The Ontario Osteoporosis Strategy Overview

The Ontario Osteoporosis Strategy (the Strategy), a Ministry of Health funded initiative, is committed to improving the prevention, care, and outcomes of osteoporosis-related fractures, particularly hip fractures, which place a significant burden on the healthcare system. The Strategy aims to address the growing healthcare burden posed by osteoporosis, a condition that weakens bones and increases fracture risk, especially in an aging population.

The Strategy represents the vision and coordinated effort of key provincial partners including: Osteoporosis Canada, the Ontario Orthopaedic Association, the Ontario College of Family Physicians, the Ontario Hospital Association, McMaster Health Sciences, Women's College Hospital and St. Michael's Hospital. The Fracture Screening and Prevention Program (FSPP) is a key initiative of the Strategy, operated by Osteoporosis Canada, and works collaboratively to address the following key issues:

- **Hip and Fragility Fractures:** Osteoporosis-related or fragility fractures are more common in Canada than heart attacks, stroke, and breast cancer combined [1][2]. Half of hip fracture patients have had a prior osteoporotic fracture, and 15 per cent of individuals who experienced a hip fracture have previously broken one hip [3]. By missing the opportunity to respond to the first fracture, the healthcare system is failing to prevent the second and subsequent fractures.

- **Burden on the Healthcare System:** Hip fractures result in high mortality (20% of patients with hip fractures die within the first year) and long-term care needs (27% of hip fracture patients require permanent admission to a chronic care facility within the year following the fracture) [4]. Ontarians sustain almost 60,000 osteoporosis-related fractures annually, and of those, about 13,000 hip fractures result in a hospital admission. The total cost of treatment for all hip fractures occurring in 2018/19 (in adults aged 66+) was estimated to be over **$280M** (only direct utilization costs during inpatient hospitalization and/or inpatient rehabilitation included) for the episode of care [5].

- **Gap in Fracture Prevention:** Despite the availability of comprehensive fracture risk assessments, bone mineral density (BMD) testing, and osteoporosis treatments, only 40.7% of hip fracture patients were investigated or treated for osteoporosis within 12 months of their hip fracture [6].

Fracture Screening and Prevention Program (FSPP):
The FSPP, launched in 2007, currently operates in 30 hospital-based orthopaedic clinics across Ontario. The program focuses on secondary fracture prevention - identifying and assessing fracture risk for patients aged 50 years or older presenting with osteoporosis-related fractures to reduce the risk of future fractures, particularly hip fractures.

Fracture Prevention Coordinators (FPCs) are stationed by Osteoporosis Canada in designated fracture clinics at participating hospitals across Ontario and work to identify at-risk patients. They conduct a brief assessment, asking about the patient's health and lifestyle to assess fracture risk as per current clinical practice guidelines. If necessary, the FPC may ask the orthopaedic surgeon to order a bone mineral density (BMD) test to complete the fracture risk assessment. For high-risk patients where referral to an OP Specialist is recommended, the FPC will request that the orthopaedic surgeon make the referral.

The BMD test and/or specialist referral is facilitated and expedited by the FPC. At the end of the screening process, the FPC provides educational resources and recommends that the patient follow up with their primary care provider. In all cases, the patient's primary care provider is provided an update, including the BMD report (if a BMD test was completed), any actions taken and recommendations to ensure ongoing monitoring, further assessment, appropriate treatment, and care.

At each site, an Orthopaedic "Champion" is nominated to act as the OOA representative for the program at the participating hospital to help facilitate and support the smooth functioning of the program.

Notes:

[1] A fragility fracture occurs from a low-impact injury that would not typically cause a bone to break and is often an indicator of osteoporosis

[2] Leslie WD, et al. *Osteoporos Int* . 2010; 21:1317-1322; 2. Burge J, et al. *J Bone Miner Res.* 2007;22:465-475;

[3] Guy P, Sobolev B et al. The burden of second hip fractures: provincial surgical hospitalizations over 15 years. Canadian Journal of Surgery 2017; 60(2):101-107

[4] Cooper C. The crippling consequences of fractures and their impact on quality of life. The American Journal of Medicine. 1997; 103 (2A): 12S-19S

[5][6] Osteoporosis Strategy for Ontario. (2023). *OOS Provincial performance data: Technical report (March 17, 2023)*. https://osteostrategy.on.ca/wp-content/uploads/OOS-Provincial-Performance-Data-Technical-Report-Mar-17-23.pdf