The Alzheimer's Association has committed more than $20m to advance 23 clinical trials that look at various aspects of AD. So, the hope remains alive for a breakthrough in the next decade of dementia research.

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Dermatology Quiz

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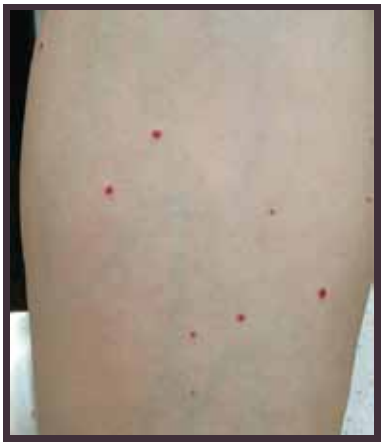

Fig.1: multiple reddish spots on right forearm

A 55-year-old man complained of multiple reddish growths on his forearms. He did not remember the duration of onset clearly. It seemed to have started several years ago and noted increasing in number. Physical examination revealed multiple small reddish dome-shaped papules on the forearms, otherwise, it was asymptomatic.

Questions

1. What is the diagnosis of the skin lesion?
2. What is the underlying pathology?
3. How do you manage this gentleman?

(See P.44 for answers)

Recognition and Management of Anxiety and Depression in Older People

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Anxiety and depressive disorders are highly prevalent mental conditions across the lifespan. These mental disorders cause significant impact on a person's psychosocial functioning. In the Global Burden of Disease Study 2015, mental and behavioural disorders were the leading causes of years lived with disability (YLDs).[1] In the US, diseases causing the largest number of YLDs were low back pain, major depressive disorders, other musculoskeletal disorders, neck pain and anxiety disorders.[2] In older adults, these conditions are no less common. Quite on the contrary, recognition and management of these conditions in the older adults are frequently complicated by comorbid cognitive impairments and medical diseases.

Recognition of anxiety disorders

Anxiety syndromes

Anxiety disorders are a group of related syndromes characterised by excessive worries that affect a person's psychosocial functioning. Generalised anxiety disorder refers to a state of *pervasive free floating anxiety* lasting for a period of usually over 6 months. The persistent worries are subjectively irrational, excessive and difficult to control. Anxiety feelings are associated with restlessness, fatiguability, difficulty in concentrating, muscle tension and sleep disturbances. Panic disorder, on the other hand, refers to a condition occurring for at least one month. Patients suffering from panic disorder experience *recurrent short episodes of unexpected rapid surge* of intense fear or discomfort with palpitation, sweating, shaking, shortness of breath, abdominal discomfort, dizziness, sense of losing control and impending death. Phobic disorder is characterised by marked fear or anxiety about a *specific situation or objects*. Outside the situation, the person does not usually experience distressing anxiety symptoms.[3]

Common comorbid conditions

In cognitively intact older adults, the presentation of anxiety symptoms does not differ significantly from younger age groups. However, even in people with apparently intact functioning, it is important to recognise that the complaints of late-onset anxiety may signify subtle cognitive decline. According to findings of recently published studies, it is increasingly recognised that people with anxiety symptoms may have higher risks of cognitive decline, and some exhibit pre-clinical Alzheimer's pathology.[4,5] Thus, it is important to inquire beyond the presentation of excessive worries and explore features of cognitive decline. If necessary, a screening test for cognitive function such as the clock drawing test or Montreal Cognitive Assessment may add information as to comorbid cognitive impairment.[6,7] It is also common that anxiety symptoms are manifestation of physical health problems. People with cardiac arrhythmia, respiratory distress and anaemia may have somatic symptoms mimicking anxiety disorders.

Recognition of Depressive disorders

Depressive syndromes

Depressive disorder is characterised by a period, usually two weeks or more, of depressed mood, loss of interest, pessimistic thoughts, reduced activity level and depressive cognition.[3] Depressive cognition refers to a persistent negative world view with a sense of guilt, uselessness and hopelessness. The syndrome is also associated with somatic symptoms such as insomnia, weight loss, psychomotor retardation, constipation and loss of libido. In moderate to severe depression, there is risk of deliberate self harm, suicide and violence. During the assessment of depressive syndromes in the elderly, assessment of risk is of paramount importance. The past history, current planning and hopelessness are alerts for clinicians. In terms of activity level, many patients present with reduced activity levels, but some patients may present with agitation and irritability. Psychotic symptoms of delusions and hallucinations with sad themes may be associated with severe depression in the elderly, which was described as melancholia in the older literature.

Depressive symptoms are relatively common in the older community. From previous studies in Hong Kong, it is estimated that around 4% of people over 60 years of age reported significant depressive symptoms.[8] Women and people with cancer, Parkinson's disease and history of stroke were associated with higher risks of suffering from depressive symptoms. People who suffer from depressive symptoms for over 2 years are usually considered as having dysthymia.

Common comorbid conditions

While psychosocial stressors are acknowledged significant contributors that may trigger or perpetuate the mood symptoms, it is equally important to recognise that depression could be associated with many physical conditions. Chronic pain and persistent physical distress are understandably associated with the development of adverse mood state. It has also been reported that malignancy is associated with early manifestations of depressed mood, which may be independent of clinical status of the tumour.[9] Medication frequently used in the

geriatric patients such as adrenergic blockers, calcium channel blockers, statins, steroids, anti-parkinsonian agents may cause depression. The temporal relationship between onset of depressive symptoms and introduction of additional medication will give a clue as to the potential causal relationship.

Significance of cognitive impairment

Depression in the older community bears a complex bidirectional relationship with cognitive impairment. In older patients presenting with major depressive disorders, it is frequently associated with impaired executive function, poor motivation and abulia. The depressive dysexecutive syndrome has been hypothesised as related to disturbances in frontal subcortical circuitry implicated in late-life depression, especially prevalent in patients with white matter ischaemia and small vessel disease.[10,11]

Towards the more severe spectrum of vascular burden in the brain, people with vascular dementia also present with significant depression. Depressive syndrome does not only occur in post-stroke depression, it is also prevalent in the subcortical vascular dementia where the frontal subcortical circuitry is affected by chronic ischaemia of small vessels and infarcts. With the high prevalence of diabetes, hypertension and hyperlipidaemia in Hong Kong, the risks of vascular dementia presenting with depressive mood are substantial.

Management of Anxiety and depressive symptoms

Management of depression and anxiety in older adults requires a comprehensive approach. Clinicians consider strategies that alleviate the mood symptoms, detect medical comorbidity or dementia, and optimise independent functioning. A quick inquiry of changes in the psychosocial situations, physical examination, drug history and cognitive screen will help to minimise the risks of omission. Attention to medical disorders with optimal control of cerebrovascular risks and chronic pain constitute an important dimension of medical management.

Non-pharmacological approaches

For many patients with mild anxiety and depressive symptoms, lifestyle advices should not be considered purely a layman's approach. Physical exercise has been reported as beneficial to depressive symptoms and may be useful alternatives or adjuncts to milder mood problems. There is also evidence to suggest that mind body exercises such as yoga or tai chi, are also beneficial for a range of stress-related symptoms.[12-15] As a piece of therapeutic advice to older adults, attention should be paid to avoid exercise-related injury and optimise tolerability in older adults. It is also equally important to state the importance of continued practice for beneficial effects to be maintained. Stress management techniques such as breathing exercise and progressive muscle relaxation are useful for anxiety symptoms. Older adults with cognitive decline and compromised functioning experience great limitations in initiating changes towards healthy lifestyles. They should be advised, with the engagement of family members, for structured activity interventions widely available in elderly centres around Hong Kong.

Pharmacological intervention

Drug use in the elderly should have a good balance of risks and benefits. For severe symptoms of anxiety, psychotropic medication may be considered after non-pharmacological approaches have been optimised.

Selective serotonin reuptake inhibitors (SSRI) (e.g. sertraline, citalopram or paroxetine), nor-adrenergic and specific serotonin antidepressant (e.g. mirtazapine) are considered potential treatment for moderate to severe anxiety and depressive symptoms. SSRIs with sedative effects are considered relatively safe. On the other hand, it is important to observe for drug-drug interactions, or adverse effects such as hyponatraemia, which is more common in the older age group. In patients who develop lethargy and reduced responsiveness with recent administration of antidepressant, the possibility of hyponatraemia should be considered.

