The Role of the FLS Coordinator

Josée Delisle, BScN, MSc

IOF Webinar, December 12th, 2017

Disclosures

I declare that in the past 3 years:

We have received support from the following companies:

through research grants

Eli Lilly Canada

I have done consulting work for the following companies:

Amgen

I have done speaking engagements for the following companies:

Eli Lilly Canada, Amgen

I or my family do not hold individual shares in the above-mentioned companies

Presentation Outline

- Fragility Fracture
- Fracture Liaison Services
- Role of the coordinator
  - Dedicated vs standardized order set
- Challenges & Solutions
- FLS evaluation
- Capture The Fracture

Fragility Fractures

- The impact of fragility fractures (FF) is a growing health care issue.
- Few management systems aiming to reduce and prevent secondary fractures are currently in place.
- Historically, fragility fractures were poorly recognized and poorly treated[1]

[1]*Bessette and al 2008*

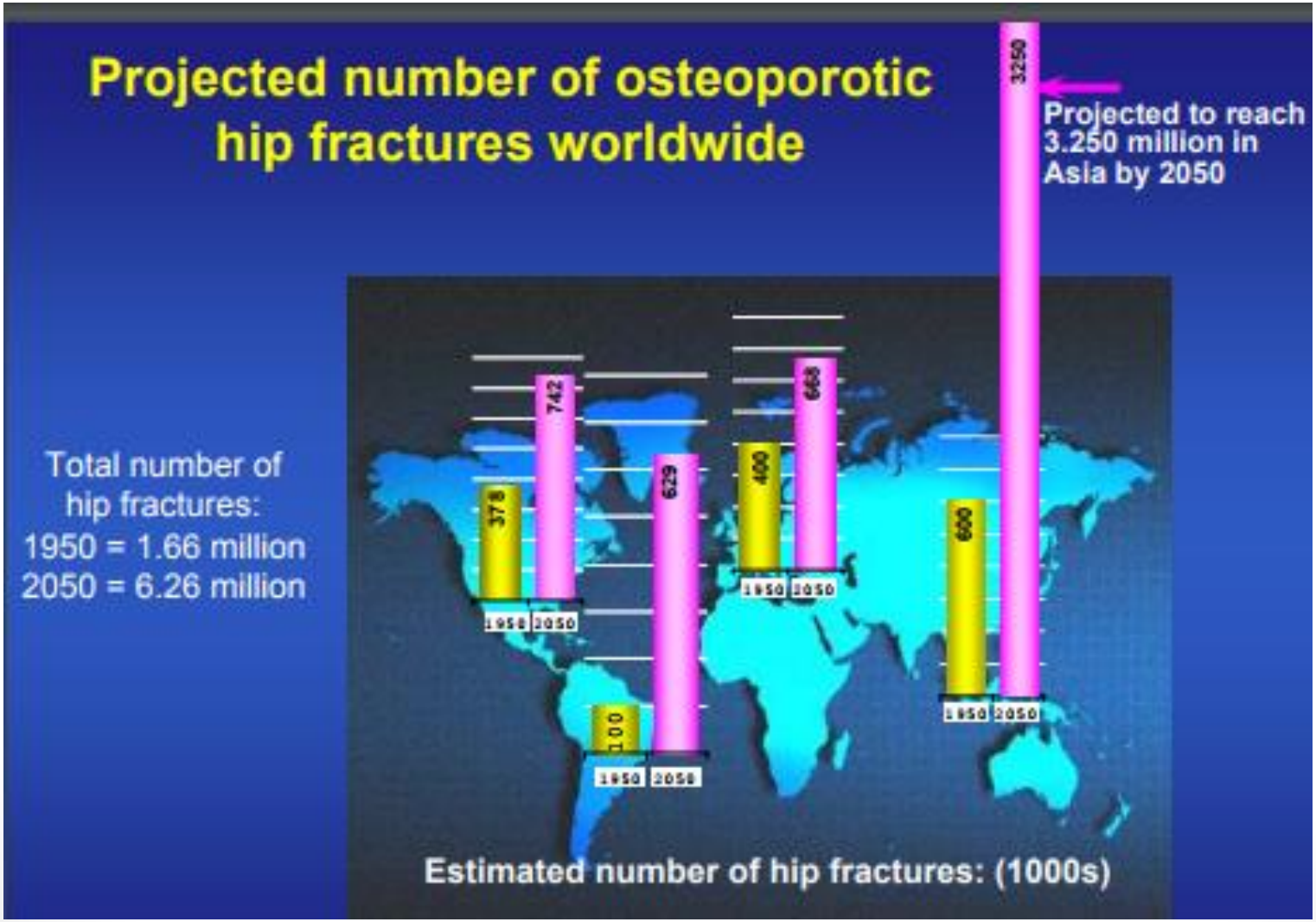
Fragility Fractures

- **Wrist Fx:**
  - 14% subsequent fracture at 3 years
- **Vertebral Fx:**
  - 20% subsequent fracture at 1 years
- **Hip Fx :**
  - 33% subsequent fracture at 1 years
  - 50% subsequent fracture at 5 years

