

**Legislative Council Panel on Health Services**

**Prevention and Treatment of Osteoporosis**

**PURPOSE**

This paper briefs members on the Administration's measures on prevention and treatment of osteoporosis.

**BACKGROUND**

2. Osteoporosis is a chronic metabolic disease of bone which leads to a reduction in bone density. The affected bones become thinner, and are more likely to break (fractures) which may result in pain and other complications, including loss of independence. Osteoporosis produces no symptoms on its own. If osteoporosis-related fracture occurs, there may be localised pain over the fracture sites. Common sites of osteoporotic fracture include thigh bone near the hip joint, spine (vertebrae) and forearm near the wrist. While hip fracture may occur after minor fall, spine can fracture without any trauma. Vertebral fracture can result in a hunched-back and a decrease in body height, and sometimes back pain.

3. Prevention of osteoporosis should begin by building strong and healthy bones at an early age. To avoid or reduce bone density loss and to minimise fracture risk, all people regardless of age should adopt a healthy lifestyle. This can be achieved by doing regular physical and weight-bearing exercises, maintaining optimal body weight, eating a balanced diet for adequate calcium and vitamin D intake, having appropriate sunlight exposure for vitamin D synthesis, and refraining from smoking and excessive drinking. Elderly persons should take extra fall prevention precautions to further reduce the risks of fracture and other complications.

**ONGOING MEASURES**

4. The Administration has been implementing the following measures for the prevention and treatment of osteoporosis –

***Health promotion and education***

5. The Department of Health (“DH”) provides health education on the

maintenance of bone health, prevention of osteoporosis and falls that may lead to fractures, as well as advocates the importance of adopting a healthy diet and lifestyle to prevent the disease through its various services, e.g. Centre for Health Protection, Elderly Health Service and Family Health Service. Relevant health information on osteoporosis, including but not limited to its symptoms, prevention and treatment, has been uploaded onto websites for public's reference. Health education messages are also disseminated through other channels as health talks, individual counselling and leaflets. Moreover, the DH's Drug Office has also published and uploaded to its website detailed information on oral antiosteoporotic drugs, including the commonly-used oral antiosteoporotic drugs available, their common side effects and precautions, general advice, suggestions on communications with doctor and storage. The above health education resources are being regularly reviewed to meet the needs of the community.

### ***Assessment and Treatment***

6. Currently there is no sufficient scientific evidence to support a territory-wide osteoporosis screening programme in Hong Kong. In adopting an evidence-based approach, the DH does not provide bone mineral density screening service. People who are at risk of developing osteoporosis due to, for example, underweight, previous history of bone fracture, premature menopause, smoking habit or heavy drinking, or a family history of osteoporosis or fracture, should take active control of the risk factors and seek medical advice on appropriate management options, such as bone mineral density assessment or treatment. At present, under the Elderly Health Care Voucher Scheme, eligible elders aged 65 or above are provided with an annual voucher amount of \$2,000 for them to use private primary healthcare services that best suit their health needs, including those for the management of osteoporosis and other chronic diseases.

7. In hospital settings, patients often present with fragility fracture as a complication of osteoporosis. For patients suffering from osteoporotic fracture, secondary prevention through bone health management and fall prevention are important. Since 2017-18, the Hospital Authority ("HA") has established Acute Geriatric Fragility Fracture ("AGFF") Nursing Coordination Services in Pamela Youde Nethersole Eastern Hospital, Queen Elizabeth Hospital and United Christian Hospital. The AGFF Nursing Coordinators would coordinate the multidisciplinary clinical pathway for rehabilitation, and conduct educational talks for patients and their care takers with emphasis on bone health management and fall prevention. In 2019-20, the HA also further extended the AGFF Nursing Coordination Services to Queen Mary Hospital, Prince of Wales Hospital and Tuen Mun Hospital. Furthermore, the HA will set up AGFF Nursing Coordination Services in Caritas Medical Centre and Princess Margaret Hospital in 2020-21.

8. The HA strives to provide optimal treatment and care for patients with fragility fracture. Subsequent to the fracture management, follow-up check-up service, including dual X-ray absorptiometry for bone mineral densities, where indicated, is available upon referral by doctors. In addition, secondary prevention of osteoporotic fractures by pharmaceutical treatment can be prescribed by various specialists, including Endocrinologist, Geriatricians, Family Physicians and Orthopaedic Surgeons for indicated patients.

## **RECENT DEVELOPMENTS**

### ***Primary healthcare***

9. Separately, in a bid to shift the emphasis of the present healthcare system and people's mindset from treatment-oriented healthcare services to prevention-focused, the Government is committed to enhancing district-based primary healthcare services by setting up District Health Centres ("DHCs") in 18 districts progressively to enhance the public's capability in self-management of health and provide support for the chronically ill. The first DHC in Kwai Tsing District commenced operation in September 2019.

10. With a focus on prevention, DHCs will attend to promote primary prevention of osteoporosis and osteoporotic fracture through evidence-based measures which include education on sufficient calcium and vitamin D levels, regular weight-bearing exercise, fall prevention, and avoidance of tobacco and excessive alcohol. For high risk elderly, muscle strength and balance training, advice on mobility aids and gadgets as well as advice on home hazards and safety intervention or modification will be provided as appropriate. For patients that are referred by the HA or network medical professionals to join the fracture hip rehabilitation programme, individualised treatment sessions by a range of allied health professionals (including physiotherapists and occupational therapists) and suggestion on home modification to prevent repeated falls would also be offered.

## **WAY FORWARD**

11. As there are still controversies in osteoporosis screening and yet sufficient evidence to support universal screening programme in Hong Kong, the Administration will keep in view the latest development of local and overseas evidence in determining appropriate policy in Hong Kong in future. The DH will continue to conduct regular reviews on the health education resources to meet the needs of the community. Separately, under the steer of the Steering Committee on Primary Healthcare Development, the Food and Health Bureau will constantly review the service scope of DHCs with a view to providing evidence-based, efficient and cost-effective primary healthcare services via district-based medical-social

collaboration in the community. Indeed, as indicated above, prevention of osteoporosis should begin by building strong and healthy bones at an early age. To avoid or reduce bone density loss and to minimise fracture risk, all people regardless of age should adopt a healthy lifestyle.

## **ADVICE SOUGHT**

12. Members are invited to note the contents of the paper.

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