Pregabalin, a GABA analogue, is an approved drug for epilepsy and neuropathic pain.[16] It is also approved for the treatment of generalised anxiety disorders in Europe. Pregabalin has significant anxiolytic effects and may substitute the use of benzodiazepine for anxiety in the elderly. Benzodiazepine acts on the GABA receptor and possesses sedative properties. It could be used as hypnotics and anxiolytic for prominent symptoms. However, owing to the risks of respiratory suppression, drowsiness and potential dependence, its use in older adults should be considered very carefully. If prescription is necessary, the duration should be short to avoid tolerance and dependence.

In patients with dementia presenting with mood symptoms such as apathy or irritability, treatment with acetylcholinesterase inhibitors and memantine (for moderate to severe Alzheimer's disease) may help to reduce mood and other behavioural disturbances secondary to the dementia syndrome.

Summarising current understanding, mood disorders in older adults are common and affect psychosocial functioning. A high index of suspicion for comorbidity will guide clinicians towards appropriate treatment and minimise polypharmacy.

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Prevention of suffering at the end of life for our older population

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Humanistic care should be available throughout the disease trajectories in our older people right till the end of life. Older patients often fear not so much their death, but any suffering that may be associated with the dying process. The conceptualisation of suffering is different with different individuals, and it crosses multiple dimensions. While death may be inevitable, the pain and suffering can be prevented or ameliorated. As the guru of geriatrics Prof Bernard Issacs once commented, the undiagnosed is not the same as the irremediable. This notion applies equally to the physical and psycho-spiritual symptoms at the end of life. There has been much advance in palliative medicine over the last couple decades, with research proving that early application of palliative care in conjunction with usual care can enhance both quality and quantity of life.[1,2]

Urgent need of palliative care in an ageing society

Palliative care for our older people should hence not be denied for whatever reason. The myth that older people require less or no palliative care is a mere perpetuation of ageism. Older people can feel the total pain as much as the young. Older people do not have higher thresholds of anxiety and depression. Older people are not necessarily more tolerant of bereavement. Older people deserve all the support they need when facing advanced incurable diseases. In fact, older people would be equally if not more receptive to the modern notion of integrated palliative care, as it is not about giving up hope.

Traditionally hospice and palliative care originated from the care of patients with incurable cancers. Cancer is of course a disease of the aged, and older people with cancers continue to need our best palliative support. Lately, due attention has also been given to palliative care for non-cancer conditions, such as end-stage organ failures and neurodegenerative diseases. Such conditions and other advanced chronic diseases are also more prevalent in the older population and require full attention. Frailty as a geriatric syndrome however may yet be the category with the most prevalent indication, in a rapidly ageing population.[3] Although frailty syndrome has a typical gradual downhill course which may not be easily recognised, early integrative approach with palliative support should be advocated. A long inexorable decline actually requires much more support, for both patients and caregivers.

The World Health Organization Regional Office for Europe published a global policy in 2011 to promote better palliative care for older people.[4] The policy stipulated multiple key directions to follow, from establishment of public health policy, whole system approach in improving palliative care for older people in hospitals and communities, national awareness and education, to advance care planning, place of death, and care for family caregivers. Palliative care for dementia was especially highlighted.

Prompt relief of symptoms and burden

Our older patients face multiple morbidity and symptoms with their associated burden. Top physical symptoms include pain, breathlessness, and fatigue. Full discussion on treatment of the various symptoms are beyond the remit of this article, while guidance in palliative management of pain and other symptoms in older people are available both locally and internationally.[5,6]

There are several key principles in palliating symptoms for older patients which are most worthy of note. Firstly, each symptom necessitates a multidimensional approach. Dame Cicely Saunders, mother of Palliative Care first coined the term total pain, reminding us that pain embraces physical, psychological, social and spiritual components. The principle equally applies in other symptoms. Dyspnoea causes fear and anxiety which aggravates or precipitates further dyspnoea. Nausea and vomiting is complicated with psychological cause and effect. Fatigue can be attributed to many non-physical causes such as depression or demoralisation.

A second principle therefore central to the practice of palliative care for older people would be the comprehensive assessment with trans-disciplinary approach. The comprehensive assessment for older people at the end of life should include a much wider spectrum, covering functional independence, burden and self-perceived burden, carers support system, dignity, participation, quality of life and quality of death. Engagement with skilful co-ordination of input from other disciplines such as clinical psychologists, spiritual care workers, volunteers and community partners is needed for older people at the end of life. It is only with adequate assessment and a full range of support that the older persons can hope for ageing and dying in their place of choice.

A third key principle in relieving symptoms at the end of life is ethical decision-making especially when facing clinical dilemmas. The principles of autonomy, beneficence, non-maleficience and justice need to

be adhered to with minimal infringement. The best interests of our older patients should be followed. The balance of maximum benefit with minimal harm must be pursued, especially for older people facing incurable and terminal illnesses. In this regard, futility of treatment and investigations must be duly recognised. An intervention at the end of life which offers 50% chance of likely benefit but inflicting 48% chance of harm with a potential net gain of only 2% in well-being, will not be desired by most. It is fully understood that medical and health professionals should strive the best in providing a cure, but when cure is no longer realistic, best supportive care should be the goal. Best interests should always reflect the interests of patients rather than that of professionals, especially at the end of life. Consensus of best interests from patients perception may in some situations be albeit difficult to achieve, given the inherent family dynamics in Chinese culture. Autonomy of the patient should always be respected. Good advance care planning is therefore pertinent, especially if opportunity is available while the patient is still cognitively sound.

Timely preparation with advance care planning

Early advance care planning is therefore a required care component in palliative and end-of-life services, especially for older patients. Advance care planning ranges from do not attempt cardiopulmonary resuscitation, no artificial feeding, no invasive interventions to no parenteral fluids or antibiotics. In overseas countries, advance care planning can also include the decision not to hospitalise, or not to be transferred to acute care settings. It should be noted that advance care planning cannot demand futile or harmful treatments. Advance directive can be documented specifically after thorough advance planning discussion with patients and with family understanding. The objective of an advance directive is to minimise suffering and distress, in scenarios like terminal illness, or irreversible coma, or specific end-stage irreversible life-limiting conditions. Advance directive is not fully legalised in Hong Kong. In a recent survey by the Federation of Medical Societies of Hong Kong, amongst a return of 799 questionnaires by doctors and dentists, and 775 questionnaires by the general public, 67% and 63% support legislation for advance directive respectively.[7] In the same survey, 54% of the doctors and dentists and 53% of the general public prefer dying at home. Time is ripe for more consultations amongst the policy makers and public in respecting and fulfilling patients' choices at the end of life.

Early partnership decision-making through serious illness communication

In order to achieve optimal advance care planning, good communication skills are mandatory. Professionals should be empathic and sensitive to patients' emotions and concerns. Their viewpoints and preferences for their planning at the end of life need to be acknowledged and respected, given the diverse educational and cultural background of our patients, even though they may not be seemingly the best or most obvious choices. A partnership decision-making process is best for person-centred care, compared to the traditional paternalistic or a laissez faire approach.

In a thorough communication on advance planning with serious illnesses, a structured approach can much facilitate the process. A team at Harvard University has pioneered a Serious Illness Conversation Guide,[8] which has since been applied internationally. The guide is not a checklist, and it utilises a step by step approach. It begins with introducing the purpose of discussion, setting the scene, and gaining the patient's rapport. The patient's understanding of current illnesses is explored, with ascertaining of how much they want to know further. The next step is then to help patients to identify their strengths, preferences and especially trade-offs, i.e. which attributes the patient considers most important , and will wish to retain in lieu of suffering from invasive and futile interventions. Finally the discussion will close with the physician helping the patient to identify the goals and plan, which are to be documented and regularly reviewed. The guide has a concise list of twelve questions addressing the above. A Hong Kong Chinese translation of the guide has been developed and verified with back translation by the editor of this issue and his colleagues. A video for sharing will be available on line in the webpage of the Institute of Ageing of the Chinese University of Hong Kong.

