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| **TITLE:** | Osteoporosis Screening and Care Coordination for Fragility Fracture Patients Over 50 Years of Age | NUMBER: | CC 30-xxx |
| Effective Date: |  | Page | (x of y) |
| Applies To: | Holders of Interdisciplinary Clinical Manual – FLS Coordinators | | |

##### THIS IS A MEDICAL DIRECTIVE FOR *REGISTERED NURSE Fracture Liaison Service Coordinator* THAT REQUIRES ASSESSMENT OF COMPETENCY PRIOR TO PERFORMING

##### POLICY

1. Osteoporosis screening and the determination and coordination of the need for diagnostic and laboratory testing for osteoporosis is a Medical Directive for the FLS Coordinator (FLSC) and is performed for specific patients under specific conditions as follow:
   1. Patients are over the age 50 and have presented with a wrist, shoulder, spine, pelvic or hip fracture.
   2. The FLSC has screened the type of fracture that the patient has sustained and determined it to be a [low trauma/fragility fracture](#Definition). (Refer to Definitions)
   3. The FLSC follows the current *Osteoporosis Canada Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis* for the screening and subsequent determination of the defined diagnostic and laboratory tests and for recommendations for Vitamin D supplementation.
   4. The FLSC carries out these functions only in the orthopedic clinic, radiology and inpatient settings and only upon receiving the agreement of the patient to participate.
   5. The FLSC has been deemed competent to perform this medical function through:
      1. Acquiring a minimum of 6 months experience working with osteoporosis patients.
      2. Completion of a review of the current *Osteoporosis Canada Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis in Canada.*
      3. Completion of a competency assessment with the delegating physician by means of direct supervision/observation during clinics until the FN is deemed able to perform independently.
      4. Annual competency assessment by means of case review with the delegating physician.
2. The FLSC will require access to health records to screen patients for assessment and to follow up with test results.
3. Diagnostic imaging reports of Bone Mineral Density (BMD) and spine radiographs are to be sent to the FLSC for follow-up with the primary care provider.
4. The Delegating Physician for the Fracture Liaison Service will be available for consultation by phone during clinic time.

DEFINITIONS

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| **Low Trauma/Fragility Fracture:** | A fracture that occurs spontaneously or easily from a simple activity such as reaching, bending, twisting, coughing or sneezing. It can also occur from a minor trauma such as a fall from standing height or less at walking speed or less. |

**GUIDING PRINCIPLES AND VALUES**

1. Fragility fractures, the consequence of osteoporosis, are responsible for excess mortality, morbidity, chronic pain, admission to institutions and economic costs. They represent 80% of all fractures in menopausal women over age 50. Those with hip or vertebral fractures have substantially increased risk of death after the fracture. Post-fracture mortality and institutionalization rates are higher for men than for women.
2. Despite the high prevalence of fragility fractures in the Canadian population and the knowledge that fractures predict future fractures, fewer than 20% of women and 10% of men receive therapies to prevent further fractures. These statistics contrast sharply with the situation for cardiovascular disease, where 75% of patients who have had myocardial infarction receive β-blockers to prevent another event.
3. Medical management of low trauma fractures by a coordinator who takes responsibility for identifying fragility fracture patients, educating, performing risk assessments, determining indications for treatment according to national guidelines, communicating with primary care providers to support appropriate therapy, follow-up with patients to ensure persistence with care will help to ensure that the care gap in the management of the underlying osteoporosis causing these fractures is treated. (Eisman et. Al., 2012)

**Procedure**

1. **Wrist/Humerus Fracture**
   1. Assess patients over 50 years of age presenting with a wrist or humerus fracture for evidence that the fracture was a low trauma/fragility fracture.
   2. If the fracture meets the criteria, assess if/when the patient has had a previous BMD test done. If the patient has not had a BMD in the previous 12 months complete the requisition for a BMD with results to go to the primary care provider.
   3. If the fracture meets the criteria, assess if the patient has had recent spine or chest x-rays; if not order Lateral Views of the Thoracic and Lumbar spine with the results to go to the primary care provider.
   4. Complete a requisition for laboratory testing for CBC, alkaline phosphatase, creatinine, ionized Calcium, TSH and 25 hydroxy Vitamin D, with the results to go to the primary care provider. (Papaioannou et. Al. 2010).