- **50% hip fracture patients had already sustained a previous fracture**

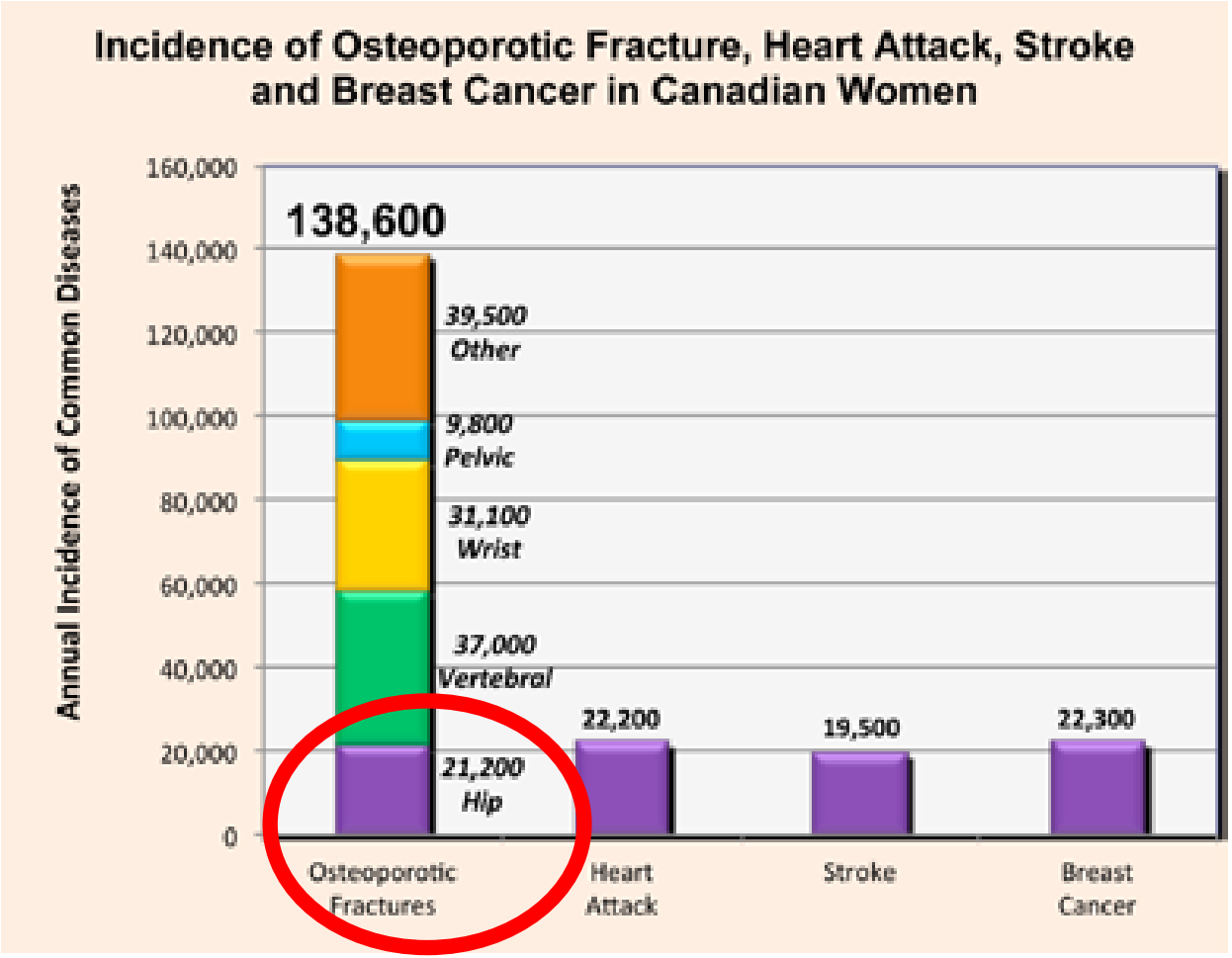
http://www.osteoporosis.ca/