Enhancement of quality of life and alleviation of suffering

The ultimate outcome in palliative care for all ages is quality of life. Quality of life has since been more than a research concept, but is measurable and amenable to enhancement with services and initiatives. Overseas studies have already demonstrated the beneficial effect of palliative services on quality of life. A local study has also confirmed that palliative services can maintain quality of life in the last two weeks of life.[9] Meta-analyses have further confirmed a definite beneficial effect in quality of life from specialist palliative services.[10] The benefit derived from the delivery of services analysed in this meta-analysis is albeit small, and continuous effort is needed to explore how to maximise the therapeutic effect. Evidence points to the direction that specialist services should be offered early for patients with complex needs. Quality of life of caregivers will also interact with quality of life of patients, and warrant further research.

In the clinical setting for individual patients, quality of life enhancement requires consideration in the main dimensions of physical, psychological, social, support, and spiritual/existential well-being. The spiritual well-being is especially important at the end of life, covering issues like the meaning of life, achieving life goals, burden, and whether life is worthwhile. This spiritual/existential domain can be understood by our local Chinese patients, and in fact is the most important domain in predicting overall quality of life.[11] The McGill Quality of Life-Hong Kong version is available for assessing patient's well-being and impact of services. The spiritual/existential domain questions are of course helpful in identifying any spiritual suffering, which if unrelieved may lead to desire to hasten death.

Suffering is a subjective and dynamic experience like quality of life, and requires equally an integrated view. Each patient's suffering is different, with multiple factors like biographical, biological and physical, psychospiritual, cultural, social, environmental, as well as time and illness progression factors at play.[12] Treatment implications are therefore also multi-dimensional, best provided through a biopsychosocial and a spiritual approach. While prevention and alleviation of suffering is the goal, it should be remembered that one has to be in an ideal world to be free of any suffering. Suffering is an intentional state that can be altered by coping, resilience, transcendence and growth. As Dr Eric Cassell stated, the relief of suffering as well as the cure of disease must be seen as the twin obligations of a medical profession that is truly dedicated to the care of the sick. Physicians' failure to understand the nature of suffering can result in medical interventions that not only fail to relieve suffering, but become a source of suffering itself.[13]

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Lifestyle in the Golden Age – Interview with Dr Ching-choi LAM

Dr Ching-choi LAM

BBS, JP, MBBS(HK), FHKAM(Paediatrics), FHKCPaed, FHKCCM, MRCP(UK), DCH(Ireland)

Chairman, Elderly Commission
Member, Executive Council of HKSAR
CEO, Haven of Hope Christian Service

Dr Ching-choi LAM

In early agricultural society, the concept of "retirement" did not exist as the life expectancy was rather short and people generally died at an early age. Such concept did not surface until the time of the "Industrial Revolution" in order to protect the workers from being exploited. Hong Kong is recognised as the city with the longest life expectancy. The issue of the ageing population in Hong Kong has stirred a much debated issue in society. At the same time, people are more concerned about the quality of their retirement lives. Have you ever considered what your retirement life would be like after 60 or 65 years old?

This time, Dr Ching-choi LAM, Chairman of the Elderly Commission, was interviewed by Dr Raymond See-kit LO, our Immediate Past President and Issue Editor. During the interview, they discussed and exchanged views on different issues related to life from retirement and beyond.

To retire or not to retire

Q. : How should we prepare for our retirement lives?

Dr LAM thought that the best option is not to retire, or else, an alternative would be delaying the retirement. However, if these are not feasible, the retirees should still try to make contribution to society. There is a famous saying, "the biggest epidemic in the world is loneliness, especially among the elderly." As elderly people generally have fewer social responsibilities and lower social status upon retirement, they may experience a reduction of personal value which brings great suffering and loneliness. These can also lead to depression, other diseases or even suicides. Imagine if one-third of the elderly population have unstable emotion or suffer from various diseases, it will undoubtedly cause a great burden to the society. Thus, the most vital, as well as challenging, task ahead of us is to assist the elderly to find their purposes and meanings of life. For example, the society should be restructured so that the retirees can continue their contribution after retirement. It leads to a concept called "ageless employment."

Q. : How can "ageless employment" be put into practice in Hong Kong?

A number of studies reveal the fact that there is an adverse effect on the retirees' physical and mental health if they do nothing after retirement. Hence, ageless employment is one of the solutions. It is Dr LAM's firm belief that ageless employment is practical among most of the doctors in the medical field. "Although it is still difficult to be practised in public systems, policies should be modified in the society so that everyone can have the opportunity to make contribution. For those who are less physically capable, part-time jobs would be an alternative. For those who have even worse situations, they may still be capable of some teaching jobs or being others' mentors," commented Dr Lam. In the medical field, especially in public organisations, doctors normally retire at 60 years old. The retired doctors are, at the same time, the most experienced and knowledgeable professionals in the medical field. Under this circumstance, if the doctors did not retire, it is commonly believed that the promotion of those in junior level may be obstructed.

Dr LAM thought that the situation could be adjusted. "The Hospital Authority has a good practice regarding retired doctors. Upon retirement, these doctors no longer work in the management level, but they can still work as clinical doctors. In this case, they would not obstruct the promotion of the junior doctors," he said. On the other hand, more part-time employment should be made available so that the retirees can adjust their working schedules according to their own physical conditions and living habit. In the other fields, the experienced staff can gradually change their roles to consultants or mentors. They can be responsible for more training jobs to train the juniors or to be responsible for some task-based jobs. The retirement policy nowadays is self-contradictory in the way that there are not enough doctors in the society on one hand. But on the other hand, the doctors who reach 60 years old are required to retire. Similar situations happen to nurses, other medical professionals as well as those in the management level. Therefore, more flexibility should be introduced into the retirement policies of the public organisations.

Lifelong learning

Q. : Do you think retirees should change their job fields and interests after retirement?

It is crucial for the elderly to equip themselves with other skills and knowledge by offering them further training. In this way, they can have more opportunities to change their job fields as well as start their own businesses. The government has provided some positive responses towards this issue, for example, the age limit of the Continuing Education Fund (CEF) has increased to 70 years old. In addition to the increase in age limit, the amount of CEF also increases from HKD 10,000 to HKD 20,000 for each person. "The mindset in the entire society should be changed. Why should we use the

age to limit people?" said Dr LAM. The pay structure should also be changed. Currently, there is no grey area between full time jobs and volunteers. For those elderly people who do not prefer full-time jobs, being volunteers may not be good choices for them as well because they can earn no income. Employment with half or one-third of payment is worth considering for the elderly.

The Elderly Commission has been jointly organising a school-based Elder Academy Scheme since 2007. Currently, there are 130 Elder Academies, offering various degree courses in some local universities as well as free courses in existing Primary and Secondary schools. The Elder Academy is similar to the third-age universities in overseas, but it has been running in a different mode in Hong Kong. Due to limited land in Hong Kong, it is hard to find space to build schools especially for the elderly. The Elder Academy Scheme provides places for the elderly to study and learn skills such as computer skills. The Elder Academy scheme also aims at encouraging the harmony between elderly and youths. With a non-governmental organisation as a bridge between the elderly and the schools, young students and the elderly can both benefit from the scheme as they are able to teach and learn from each other.

Living well

Q. : What is your view towards senior housing?

Regarding the housing policies, there is much discussion on the two housing type choices—one with the elderly and the young live together and another with all the elderly live together. In fact, some of the elderly do not prefer living with the other elderly while some enjoy the accompaniment of their peers of the same age. Thus, the government should formulate policies which facilitate the diversities. As a result, different types of housing can be arranged to suit different needs of the elderly people, just like different types of employment can be provided for different kinds of retirees.

The housing problem has been the one of the most pressing problems in Hong Kong and the elderly have been facing the same problem. For some well-to-do elderly, they do not own a house to stay since they may have given their houses to their children. Yet, for other elderly people, the houses are no longer suitable for them to live in. "We need to consider elderly people of different society levels. There are "retirement villages" in foreign countries for those wealthier elderly. This type of housing is known as senior housing in Hong Kong and a large proportion of senior housing has been sold out," said Dr LAM. It is suggested that the market should encourage more developers into the market. In fact, more and more developers in Hong Kong have shown interests of investing in the senior housing market. The reward rate may not be as high as direct house purchasing, but buying senior housing is actually beneficial to the cash flow and the recurring income. Senior housing for wealthier elderly has much potential to develop. For the elderly with middle-income, there are also different kinds of senior housing for them. Currently, there are a lot of government policies to help these middle-level elderly, such as waiving the payment of the premium to lower the prices of these houses for seniors.

