Make the First Break the Last! Fracture Liaison Services (FLS)

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The Problem

After they break a bone, fewer than 20% of fragility fracture patients ever receive the bone mineral density (BMD) evaluation and/or treatment they require for their underlying osteoporosis. Countless Canadians go on to suffer debilitating repeat fractures because of this huge care gap.

Fractures Are Common

One in three women and one in five men will suffer a fracture during their lifetime. The overwhelming majority of these fractures are due to osteoporosis (Figure 1).

Fractures Beget Fractures

- 14% of wrist fracture patients will suffer another fracture within three years.
- 20% of vertebral fracture patients will suffer another vertebral fracture within one year.
- 9% of hip fracture patients will break the other hip within one year.
- Of patients with hip fractures, half have "warned" physicians in advance that they were at high risk when they suffered a prior "signal" fracture.
- Many secondary fractures can be avoided with effective drug treatment.

The Cost-effective Solution: FLS

FLS is a systematic approach that ensures that all patients who present with a "signal" fracture receive the osteoporosis care they need to prevent future fragility fractures. Support for FLS is growing around the world, and while Canada is seen as an innovative leader, there is a long way to go. Most Canadian hospitals do not have an FLS—indeed, most provinces do not have any FLS!

How Does It Work?

A dedicated FLS coordinator (usually a nurse or nurse practitioner) intervenes immediately after a first fragility fracture to ensure that all fracture patients have a comprehensive fracture risk-assessment, and then receive treatment as warranted to prevent the next fracture. The steps in the process are:

- Identification: all men and women over 50 years of age who present with fragility fractures will be assessed for risk factors for osteoporosis and future fractures.
- Investigation: as per the 2010 Osteoporosis Canada Guidelines, those at risk will undergo BMD testing.
- Initiation: where appropriate, osteoporosis treatment will be initiated.

Under this "3-i" model, the dedicated FLS staff coordinate the patient's care, working within the protocols of the institution and under the direction of a physician with expertise in osteoporosis.



Figure 1. Incidence of Osteoporotic Fracture, Heart Attack, Stroke, and Breast Cancer in Canadian Women

What Does Success Look Like?

The FLS model of care has been shown within Canada and many other countries to eliminate the post-fracture osteoporosis care gap, reducing the incidence of repeat fractures, reducing mortality, and resulting in significant cost savings. When formal cost–effectiveness analyses are done, even when considering all costs (including additional BMD tests performed and additional osteoporosis medications prescribed), the 3-i FLS model is consistently proven to be the most cost effective.

What You Can Do To Help

Rheumatologists can become engaged and respected as local champions for FLS. Implementing an FLS from scratch is not an easy task. For this reason, Osteoporosis Canada has developed an FLS Toolkit to facilitate matters. This Toolkit contains comprehensive background information on FLS including province-specific information and templates for various documents (algorithms, job descriptions, form letters to primary care providers, etc.) which can be downloaded and adapted to fit the needs of individual institutions.

Make the First Break the Last! by joining the campaign to improve osteoporosis care for fragility fracture patients in your community. More information, resources, and practical guidance on the implementation of FLS can be found at www.osteoporosis.ca/fracture-liaison-service. Join Osteoporosis Canada's FLS Network (for free!) and you will receive regular updates and invitations to webinars on topics related to FLS and post-fracture care. You can also contact me at dtheriault@osteoporosis.ca.

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to inform models-of-care and address long wait times. Consequently, a measure of the number of rheumatologists per capita has been included in a set of six performance measures for model-of-care evaluation by the AAC.¹⁰ This measure is of critical importance to the CRA and provincial organizations when addressing workforce capacity issues based on accurate evidence; it is also of interest to trainees looking for jobs.

We are asking for your support in mapping current service demands and capacity in rheumatology to inform resource planning for the future. To do this we need accurate information about the services rheumatologists provide and where we provide them. Over the next year we will evaluate methodologies to examine workforce capacity in rheumatology and start measuring and mapping rheumatologists in Canada.

Will you join us by standing up to be counted?

References

- Kur J, Koehler B. Rheumatologist demographics in British Columbia: A looming crisis. BCMJ 2011; 53(3):128-31.
- Widdifield J, Paterson JM, Bernatsky S, et al. The rising burden of rheumatoid arthritis surpasses rheumatology supply in Ontario. Can J Public Health 2013; 104(7):e450-5.
- Ahluwalia V, Thorne C, Bombardier C, et al. Models of Care. Ontario Rheumatology Association, 2014. Available at: www.ontariorheum.ca/publications/other-publications.
- Ahluwalia V, Frank C, Mosher DP, et al. A pan-Canadian approach to inflammatory arthritis models of care, 2014. Available at: www.arthritisalliance.ca/en/initiativesen/

pan-canadian-approach-to-ia-models-of-care.

- Canadian Institute for Health Information (CIHI). Indicator library, 2014. Available at: www.cihi.ca/CIHI-ext-portal/internet/EN/TabbedContent/health+system+performance/ indicators/indicator+library/cihi013913.
- Canadian Medical Association (CMA). Canadian physician statistics, 2014. Available at: www.cma.ca/En/Pages/canadian-physician-statistics.aspx.
- Hanly JG. Physician resources and postgraduate training in Canadian academic rheumatology centers: a 5-year prospective study. J Rheumatol 2004; 31(6):1200-5.
- Hanly JG, Canadian Council of Academic Rheumatologists. Manpower in Canadian academic rheumatology units: current status and future trends. Canadian Council of Academic Rheumatologists. J Rheumatol 2001; 28(9):1944-51.
- Hanly JG, Barber C. Canadian Council of Academic Rheumatologists 2014 data. Personal communications, November 6, 2014.
- Barber C, Marshall D, Mosher DP, et al. Developing System Level Performance Measures for Evaluating Models of Care for Inflammatory Arthritis, 2014 (Abstract submitted for the CRA Annual Scientific Meeting).

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