Fragility Fractures



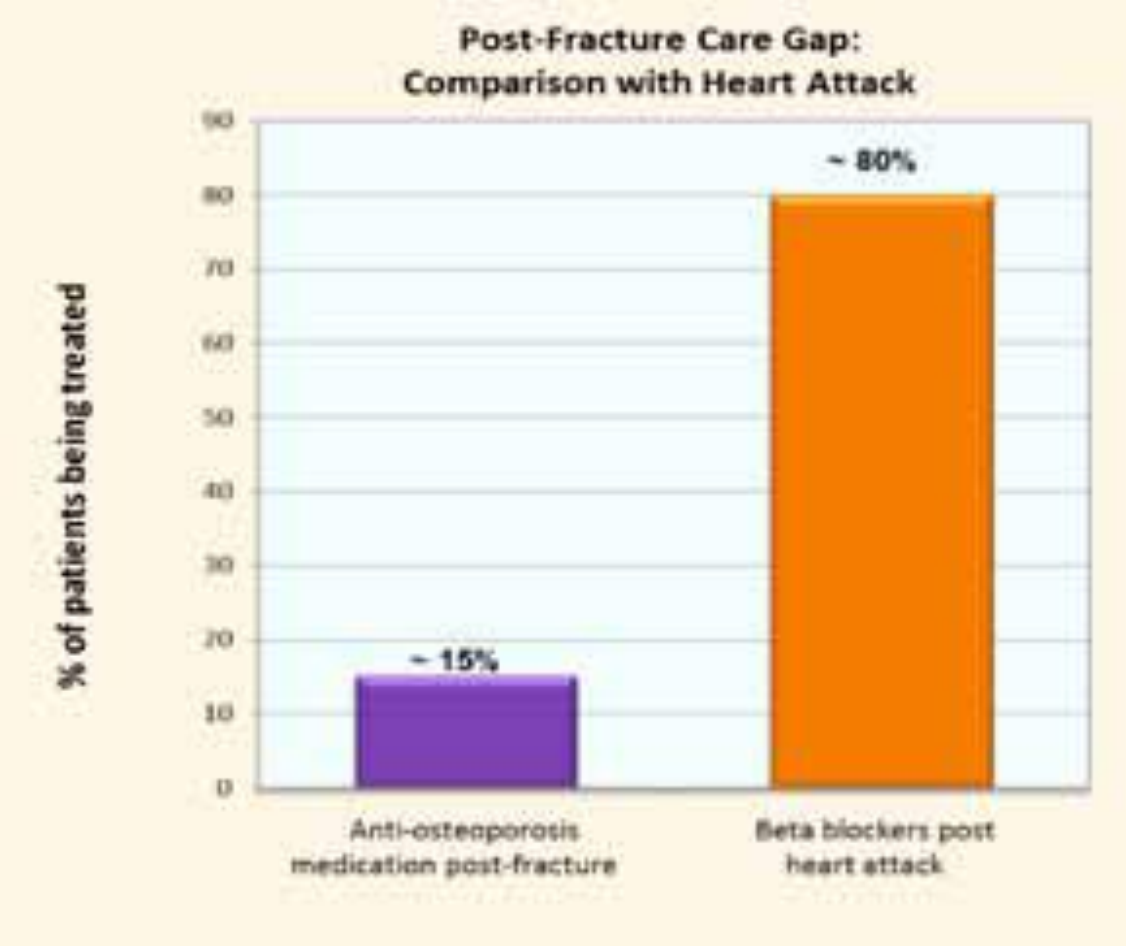
Adapted from Cooper et al, Osteoporos Int. 1992; 2:285-9/ IOF Slide Kit