"The elderly people from grassroots are the most worrying among all. In recent years, we keep on addressing the housing problem among the youngsters. But in fact, this is a false proposition. While the youngsters still have places to stay in, the true housing problem is among the elderly. Currently, there are 27,000 elderly living in subsidised residential care places. However, there are only 7,000 elderly who pass the assessment. The remaining 20,000 elderly may be misplaced or they only have housing needs. This reflects a phenomenon that some elderly people who have high self-care ability are making use of the mechanism to solve their own housing needs. As a result, some elderly, who do not have urgent health care needs, move into the residential care places and occupy the spaces of those who are really in need. The problem can actually be solved using the housing policies," said Dr LAM. It is suggested that "Elderly Hostels" should be rebuilt. The three remaining hostels are located on one floor in different public housing estates. The lift lobbies and corridors have been transformed into common area. Three or four elderly can live inside a flat without any partition. The Housing Authority paused building the elderly hostels because of the repeated incidents of fights among the elderly who live together under one rooftop. The management is the main problem for these hostels. Nowadays, some non-governmental organisations act as the agency in the existing hostels. Most of the elderly there co-manage the hostels together by forming committees. There will be a large room to rebuild these kinds of elderly hostels since not a lot of resources are needed, at the same time, the space could be utilised more efficiently.

Sustaining finance

Q. : What is your opinion towards annuity?

Regarding the annuity, it is a similar concept as reverse mortgage. For the elderly people who have rich asset but poor income, the annuity scheme may help transform their asset into regular income. Purchasers will only have to pay a lump sum in exchange for a stable flow of monthly income. It is beneficial as it activates the whole Silver-hair market and the elderly people are more willing to spend money. For the Life Annuity Scheme run by the government, the elderly can get back about HKD 5,000 when they invest 1 million into the scheme. The result of a consultation shows that the scheme is greatly welcomed by the elderly. According to the 2018-19 Budget, the elderly who reach 65 years old can buy the recognised Annuity Scheme reviewed by the government. In return, the government will waive the tax for them which aims at encouraging people to buy the annuity products in private markets.

Caregivers supply

Q. : What are the alternatives in taking care of the elderly in Hong Kong?

As the city with the longest life expectancy, the manpower of caregivers is in high demand in Hong Kong. In respect to other alternative methods of taking care of the elderly, Dr LAM suggested that the government could consider importing foreign workers to Hong Kong. For example, it is suggested that hiring nurses from the Philippines to be personal

caregivers may be one of the choices. In other countries, the same approach is being practised. "To enhance manpower, we may attract youngsters or women to enter the industry. In addition, we should make better use of technology," said Dr LAM. The government has already added two salary points for the frontline staff in subsidised residential care places and the median of their salary reaches HKD 20,000. Despite the increase in salary among the frontline staff, it is quite difficult to recruit people to enter the industry. This is due to the fact that the current unemployment rate is only 2.9% which means that the labour market remains in a state of full employment. Another solution is to teach the young-old some skills so that they are able to take care of the old-old. Furthermore, the quality of the caretakers is also one of the important factors to be considered. For the elderly people who prefer having residential care at home, more qualified medical professionals are required to take care of them. Some non-governmental organisations are offering some training programmes such as courses and public talks for domestic workers to refine the skills of taking care of the elderly.

Integrating with Greater Bay Area

Q. : What is your opinion towards the retirement lives at the Greater Bay Area?

Regarding the retirement lives at the Greater Bay Area, Dr LAM thinks that the implementation is feasible. As the Guangdong Scheme is still running, more than 10,000 Hong Kong people who are currently living in Guangdong receive the Old Age Living Allowance from Hong Kong every month. Dr LAM thought that retiring in the Mainland China is attractive due to the relatively larger living space and much lower living index there. In the aspect of health care, the medical providers in which Hong Kong people are confident in should be used in that area. For example, in the Shenzhen Hospital, although the medical professionals are hired from the Mainland China, Hong Kong people may prefer hospitals with a Hong Kong-style management system. When there are some more hospitals like the Shenzhen Hospital, it is easier to develop some small communities for the elderly to live in. The government is also willing to facilitate the development of these communities. Because of rich capitals in the Mainland China, in the long run, it is possible to develop small communities in nearby cities in the Guangdong Province, such as Zhongshan, with comprehensive elderly care and medical facilities managed by Hong Kong people, especially for the elderly from Hong Kong.

After retirement, it is crucial for retirees to continue making contribution to society and keep searching for the purposes and meanings of their lives. At the societal level, there should be a wider range of diversities in terms of employment and housing whereas the financial sustainability and health care services for the retirees should be taken care of. With the concerted efforts from different parties in the society, a retirement life can be carefully and thoroughly planned to ensure a colourful and enjoyable stage of life.

Expressive Art Therapy 2017

The FMSHK Foundation sponsored two series of Expressive Arts Therapy (ExAT) workshops in 2017. They were run by Ms Snowy Lam, who is an expressive arts therapist. These workshops provided an invaluable opportunity for children and their parents or guardians to experience art-based intervention. They aimed to help children to confront adversity, such as bereavement, and the consequent emotional problems such as anxiety and social withdrawal. Over six sessions, they specifically focused on improving emotional management, interpersonal skills and resilience. This was achieved through making art together in a group under the guidance of an expressive arts therapist.

The use of art in psychotherapy is a burgeoning area of interest. Art activities provide an alternative way for children to express deeply buried emotions, and help them to experience and reconfirm the feeling of being loved and cared for, in an emotionally-safe and non-judgmental environment. During the art-making process, the children learnt to share materials and ideas, accept differences among themselves, express their thoughts and feelings, and interact with others. They were encouraged to connect and express their feelings and thoughts through their created artworks. This process allowed them to resolve psychological issues at their own pace. It offered a nonverbal symbolic pathway to develop and manage behaviour, and improve overall psychological wellbeing by reducing stress and enhancing self-esteem and self-awareness. Feedback to this programme was positive, citing improved parent-child relationship, better adjustment to stress, and adoption of art as a way of expressing emotions.

Certificate Course for Medical and Healthcare Professionals

- Course No. C320
- CME/CNE Course

Certificate Course on

Renal Medicine 2018

Jointly organised by

The Federation of Medical Societies of Hong Kong

Hong Kong Society of Nephrology

Objectives:

To update the participants on new advances in renal medicine and clinical practice of common renal problems, and to help the participants to interpret results of common renal investigations.

Date	Topics	Speakers
5 Sep	Common Investigation Tests for Renal Disease Including Approach to Proteinuria & Haematuria	Dr Sze-kit YUEN Associate Consultant Department of Medicine & Geriatrics Caritas Medical Centre
	Update & Management of Glomerular Disease	Dr Elaine Tsz-ling HO Associate Consultant Department of Medicine Tsueng Kwan O Hospital
12 Sep	Update & Management of Acute Kidney Injury	Dr Chun-hay TAM Associate Consultant Department of Medicine & Geriatrics United Christian Hospital
	Nutritional Management in Kidney Diseases	Ms Cherry LAW Dietitian Pamela Youde Nethersole Eastern Hospital
19 Sep	Update & Management of Hypertension	Dr Wai-yan LAU Associate Consultant Department of Medicine Alice Ho Miu Ling Nethersole Hospital
	Drug Prescribing in Renal Failure	Dr Anthony Kai-ching HAU Associate Consultant Department of Medicine & Geriatrics Tuen Mun Hospital
26 Sep	Kidney Involvement in Multi-System Disorders	Dr Desmond Yat-hin YAP Clinical Assistant Professor Department of Medicine, Queen Mary Hospital Hong Kong University
	ABC of Hemodialysis Therapy	Dr Gensy Mei-wah TONG Consultant in Nephrology Renal Centre Hong Kong Baptist Hospital
3 Oct	ABC of Peritoneal Dialysis Therapy	Dr Joseph Ho-sing WONG Associate Consultant Department of Medicine Queen Elizabeth Hospital
	Update on Diabetic Nephropathy	Dr Maggie Ma Associate Consultant Department of Medicine Queen Mary Hospital
10 Oct	Update & Management of Chronic Kidney Disease	Dr Wing-fai PANG Associate Consultant Department of Medicine & Therapeutics Prince of Wales Hospital
	ABC of Renal Transplantation	Dr Ka-fai YIM Associate Consultant Department of Medicine & Geriatrics Princess Margaret Hospital

