

Targeting Osteoporosis and Fractures in Canada

Care Gaps: Highlighting the Need for Knowledge Translation

Currently, serious gaps exist between what is known about osteoporosis and what is being done in clinical practice, particularly for those at high risk for fracture. Since the publication of the last guidelines in 2002 (CMAJ 2002; 1678:S1) and 2006 (JOGC 2006; 172:S95), there has been a paradigm shift in fracture risk assessment (CARJ;2005;56:178) and treatment decisions.

Assessment and treatment gaps:

- Less than 50% of women with fragility fractures receive Bone Mineral Density (BMD) testing or osteoporosis treatment.¹⁻³
- The treatment gap is even larger in men.^{2,4}
- Those who do not receive treatment for osteoporosis following fragility fracture are at high risk of subsequent fractures.⁶

Goal: The goal of this project is to update our practice-based guidelines for the diagnosis and treatment of osteoporosis and osteoporotic fractures to incorporate the new fracture risk assessment model.

Proposed Systematic Reviews

Two systematic reviews will be conducted:

Absolute Fracture Risk Assessment: The use of absolute fracture risk as the basis for risk assessment and BMD interpretation has been adopted by Osteoporosis Canada; other systems have become available (e.g., FRAX tool). However, fracture risk varies dramatically between populations and risk assessment systems need to be carefully calibrated and validated within specific populations before widespread use. The objective of this systematic review is to review and contrast existing models or systems of defining fracture risk that have been published in the past ten years and to examine the level of evidence that supports the use of these models.

Osteoporosis treatment: We will conduct a systematic review of meta-analyses of therapies used to treat individuals over the age of 50 years at increased risk for fracture. In cases where there are no existing meta-analyses, randomized control trials of treatments will be assessed for quality of evidence.

Integrated Guidelines for Management of Osteoporosis in Canada

Data will be integrated from systematic reviews and the recently published 10-year model for absolute fracture risk assessment to develop and implement knowledge translation strategies to address the care gaps.

Osteoporosis Canada Scientific Advisory Council

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¹ Metge CJ. et al. Can Fam Physician 2008;54:1270-1276.

³ Papaioannou A. et al. BMC Musculoskeletal Disorders 2004;5(11).

² Giangregorio L. et al. Sem Arthritis Rheum 2006;35:293-305.

⁴ Papaioannou A. et al. Osteoporos Int 2008;19:581-587.