Fragility Fractures



http://www.osteoporosis.ca/

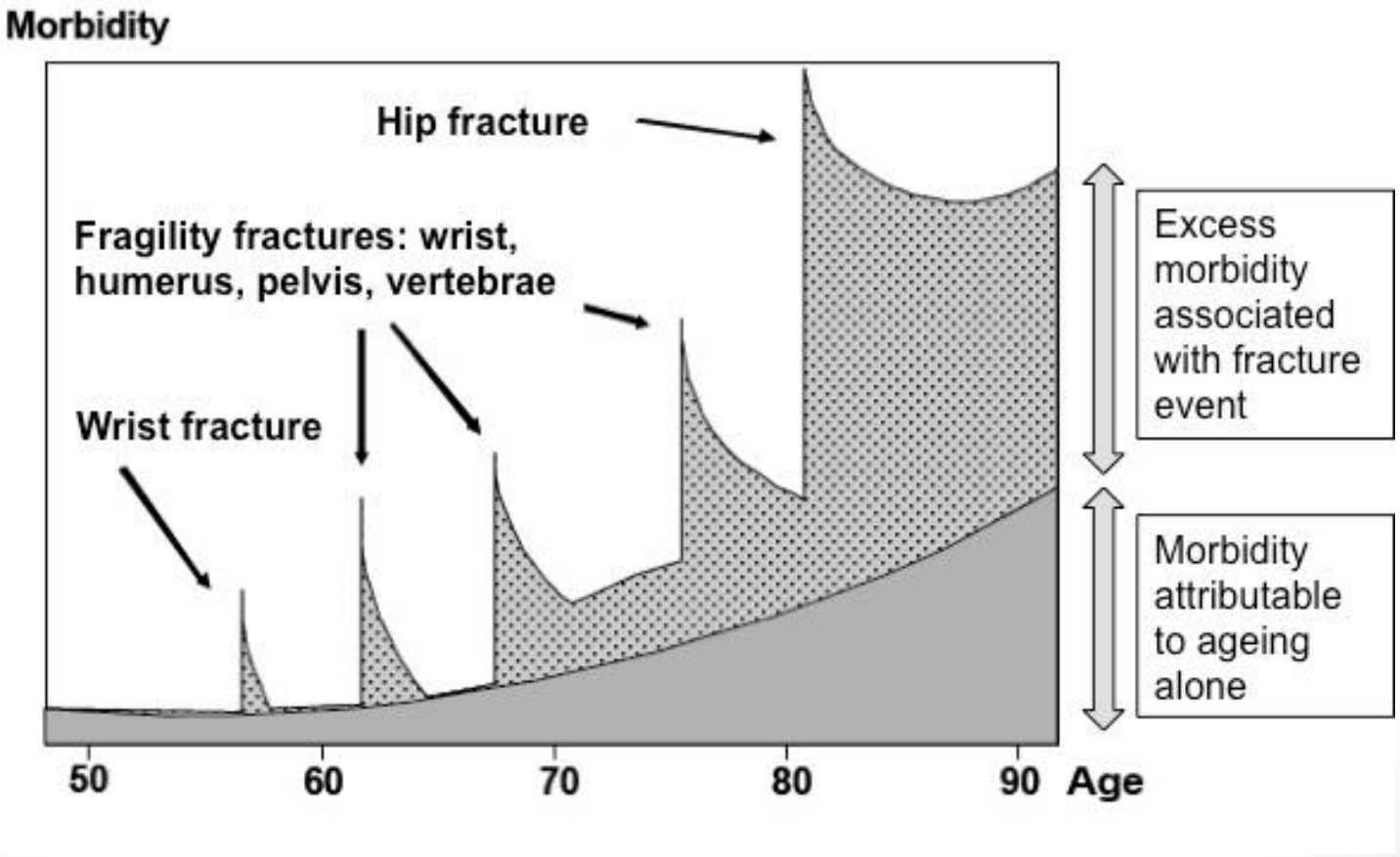
Fragility Fractures



http://www.osteoporosis.ca/

Fragility Fractures

Osteoporosis and FF throughout the life course



http://www.osteoporosis.ca/

Fragility Fractures

CARE GAP

- 20% patients ID and/or treated

Fragmented System of Care

- Multiple doctors
- Multiple nurses

Impacts patient's Quality of Life (QoL)

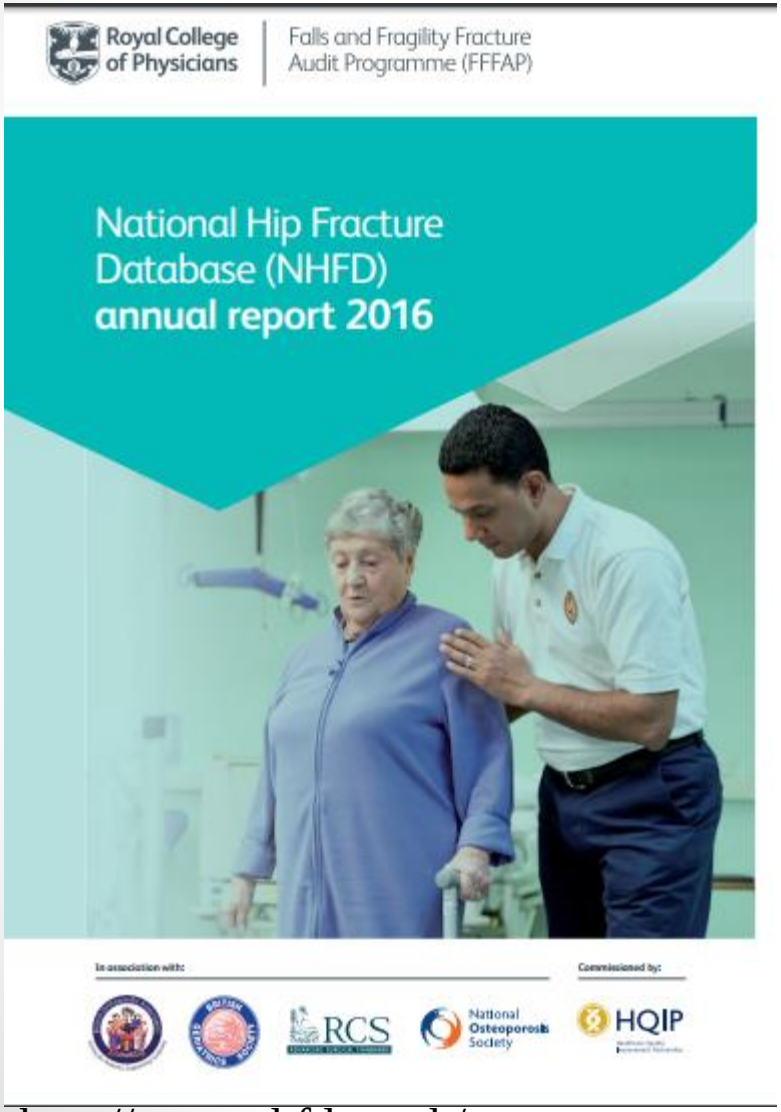
- Increase health care costs

Solution?

Build a team !

www.osteoporosecanada.ca

Fracture Liaison Service (FLS)