Dates : 5, 12, 19, 26 September 2018 & 3, 10 October, 2018 (Every Wednesday)
Time : 7:00 pm – 8:30 pm
Venue : Lecture Hall, 4/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong
Language Media : Cantonese (Supplemented with English)
Course Fee : HK$750 (6 sessions)
Certificate : Awarded to participants with a minimum attendance of 70%
Enquiry : The Secretariat of The Federation of Medical Societies of Hong Kong
Tel: 2527 8898 Fax: 2865 0345 Email: info@fmshk.org

CME / CNE Accreditation in application
Application form can be downloaded from website: http://www.fmshk.org

Spring Dinner 2018

The spring dinner of the Federation was held on 13 March 2018. The President, Officers, Executive Committee members, Foundation Directors and the Secretariat colleagues gathered to celebrate the Chinese New Year in 2018. The President, Dr. Mario CHAK first welcomed the new Executive Committee members and colleagues to join the Federation's big family. Furthermore, Dr. CHAK expressed his utmost appreciation and gratitude to Dr Chun-on MOK for his remarkable contribution to the Medical Diary as the Editor-in-Chief. Dr. Chak also highlighted new plans for the Federation ahead and was confident in achieving those goals with the continuing support of the Executive Committee. The night was full of happiness and enjoyment. All of us at the Federation wish our readers a prosperous Year of the Dog!



Certificate Course for doctors, nurses, and health care providers • CME/CNE Course • Course No. C324

Certificate Course on

Disease in Otorhinolaryngology, Head & Neck Surgery (ENT)

Jointly organised by

The Federation of Medical Societies of Hong Kong

Hong Kong Society of Otorhinolaryngology, Head & Neck Surgery

Date	Topics	Speakers
24 Oct	Diagnosis and surgical management of common facial lesions	Dr. FUNG Tai Hang, Thomas Consultant Department of Ear, Nose & Throat Pamela Youde Nethersole Eastern Hospital
31 Oct	Management of obstructive sleep apnea syndrome - a surgeon's perspective	Dr. CHAN Kin Ming Specialist in Otorhinolaryngology Private Practice
7 Nov	Endoscopic management of sinonasal diseases	Dr. LEE Chi Wai Specialist in Otorhinolaryngology Private Practice
14 Nov	Liquid Biopsy – its role in NPC screening	Dr. LAM Wai Kei Clinical lecturer Department of otorhinolaryngology, head and neck surgery The Chinese University of Hong Kong
21 Nov	How to approach a vertigo patient	Dr. WONG Ka Fai Associate Consultant Department of Ear, Nose & Throat Queen Mary Hospital
28 Nov	Minimal invasive surgery in head and neck disease	Dr. CHUNG Chun Kit, Joseph Associate Consultant Department of Ear, Nose & Throat Queen Mary Hospital

Date : 24, 31 October 2018 & 7, 14, 21, 28 November, 2018 (Every Wednesday)
Time : 7:00 pm – 8:30 pm
Venue : Lecture Hall, 4/F., Duke of Windsor Social Service Building,15 Hennessy Road, Wanchai, Hong Kong
Course Fee : HK$750 (6 sessions)
Enquiry : The Secretariat of The Federation of Medical Societies of Hong Kong
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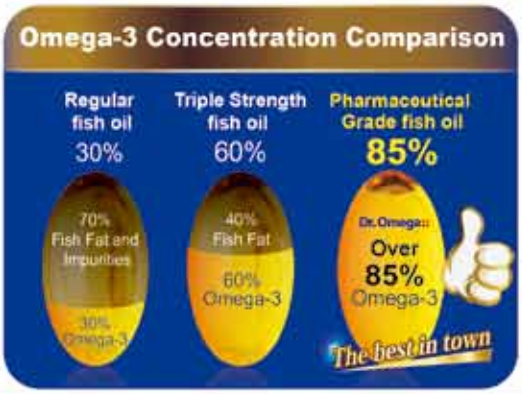

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	★HKMA Council Meeting 3	4	★HKMA New Territories West Community Network - PPI- Guidelines and Controversies ★UCH x FM x HKMA KE CN – Certificate Course for GPs 2018 - Update on Injectable Diabetes Mellitus Treatment 5	6	7
8	9	★HKMA Kowloon West Community Network - Novel Combination of Basal Insulin and GLP1 ★FMSHK Officers' Meeting 10	★HKMA Central, Western & Southern Community Network - Diabetes Management in Elderly Patients ★The Hong Kong Neurosurgical Society Monthly Academic Meeting –Do Not Go Gentle Into That Goodnight: The Era of the Neurosurgical Oncologist: Tumor Treating Fields and Interstitial Therapy for Glioblastoma 11	★HKMA Kowloon East Community Network - Conservative Treatment of OA Knee & Surgical Treatment of OA Knee ★HKMA – HKS&H CME Programme 2017-2018 –"Update in Medical Practice' 12	★HKMA Kowloon City Community Network - Atrial Fibrillation Management in Asian Population 13	14
15	16	★HKMA Annual General Meeting 17	18	★HKMA New Territories West Community Network - Redefining the Role of DAPT in MI Management - For Who and For How Long? ★FMSHK Executive Committee Meeting 19	★HKMA Shatin Doctors Network – Novel Diabetic Medications in NonEstablished Cardiovascular Diseases Patient 20	21
★Charity Concert for Life Warriors on Wheels 22	23	24	★HKMA Central, Western & Southern Community Network - Hyaluronic Acid in Osteoarthritis Management - Current Status 25	★FMSHK Foundation Meeting 26	★HKMA Yau Tsim Mong Community Network - The Latest Update in Hypertension Guideline 27	28
29	30	31				