**Note:**  A vitamin D test will be done once the patient has been on a supplement for at least 3 months)

1. **Spine Fracture**
   1. Assess patients over 50 years of age presenting with a Grade 2 or Grade 3 spinal fracture (as indicated on radiologist’s report) for evidence that the fracture was a low trauma/fragility fracture.
   2. If the fracture meets the criteria, assess if the x-ray covered both the thoracic and lumbar spine. If not, complete the requisition for the x-ray for the section of the spine not previously x-rayed with results to go to the primary care provider.
   3. If the fracture meets the criteria, assess if/when the patient has had a previous BMD test done. If the patient has not had a BMD in the previous 12 months complete the requisition for a BMD with results to go to the primary care provider.
   4. Complete a requisition for laboratory testing for CBC, alkaline phosphatase, serum protein electrophoresis, creatinine, ionized Calcium, TSH and 25 hydroxy Vitamin D, with the results to go to the primary care provider. (Papaioannou et. Al. 2010).

**Note:**  A vitamin D test will be done once the patient has been on a supplement for at least 3 months)

1. **Hip Fracture**
   1. Assess patients over 50 years of age presenting with a non traumatic hip fracture.
   2. Assess if the patient has had recent x-rays of lateral views of the thoracic and lumbar spine, if not complete the requisition with the results to go to the primary care provider.
   3. If the patient has not had a BMD in the previous 12 months complete the requisition with the results to go to the primary care provider.
   4. If the patient has not had during acute treatment of the hip fracture, complete a requisition for laboratory testing for CBC, alkaline phosphatase, Creatinine, ionized Calcium, TSH and 25 hydroxy Vitamin D with the results to go to the primary care provider. (Papaioannou et. Al. 2010).

**Note:**  A vitamin D test will be done once the patient has been on a supplement for at least 3 months)

1. **All Fractures (Wrist, Humerous, Spine and Hip)**
   1. Send a letter to the primary care provider indicating that the patient has been seen and that the tests have been ordered with the results to go to him/her. Include in the letter Osteoporosis Canada’s recommendations for treatment. (Refer to [Related Documents - Forms](#RelatedDocumentsForms))

**REFERENCES**

Eisman, J, et al. Making the First Fracture the Last Fracture: ASBMR Task Force Report on Secondary Fracture Prevention: Journal of Bone and Mineral Research, Vol. 27, No. 9, Sept 2012, pp 1-8.

Papaioannou A, et al. 2010 Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis in Canada: Summary. CMAJ, 2010 October.

**RELATED DOCUMENTS**

**Forms**

VPPP310013 Fragility Fracture Patient Care Checklist

Letters to Primary Care Providers:

* Hip Fracture – High Risk, No Rx (NP)
* Hip Fracture – High Risk, On Rx (NP)
* Spine Fracture, Initial Contact
* Spine Fracture, Initial Visit, Osteoporotic
* Spine Fracture, Old, High Impact Trauma
* Unspecified Fx, High Risk, No Rx
* Unspecified Fx, High Risk, On Rx
* Wrist, Shoulder, Pelvic – Initial Visit
* Wrist, Shoulder, Pelvic – BMD, High Risk, No Rx
* Wrist, Shoulder, Pelvic– BMD, High Risk, On Rx
* Wrist, Shoulder, Pelvic – Moderate Risk
* Reminder Letter

**Appendices**

[Appendix A](#AppA) Deciding on Pharmacological Treatment Post Fracture

**Other**

Osteoporosis Clinical Practice Guidelines:

<http://www.osteoporosis.ca/multimedia/pdf/Osteoporosis_Guidelines_2010_Background_And_Technical_Report.pdf>

Osteoporosis Quick Reference Guide:

[www.osteoporosis.ca/multimedia/pdf/Quick\_Reference\_Guide\_October\_2010.pdf](http://www.osteoporosis.ca/multimedia/pdf/Quick_Reference_Guide_October_2010.pdf)

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**Appendix A**