http://www.nhfd.co.uk/

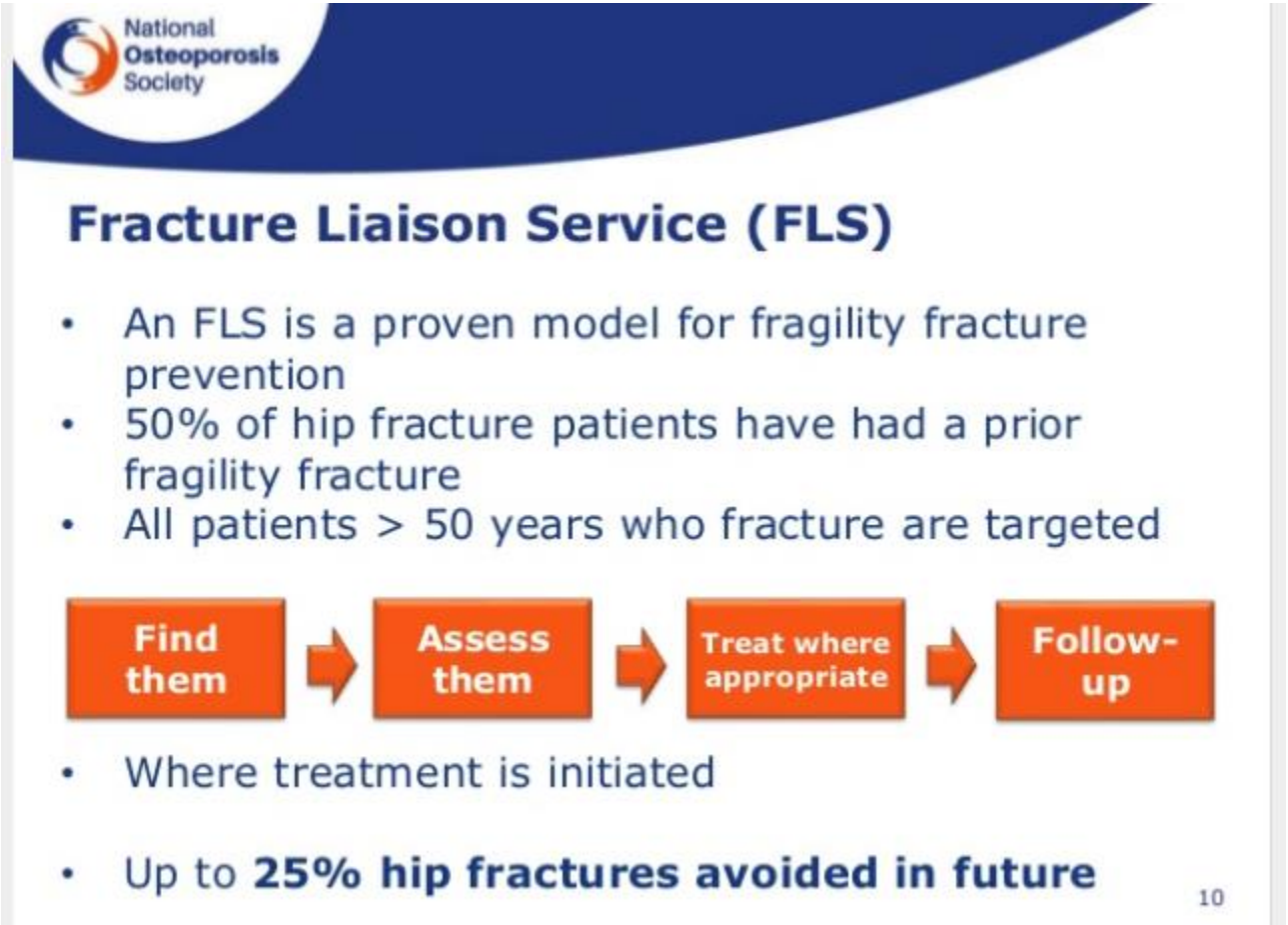
- All patients presenting with fragility fracture should be assessed to determine their need for antiresorptive therapy to prevent future osteoporotic fractures

  N H F D – field 5 . 0 2

- All patients presenting with a fragility fracture following a fall should be offered multidisciplinary assessment and intervention to prevent future falls

  N H F D – field 5 . 0 1

Fracture Liaison Service (FLS)



https://www.slideshare.net/NationalOsteoporosisSociety/iof-malaga-2016-preventing-future-fractures-implementing-service-improvement-in-fracture-liaison-services-throughout-the-uk

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Osteoporos Int (2011) 22 (Suppl 3):S457–S460
DOI 10.1007/s00198-011-1712-0

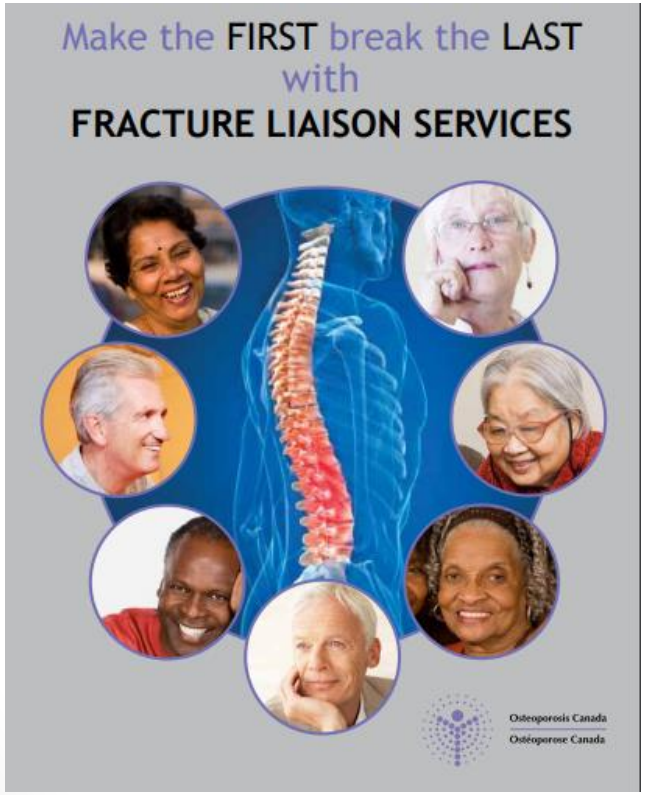
OPINION PAPER

Fracture prevention in Kaiser Permanente Southern California

R. Dell

Abstract
The Kaiser Permanente Healthy Bones Program has used a systematic approach to address the osteoporosis/fracture care gaps. The article discusses the ten-step processes that utilize information technology and care managers to identify, risk stratify, treat, and then track our patients with care gaps. This program has led to 40+% reduction in the expected number of hip fractures in 2009 that we attribute to the increase in DXA screening followed by appropriate osteoporosis treatment.