Date / Time	Function	Enquiry / Remarks
3 TUE 9:00 PM	**HKMA Council Meeting** Organiser: The Hong Kong Medical Association; Chairman: Dr. CHOI Kin; Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, HK	Ms. Christine WONG Tel: 2527 8285
5 THU 1:00 PM	**HKMA New Territories West Community Network - PPI- Guidelines and Controversies** Organiser: HKMA New Territories West Community Network; Chairman: Dr. CHEUNG Kwok Wai, Alvin; Speaker: Dr. LI Wing Heng, Simon; Venue: Pak Loh Chiu Chow Restaurant, Shop A316, 3/F, Yoho Mall II, 8 Long Yat Road, Yuen Long	Mr. Ian YAU Tel: 2527 8285 1 CME Point
1:00 PM	**UCH x FM x HKMA KE CN – Certificate Course for GPs 2018 - Update on Injectable Diabetes Mellitus Treatment** Organiser: HKMA New Territories West Community Organiser: United Christian Hospital, Hong Kong College of Family Physians & HKMA Kowloon East Community Network; Speaker: Dr. TSANG Man Wo; Venue: Conference Room, G/F, Block K, United Christian Hospital	Ms. Polly TAI; Ms. Cordy WONG (UCH) Tel: 3949 3430 Tel: 3949 3087 1 CME Point
10 TUE 1:00 PM	**HKMA Kowloon West Community Network - Novel Combination of Basal Insulin and GLP1** Organiser: HKMA Kowloon West Community Network; Chairman: Dr. TONG Kai Sing; Speaker: Dr. CHAN Wing Bun; Venue: Fulum Palace, Shop C, G/F, 85 Broadway Street, Mei Foo Sun Chun, Mei Foo	Mr. Ian YAU Tel: 2527 8285 1 CME Point
8:00 PM	**FMSHK Officers' Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Gallop, 2/F, Hong Kong Jockey Club Club House, Shan Kwong Road, Happy Valley, Hong Kong	Ms. Nancy CHAN Tel: 2527 8898
11 WED 7:30 AM	**The Hong Kong Neurosurgical Society Monthly Academic Meeting –Do Not Go Gentle Into That Goodnight: The Era of the Neurosurgical Oncologist: Tumor Treating Fields and Interstitial Therapy for Glioblastoma** Organizer: Hong Kong Neurosurgical Society; Chairman: Dr WOO Yat Ming, Peter; Speaker(s): Dr HO Wan Nok, William; Venue : Seminar Room, G/F, Block A, Queen Elizabeth Hospital	CME Accreditation: 1.5 points College: College of Surgeons of Hong Kong Enquiry : Dr. WONG Sui To Tel: 2595 6456 Fax. No.: 2965 4061
1:00 PM	**HKMA Central, Western & Southern Community Network - Diabetes Management in Elderly Patients** Organiser: HKMA Central, Western & Southern Community Network; Chairman: Dr. YIK Ping Yin; Speaker: Dr. TONG Chun Yip, Peter; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	Mr. Ian YAU Tel: 2527 8285 1 CME Point
12 THU 1:00 PM	**HKMA Kowloon East Community Network - Conservative Treatment of OA Knee & Surgical Treatment of OA Knee** Organiser: HKMA KLN East Community Network; Chairman: Dr. AU Ka Kui, Gary; Speaker: Dr. LAU Yan Kit & Dr. HO Hon Shuen; Venue: Lei Garden Restaurant, Shop No. L5-8, apm, Kwun Tong, No. 418 Kwun Tong Road, Kowloon	Mr. Ian YAU Tel: 2527 8285 1 CME Point
1:00 PM	**HKMA – HKS&H CME Programme 2017-2018 –"Update in Medical Practice"** Organiser: The Hong Kong Medical Association & Hong Kong Sanatorium & Hospital; Chairman: Dr. David VK CHAO; Speaker: Dr. KWAN Kin Hung, Vincent; Venue: Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central	HKMA CME Dept. Tel: 2527 8285 1 CME Point
13 FRI 1:00 PM	**HKMA Kowloon City Community Network - Atrial Fibrillation Management in Asian Population** Organiser: HKMA Kowloon City Community Network; Chairman: Dr. CHIN Chu Wah; Speaker: Dr. CHAN Wai Kwong; Venue: President's Room, Spotlight Recreation Club, 4/F., Screen World, Site 8, Whampoa Garden, Hunghom, Kowloon	Ms. Candice TONG Tel: 2527 8285 1 CME Point
17 TUE 9:00 PM	**HKMA Annual General Meeting** Organiser: The Hong Kong Medical Association; Chairman: Dr. LAM Tzit Yuen, David; Venue: Crystal Ballroom, 2/F, The Cityview Hong Kong, 23 Waterloo Road, Kowloon	Ms. Christine WONG Tel: 2527 8285
19 THU 1:00 PM	**HKMA New Territories West Community Network - Redefining the Role of DAPT in MI Management - For Who and For How Long?** Organiser: HKMA New Territories West Community Network; Chairman: Dr. CHEUNG Kwok Wai, Alvin; Speaker: Dr. YAN Chun Ting, Fergus; Venue: Atrium Function Rooms, Lobby Floor, Hong Kong Gold Coast Hotel, 1 Castle Peak Road, Gold Coast, Hong Kong	Mr. Ian YAU Tel: 2527 8285 1 CME Point
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
20 FRI 1:00 PM	**HKMA Shatin Doctors Network – Novel Diabetic Medications in NonEstablished Cardiovascular Diseases Patient** Organiser: HKMA Shatin Doctors Network; Chairman: Dr. MAK Wing Kin; Speaker: Dr. WU, Enoch; Venue: Diamond Room, 2/F, Royal Park Hotel, 8 Pak Hok Ting Street, Shatin	Ms. Candice TONG Tel: 2527 8285 1 CME Point
22 SUN 8:00 PM	**Charity Concert for Life Warriors on Wheels** Organiser: The Hong Kong Medical Association Charitable Foundation; Chairman: Dr. LAM Tzit Yuen, David; Venue: Auditorium, Tsuen Wan Town Hall, 72 Tai Ho Rd., Tsuen Wan	Miss Sandy WONG Tel: 2527 8285
25 WED 1:00 PM	**HKMA Central, Western & Southern Community Network - Hyaluronic Acid in Osteoarthritis Management - Current Status** Organiser: HKMA Central, Western & Southern Community Network; Chairman: Dr. YIK Ping Yin; Speaker: Dr. YIM Wing Ngai, Acmond; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	Mr. Ian YAU Tel: 2527 8285 1 CME Point

Date / Time	Function	Enquiry / Remarks
26 THU 8:00 PM	**FMSHK Foundation Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Council Chamber, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, HK	Ms. Nancy CHAN Tel: 2527 8898
27 FRI 1:00 PM	**HKMA Yau Tsim Mong Community Network - The Latest Update in Hypertension Guideline** Organiser: HKMA Yau Tsim Mong Community Network; Chairman: Dr. HO Kit Man, Carmen; Speaker: Dr. Thomas Prabowo TUNGGAL; Venue: Crystal Ballroom, 2/F, The Cityview Hong Kong, 23 Waterloo Road, Kowloon	Ms. Candice TONG Tel: 2527 8285 1 CME Point

Upcoming Event

1 Sept 2018 14:00-22:00PM	**Annual Conference 2018 – Creativity for Care (創意醫療 關顧無價)** Organiser: Hong Kong College of Health Service Executives; Chairman: Dr LIU Shao-haei, President & Ms Macky TUNG, Chairlady; Speaker(s): Dr Neale FONG & Mr Bernard Charnwut CHAN GBS, JP; Venue: Cordis Hotel Hong Kong, Mongkok	Ms Rachel YAU T: 2527 8898 Email: rachel.yau@fmshk.org
29-30 Sept 2018	**The 10th Hong Kong Allergy Convention – Personalised Medicine in Allergy** Organiser: Hong Kong Institute of Allergy; Chairman: Dr Marco HO; Venue: Hong Kong Convention and Exhibition Centre	HKAC 2018 Secretariat T: 2559 9973 F: 2547 9528 CME Point: To be applied

Certificate Course For Nurses And Allied Health Professionals • **CME/CNE Course** • **Course No. C319**

Certificate Course on
Respiratory Medicine 2018

Jointly organised by

The Federation of Medical Societies of Hong Kong
香港醫學組織聯會

Hong Kong Thoracic Society
香港胸肺學會

CHEST

Date	Topics	Speakers
6 Sep	Non-invasive Ventilation and Troubleshooting	Dr Kah-lin CHOO Consultant (MED), NDH
13 Sep	Lung Malignancy from the Medical Oncologist's Perspective	Dr Yim-kwan LAM Consultant (M&G), UCH
20 Sep	Updates on the Management of Pulmonary Infections	Dr Man-po LEE Consultant (MED), QEH
27 Sep	Interventional Pulmonology	Dr Jones KWOK AC (M&G), PMH
4 Oct	Diagnostic Investigations & Pharmacotherapy for Chronic Airway Disease	Dr Maureen WONG COS(MG/ICU), CMC
11 Oct	Alternative Therapy for Dyspnoea	Dr David YU SPT(PHYSIO), QEH

Date : 6, 13, 20, 27 September, 2018 & 4, 11, October 2018 (Every Thursday)
Time : 7:00 p.m. – 8:30 p.m.
Venue : Lecture Hall, 4/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong
Course Fee : HK$750 (6 sessions)
Enquiry : The Secretariat of The Federation of Medical Societies of Hong Kong
Tel.: 2527 8898 Fax: 2865 0345 Email: info@fmshk.org

Application form can be downloaded from website: http://www.fmshk.org

Answers to Dermatology Quiz

Answer:

1. Campbell de Morgan spot
   The diagnosis is Campbell de Morgan spot, also called cherry haemangioma or senile angioma. The differential diagnoses include pyogenic granuloma, Kaposai's sarcoma, bacillary angiomatosis, blue rubber bleb naevus and angiokeratoma.

2. Cherry haemangioma is a common, benign cutaneous vascular proliferation of dilated venules in the thickened papillary dermis. The frequency increases with age. It is often widespread in all parts of the body and begins with small cherry red macules or papules and gradually grows very slowly to dome-shaped papules with a cherry red and sometimes dark purple colour.

3. Cherry haemangioma requires no treatment because of its harmless and benign nature. The management is mainly conservative and cosmetic. Treatment like shave excision, curettage and electrodesiccation, pulsed dye laser and cryotherapy may be considered only if the lesion causes irritation, haemorrhage or for instances in which the lesions are deemed to be cosmetically undesirable by the patient. However, all these measures may result with a scar or even keloid afterwards.