Fracture Liaison Service (FLS)



The Cost Effective Solution — Closing the Gap with Fracture Liaison Services

Growing number of Fracture Liaison Services (FLS) in Canada. Ensures that all patients who present with a 'signal' fracture receive the osteoporosis care they need to prevent future fragility fractures.

The Benefits of FLS

- Improved quality of life
- Reduced incidence of avoidable fractures
- Reduced disruption to patient flow in the health care system
- Significant cost-savings

(P.3)

Fracture Liaison Service (FLS)

Definition

- Usually coordinator-based
- secondary fracture prevention services
  - treatment of osteoporotic patients.

Goal

- Close the care gap
- Enhance communication between health care workers
- Provide care pathway

http://www.capture-the-fracture.org/fracture-liaison-services

Fracture Liaison Service (FLS)

- Improves identification rates
- Promotes fracture risk assessment through BMD & Fracture risk assessment tools (FRAX, CAROC, Qfracture)
- Promotes standardized treatment initiation and adherence
- Decrease subsequent fracture rate

American Academy of Nurse Practitioners

OUTCOMES RESEARCH

Outcomes of an osteoporosis disease-management program managed by nurse practitioners

Denise Greene, FNP-C, MSN[1], & Richard M. Dell, MD[2]

1 Kaiser Permanente, Orthopedics, 9897 Fonte RD Cypress Calif
2 Kaiser Permanente, Orthopedics, Bellflower, California

PERSPECTIVE

JBMR

Making the First Fracture the Last Fracture: ASBMR Task Force Report on Secondary Fracture Prevention

John A Eisman,[1] Earl R Bogoch,[2] Rick Dell,[3] J Timothy Harrington,[4] Ross E McKinney Jr.,[5] Alastair McLellan,[6] Paul J Mitchell,[7] Stuart Silverman,[8] Rick Singleton,[9] and Ethel Siris[10] for the ASBMR Task Force on Secondary Fracture Prevention

[1]Clinical Translation and Advanced Education, Garvan Institute of Medical Research; University of New South Wales; St Vincent's Hospital; and School of Medicine Sydney, University of Notre Dame, Sydney, NSW, Australia
[2]Mobility Program Clinical Research Unit, Keenan Research Centre, Li Ka Shing Knowledge Institute, St. Michael's Hospital; and Division of Orthopaedics, Department of Surgery, University of Toronto, Toronto, Canada
[3]Orthopedics, Kaiser Permanente Southern California, Downey, CA, USA
[4]Professor of Medicine (retired), University of Wisconsin School of Medicine and Public Health; Joiner Associates LLC, Madison, WI, USA
[5]Duke University School of Medicine, Durham, NC, USA
[6]Endocrinology, Western Infirmary, Glasgow, Scotland
[7]University of Derby, Derby, United Kingdom
[8]Rheumatology, Cedars-Sinai Medical Center, UCLA, Los Angeles, CA, USA
[9]Pastoral Care and Ethics, Health Sciences Centre, St. John's, NL, Canada
[10]Columbia University Medical Center, New York, NY, USA

Fracture Liaison Service (FLS)

Key stakeholders

- Physician champions
- NP/RN Fracture Care Providers
  - Coordination
- Administration
  - Policy

Fracture Liaison Service (FLS)

FLS Team members

- Orthopaedic Surgeons
- Primary Care Physicians
- Nurses/NP/PA
- Inpatient Services
- Internal Medicine
- Rheumatology
- Endocrinology
- Gynecology
- Radiology
- Pharmacy
- Physical Therapy (Fall Prevention program)
- Long Term Care
- Health Education
- Home Health

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Lisa Voss PA-C, MHS, CCD
Laura Frontiero FNP-C, MSN, CCD
FLS Care Coordination. Interdisciplinary Symposium on Osteoporosis (ISO14) in New Orleans, Louisiana, April 23-26, 2014.

Fracture Liaison Service (FLS)

Table 1. Post-fracture models of care and improvement in patient care outcomes[66]

Model	Description	Proportion receiving BMD testing*	Proportion receiving osteoporosis treatment
Status Quo[54]	Manitoba statistics for major osteoporotic fractures (2007/2008)	13%	8%
Type D (Zero i model)	Only provides osteoporosis education to the fracture patient. Primary care provider (PCP) is not alerted or educated.	No study on BMD testing	8%
Type C (1 i model)	1. Identification The PCP is alerted that a fracture has occurred and further assessment is needed. Leaves the investigation and initiation of treatment to the PCP.	43%	23%
Type B (2 i model)	1. Identification 2. Investigation Leaves the initiation of treatment for fragility fracture patients to the PCP.	60%	41%
Type A (3 i model)	1. Identification 2. Investigation 3. Initiation of osteoporosis treatment where appropriate.	79%	46%

* Although BMD testing is an important aspect of post-fracture care, in and of itself it cannot impact the rate of repeat fractures. Osteoporosis medication is necessary in order to reduce the rate of repeat fractures.

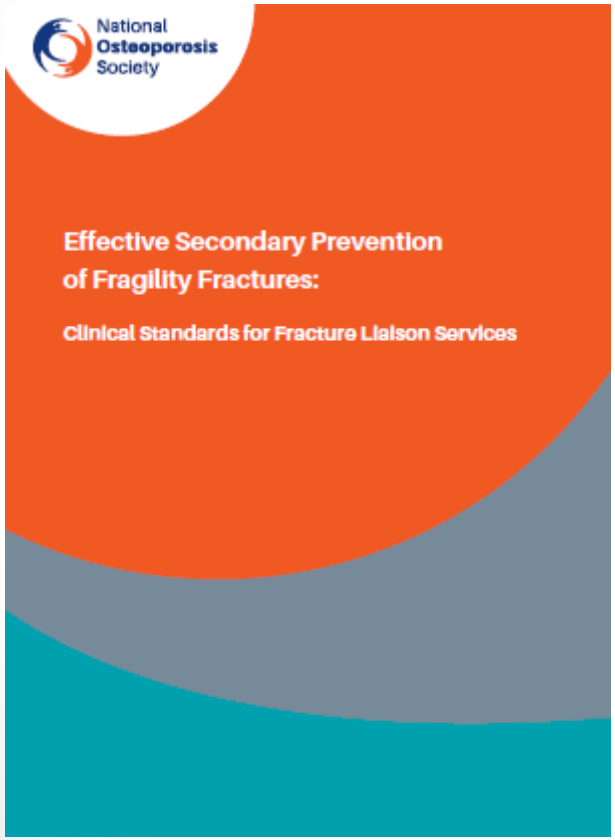
Osteoporosis Canada FLS toolkit 2013

Fracture Liaison Service (FLS)

The Fracture Liaison Service! → **4is**

- *Identify FF*
- *Investigate for bone fragility*
- *Initiate preventive therapy*
- Integrate to multidisciplinary follow-up

Fracture Liaison Service (FLS)



5IQ approach

Identification
Investigation
Information
Intervention and
Integration
Quality

Fracture Liaison Service (FLS)

The first 4 is…

Identification

Investigation

Intervention

Integration

Fracture Liaison Service (FLS)

1st Identify FF

- Patients over 50 years old with fragility fracture
- Pro Active screening (in patient & out patient)
- Emergency departement
- Vertebral Fractures (radiology)

Fracture Liaison Service (FLS)

2nd Investigate for bone fragility

- Bone Mineral Density (BMD)
  - DEXA
- Risk Assessment Tool
  - FRAX (https://www.sheffield.ac.uk/FRAX/tool.aspx)
  - Qfracture (http://www.qfracture.org/index.php)
  - CAROC (https://www.osteoporosis.ca/multimedia/pdf/CAROC.pdf)

FRAX


FRAX ® Outil d'Evaluation des Risques de Fractures
Accueil
Outil de Calcul
Tableau sur papier
FAQ
Références
Français
Outil de Calcul
Veuillez répondre aux questions ci-dessous pour calculer la probabilité de fracture sur 10 ans sans ou avec DMO
Pays: Royaume-Uni
Nom/Identité:
A propos des facteurs de risques
Questionnaire:
1. Âge (entre 40 et 90 ans) ou Date de Naissance
Âge: 64
Date de Naissance: A: M: J:
2. Sexe Masculin Féminin
3. Poids (kg) 57
4. Taille (cm) 165
5. Fracture antérieure Non Oui
6. Parents ayant eu une fracture de la hanche. Non Oui
7. Actuellement Fumeur Non Oui
8. Glucocorticoïdes Non Oui
9. Polyarthrite rhumatoide Non Oui
10. Ostéoporose secondaire Non Oui
11. Acool trois unités par jour ou plus Non Oui
12. DMO du Col Fémoral (g/cm²)
Choisissez BMD
Effacer Calculer
BMI: 20.9
The ten year probability of fracture (%)
sans DMO
Major osteoporotic 24
Hip fracture 5.1
Outil d'impression et d'information
Weight Conversion
Pounds kg
Convert
Height Conversion
Inches cm
Convert
05166423
Individuals with fracture risk assessed since 1st June 2011
www.nos.org.uk
National Osteoporosis Society
Facteurs de Risques
Pour les facteurs de risques cliniques, une réponse par oui ou par non est demandée. Si le champ est laissé blanc, alors une réponse "non" sera supposée. Voir aussi Notes sur les facteurs de risques.
Les facteurs de risques utilisés sont les suivants:

Qfracture

ClinRisk

Welcome to the QFracture®-2016 risk calculator: http://qfracture.org

Reset | Information | Publications | About | Copyright | Contact Us | Algorithm | Software

About you

Age (30-99): 64
Sex: ○ Male ◉ Female
Ethnicity: White or not stated

Clinical information

Smoking status: non-smoker
Alcohol status: none
diabetes: none
Do either of your parents have osteoporosis/hip fracture? ☑
Do you live in a nursing or care home? ☐
Have you had a wrist spine hip or shoulder fracture? ☐
History of falls? ☑
Dementia? ☐
Cancer? ☐
Asthma or COPD? ☐
Heart attack, angina, stroke or TIA ☐
Chronic liver disease? ☐
Chronic kidney disease (stage 4 or 5)? ☐
Parkinson's disease? ☐
Rheumatoid arthritis or SLE? ☐
Malabsorption eg Crohn's disease, ulcerative colitis, coeliac disease, steatorrhea or blind loop syndrome? ☐
Endocrine problems eg thyrotoxocosis, hyperparathyroidism, Cushing's syndrome? ☐
Epilepsy or taking anticonvulsants? ☐
Taking antidepressants? ☐
Taking steroid tablets regularly? ☑
Taking oestrogen only HRT? ☐