Dr Chi-keung KWAN
MBBS(HK), FRCP(Glasg), FHKCP, FHKAM(Med)
Specialist in Dermatology and Venereology

Betmiga®
mirabegron

THE 1ST β_3-AGONIST FOR OAB* PATIENTS
WITH PROMISING SAFETY PROFILE
PLACEBO-LIKE DRY MOUTH(1.7%) SIDE EFFECT[1]

Harnal OCAS®
tamsulosin

YOUR 1ST STEP FOR MALE LUTS+ PATIENTS
WITH PROMISING SAFETY PROFILE#
PLACEBO-LIKE DIZZINESS(1.4%) SIDE EFFECT[2]

A *FRESH* STEP IN LUTS+ MANAGEMENT

*OAB: Overactive Bladder + LUTS: Lower Urinary Tract Symptoms
α_1-blockers are often considered the first line drug treatment of male LUTS[3]

Reference: **1.** Chapple C.R. et al. Neurourol Urodynam 2013 [doi 10.1002/nau22505] **2.** Chapple C.R. et al. Eur Urol Supp. 2005; 4:33-44
3. Gravas S, et al. EAU Guidelines on the Treatment of Non-neurogenic Male LUTS. European Association of Urology. 2017.

Abbreviated prescribing information of Harnal OCAS® 0.4 mg Tablets
Version: 002 PI version: Sep 2013. **Composition:** Tamsulosin HCl **Indication:** Lower urinary tract symptoms (LUTS) associated with benign prostatic hyperplasia (BPH). **Dosage:** 1 tab daily, can be taken independently of food. **Administration:** Swallow whole, do not chew/crunch. **Contraindications:** Hypersensitivity to tamsulosin hydrochloride or to any of the excipients. **Special warnings and special precaution for use:** As with other α1-adrenoceptor antagonists, a reduction in blood pressure can occur in individual cases during treatment with Harnal OCAS® 0.4 mg Tablets, as a result of which, rarely, syncope can occur. At the first signs of orthostatic hypotension (dizziness, weakness), the patient should sit or lie down until the symptoms have disappeared. Before therapy with Harnal OCAS® 0.4 mg Tablets is initiated, the patient should be examined in order to exclude the presence of other conditions, which can cause the same symptoms as benign prostatic hyperplasia. Digital rectal examination and, when necessary, determination of prostate specific antigen (PSA) should be performed before treatment and at regular intervals afterwards. Treatment of patients with a history of orthostatic hypotension should be approached with caution. The treatment of patients with severe renal impairment (creatinine clearance of <10 ml/min) should be approached with caution, as these patients have not been studied. The treatment of patients with severe hepatic dysfunction should be approached with caution. The 'Intraoperative Floppy Iris Syndrome' (IFIS, a variant of small pupil syndrome) has been observed during cataract and glaucoma surgery in some patients on or previously treated with tamsulosin hydrochloride. IFIS may increase the risk of eye complications during and after the operation. Discontinuing tamsulosin hydrochloride 1-2 weeks prior to cataract or glaucoma surgery is anecdotally considered helpful, but the benefit of treatment discontinuation has not been established. IFIS has also been reported in patients who had discontinued tamsulosin for a longer period prior to the surgery. The initiation of therapy with tamsulosin hydrochloride in patients for whom cataract or glaucoma surgery is scheduled is not recommended. During pre-operative assessment, surgeons and ophthalmic teams should consider whether patients scheduled for cataract or glaucoma surgery are being or have been treated with tamsulosin in order to ensure that appropriate measures will be in place to manage the IFIS during surgery. Tamsulosin hydrochloride should not be given in combination with strong inhibitors of CYP3A4 in patients with poor metaboliser CYP2D6 phenotype. Tamsulosin hydrochloride should be used with caution in combination with strong and moderate inhibitors of CYP3A4. Cases of allergic reaction to tamsulosin in patients with a past history of sulfonamide allergy have been reported. If a patient reports a previously experienced sulfa allergy, caution is warranted when administrating tamsulosin hydrochloride. **Undesirable effects:** *Common (>1%, <10%), Uncommon (>0.1%, <1%), Rare (>0.01%, <0.1%), Very rare (<0.01%). Cardiac disorder: Uncommon:* Palpitations. *Gastrointestinal disorders: Uncommon:* Constipation, diarrhoea, nausea, vomiting. *General disorders and administration site conditions: Uncommon:* Asthenia. *Nervous systems disorders: Common:* Dizziness (1.3%). *Uncommon:* Headache. *Rare: Syncope. Reproductive system and breast disorders: Common:* Ejaculation disorders. *Very rare:* Priapism. *Respiratory, thoracic and mediastinal disorders: Uncommon:* Rhinitis. *Skin and subcutaneous tissue disorders: Uncommon:* Rash, pruritus, urticaria. *Rare:* Angioedema. *Vascular disorders: Uncommon:* Orthostatic hypotension. ***Post-marketing experience:*** The following events have also been reported during the post-marketing period. These events are reported voluntarily from a population of uncertain size, therefore it is not possible to reliably estimate their frequency: visual disorders (e.g. blurred vision, visual impairment), dermatitis exfoliative, erythema multiforme and epistaxis. During cataract and glaucoma surgery a small pupil situation, known as Intraoperative Floppy Iris Syndrome (IFIS), has been reported. **Full prescribing information is available upon request.**

Abbreviated prescribing information of Betmiga® prolonged-release tablets
Version: 003 PI version: Apr 2016. **Composition:** Mirabegron **Indication:** Symptomatic treatment of urgency, increased micturition frequency and/or urgency incontinence as may occur in adult patients with overactive bladder (OAB) syndrome. **Dosage:** Adult including elderly 50 mg once daily with or without food. **Administration:** Swallow whole with liquids. Do not chew/divide/crush. **Contraindications:** Mirabegron is contraindicated in patients with - Hypersensitivity to the active substance or to any of the excipients. - Severe uncontrolled hypertension defined as systolic blood pressure ≥ 180 mm Hg and/or diastolic blood pressure ≥ 110 mm Hg. **Special warnings and precautions for use:** Renal impairment: Betmiga has not been studied in patients with end stage renal disease (GFR < 15 mL/min/1.73 m2 or patients requiring haemodialysis) and, therefore, it is not recommended for use in this patient population. Data are limited in patients with severe renal impairment (GFR 15 to 29 mL/min/1.73 m2); based on a pharmacokinetic study a dose reduction to 25 mg is recommended in this population. Betmiga is not recommended for use in patients with severe renal impairment (GFR 15 to 29 mL/min/1.73 m2) concomitantly receiving strong CYP3A inhibitors. Hepatic impairment: Betmiga has not been studied in patients with severe hepatic impairment (Child-Pugh Class C) and, therefore, it is not recommended for use in this patient population. Betmiga is not recommended for use in patients with moderate hepatic impairment (Child-Pugh B) concomitantly receiving strong CYP3A inhibitors. Hypertension: Mirabegron can increase blood pressure. Blood pressure should be measured at baseline and periodically during treatment with Betmiga, especially in hypertensive patients. Data are limited in patients with stage 2 hypertension (systolic blood pressure ≥ 160 mm Hg or diastolic blood pressure ≥ 100 mm Hg). Patients with congenital or acquired QT prolongation: Betmiga, at therapeutic doses, has not demonstrated clinically relevant QT prolongation in clinical studies. However, since patients with a known history of QT prolongation or patients who are taking medicinal products known to prolong the QT interval were not included in these studies, the effects of mirabegron in these patients is unknown. Caution should be exercised when administering mirabegron in these patients. Patients with bladder outlet obstruction and patients taking antimuscarinics medications for OAB: Urinary retention in patients with bladder outlet obstruction (BOO) and in patients taking antimuscarinic medications for the treatment of OAB has been reported in postmarketing experience in patients taking mirabegron. A controlled clinical safety study in patients with BOO did not demonstrate increased urinary retention in patients treated with Betmiga; however, Betmiga should be administered with caution to patients with clinically significant BOO. Betmiga should also be administered with caution to patients taking antimuscarinic medications for the treatment of OAB. **Undesirable effects:** Summary of the safety profile: The safety of Betmiga was evaluated in 8,433 patients with OAB, of which 5,648 received at least one dose of mirabegron in the phase 2/3 clinical program, and 622 patients received Betmiga for at least 1 year (365 days). In the three 12-week phase 3 double blind, placebo controlled studies, 88% of the patients completed treatment with Betmiga, and 4% of the patients discontinued due to adverse events. Most adverse reactions were mild to moderate in severity. The most common adverse reactions reported for patients treated with Betmiga 50 mg during the three 12-week phase 3 double blind, placebo controlled studies are tachycardia and urinary tract infections. The frequency of tachycardia was 1.2% in patients receiving Betmiga 50 mg. Tachycardia led to discontinuation in 0.1% patients receiving Betmiga 50 mg. The frequency of urinary tract infections was 2.9% in patients receiving Betmiga 50 mg. Urinary tract infections led to discontinuation in none of the patients receiving Betmiga 50 mg. Serious adverse reactions included atrial fibrillation (0.2%). Adverse reactions observed during the 1-year (long term) active controlled (muscarinic antagonist) study were similar in type and severity to those observed in the three 12-week phase 3 double blind, placebo controlled studies. List of adverse reactions: The table below reflects the adverse reactions observed with mirabegron in the three 12-week phase 3 double blind, placebo controlled studies. The frequency of adverse reactions is defined as follows: very common (≥1/10); common (≥1/100 to <1/10); uncommon (≥1/1,000 to <1/100); rare (≥1/10,000 to <1/1,000); very rare (<1/10,000). Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness. Infections and infestations: Common: Urinary tract infection. Uncommon: Vaginal infection, Cystitis. Psychiatric disorders: Not known (cannot be estimated from the available data): Insomnia*. Eye disorders: Rare: Eyelid oedema. Cardiac disorders: Common: Tachycardia. Uncommon: Palpitation, Atrial fibrillation. Vascular disorders: Very rare: Hypertensive crisis*. Gastrointestinal disorders: Common: Nausea*, Constipation*, Diarrhoea*. Uncommon: Dyspepsia, Gastritis. Rare: Lip oedema. Skin and subcutaneous tissue disorders: Uncommon: Urticaria, Rash, Rash macular, Rash popular, Pruritus. Rare: Leukocytoclastic vasculitis, Purpura, Angioedema*. Musculoskeletal and connective tissue disorders: Uncommon: Joint swelling. Reproductive system and breast disorders: Uncommon: Vulvovaginal pruritus. Investigations: Uncommon: Blood pressure increased, GGT increased, AST increased, ALT increased. Renal and urinary disorders: Rare: Urinary retention*. Nervous system disorders: Common: Headache*, Dizziness*. *observed during post-marketing experience. **Full prescribing information is available upon request.**

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FOR HER, THERE'S NO SUCH THING AS A SMALL FALL

Patients with osteoporosis face the danger of its consequences. With Prolia®, the risk of fracture at the hip and other key sites was reduced significantly vs. placebo at 3 years (P<0.05).[1] And because the 6-monthly subcutaneous injection[2] is well tolerated,[1] you can help protect them.

For the treatment of osteoporosis in postmenopausal women and in men at increased risk of fractures. In postmenopausal women, Prolia® significantly reduces the risk of vertebral, non-vertebral and hip fractures.[3]

Prolia® (Denosumab) Abbreviated Prescribing Information

Prolia® (denosumab) Solution for Injection in Pre-filled Syringe 60 mg/mL **INDICATIONS** Prolia is indicated for: i) treatment of postmenopausal women with osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other available osteoporosis therapy; ii) treatment to increase bone mass in men with osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other available osteoporosis therapy; iii) treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for nonmetastatic prostate cancer. In these patients Prolia also reduced the incidence of vertebral fractures; iv) treatment to increase bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer. **DOSAGE AND ADMINISTRATION** The recommended dose of Prolia is 60 mg administered as a single subcutaneous injection once every 6 months. Administer Prolia via subcutaneous injection in the upper arm, the upper thigh, or the abdomen. All patients should receive calcium 1000 mg daily and at least 400 IU vitamin D daily. **CONTRAINDICATIONS** Hypocalcemia and pregnancy, as well as hypersensitivity to any component of the product. **SPECIAL WARNINGS AND PRECAUTIONS FOR USE** *Hypersensitivity:* Clinically significant hypersensitivity including anaphylaxis has been reported with Prolia. Symptoms have included hypotension, dyspnea, throat tightness, facial and upper airway edema, pruritis, and urticaria. *Hypocalcemia and Mineral Metabolism:* Hypocalcemia may be exacerbated by the use of Prolia. Pre-existing hypocalcemia must be corrected prior to initiating therapy with Prolia. Hypocalcemia following Prolia administration is a significant risk in patients with severe renal impairment [creatinine clearance < 30 mL/min] or receiving dialysis. Adequately supplement all patients with calcium and vitamin D. Osteonecrosis of the Jaw (ONJ): ONJ has been reported in patients receiving Prolia. The start of treatment or of a new course of treatment should be delayed in patients with unhealed open soft tissue lesions in the mouth. A dental examination with preventive dentistry and an individual benefit-risk assessment is recommended prior to treatment with Prolia in patients with concomitant risk factors. All patients should be encouraged to maintain good oral hygiene, undergo routine dental check-ups, and immediately report any oral symptoms such as dental mobility, pain or swelling, or non-healing of sores or discharge during treatment with Prolia. While on treatment, invasive dental procedures should be performed with caution and avoided in close proximity to Prolia treatment. Atypical Subtrochanteric and Diaphyseal Femoral Fractures: Atypical low-energy or low trauma fractures of the shaft have been reported in patients receiving Prolia. Patients should be advised to report new or unusual thigh, hip, or groin pain. Serious Infections: Serious infections leading to hospitalization were reported in clinical trial. Advise patients to seek prompt medical attention if they develop signs or symptoms of severe infection, including cellulitis. *Dermatologic Adverse Reactions:* Dermatitis, eczema, and rashes. Most of these events were not specific to the injection site. Consider discontinuing Prolia if severe symptoms develop. *Musculoskeletal Pain:* Severe and occasionally incapacitating bone, joint, and/or muscle pain. Consider discontinuing use if severe symptoms develop. Suppression of Bone Turnover: In clinical trials treatment with Prolia resulted in significant suppression of bone remodeling as evidenced by markers of bone turnover and bone histomorphometry. **INTERACTIONS** In subjects with postmenopausal osteoporosis, Prolia (60 mg subcutaneous injection) did not affect the pharmacokinetics of midazolam, which is metabolized by cytochrome P450 3A4 (CYP3A4), indicating that it should not affect the pharmacokinetics of drugs metabolized by this enzyme in this population. **PREGNANCY AND LACTATION** *Pregnancy:* Category X. Breast-feeding: It is not known whether Prolia is excreted into human milk. **PEDIATRIC, GERIATRIC AND RENAL IMPAIRMENT** *Pediatric:* Prolia is not recommended in pediatric patients. Geriatric: No overall differences in safety or efficacy were observed in clinical studies between elderly patients and younger patients and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out. Renal Impairment: No dose adjustment is necessary in patients with renal impairment. **UNDESIRABLE EFFECTS** The most common adverse reactions reported with Prolia in patients with postmenopausal osteoporosis are back pain, pain in extremity, musculoskeletal pain, hypercholesterolemia, and cystitis. The most common adverse reactions reported with Prolia in men with osteoporosis are back pain, arthralgia, and nasopharyngitis. The most common (per patient incidence ≥ 10%) adverse reactions reported with Prolia in patients with bone loss receiving androgen deprivation therapy for prostate cancer or adjuvant aromatase inhibitor therapy for breast cancer are arthralgia and back pain. Pain in extremity and musculoskeletal pain have also been reported in clinical trials. The most common adverse reactions leading to discontinuation of Prolia in patients with postmenopausal osteoporosis are back pain and constipation. **OVERDOSE** There is no experience with overdosage with Prolia. Abbreviated Prescribing Information Version: HKPI20160001

References:
1. Boonen S *et al. J Clin Endocrinol Metab* 2011; **96**: 1727-1736.
2. Prolia®, Hong Kong Prescribing Information, Jun 2016.
3. Cummings SR *et al. N Engl J Med* 2009; **361**: 756-765.

Please read the full prescribing information prior to administration and full prescribing information is available upon request.
This material is for the reference and use by healthcare professionals only.
For medical enquiries and adverse event reporting, please contact Medical Information at 800961142 (English only).

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