Leave blank if unknown

Body mass index

Height (cm): 165
Weight (kg): 57

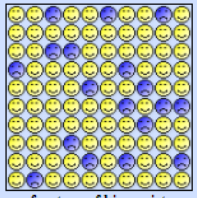
Calculate risk over 10 years. Calculate risk

Your results

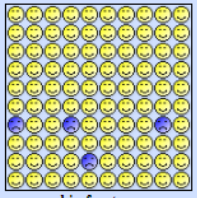
Your risk of having any osteoporotic (i.e. hip, wrist, shoulder or spine) fracture or hip fracture alone within the next 10 years is:

Hip, wrist, shoulder or spine fracture	**18.4%**
Hip fracture	**4.2%**

In other words, in a crowd of 100 people like you, 18 will develop osteoporotic fracture of hip, wrist, shoulder or spine within the next 10 years. Similarly, 4 will develop hip fracture within the next 10 years. This is represented by the smileys below.

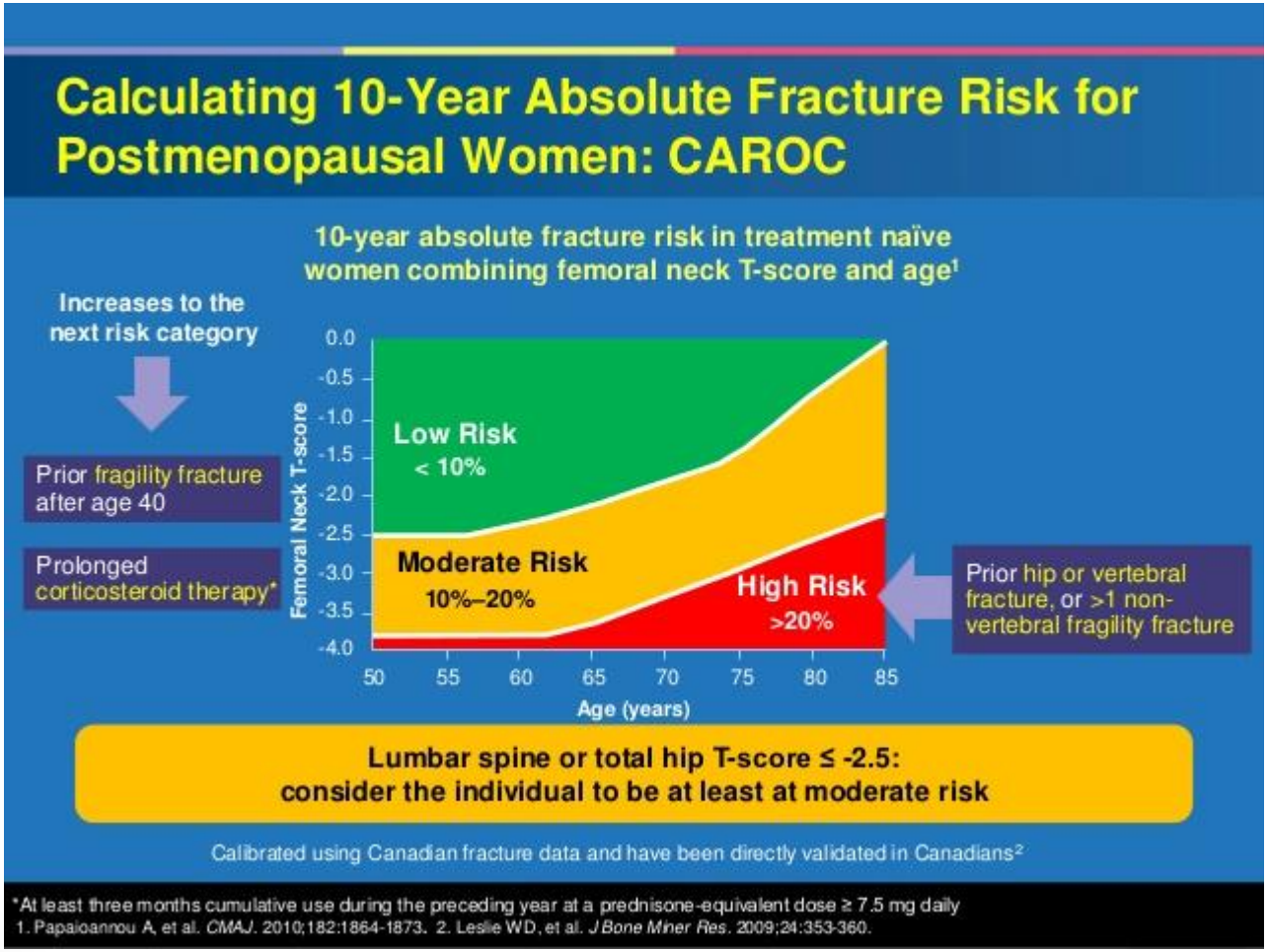


fracture of hip, wrist, shoulder or spine



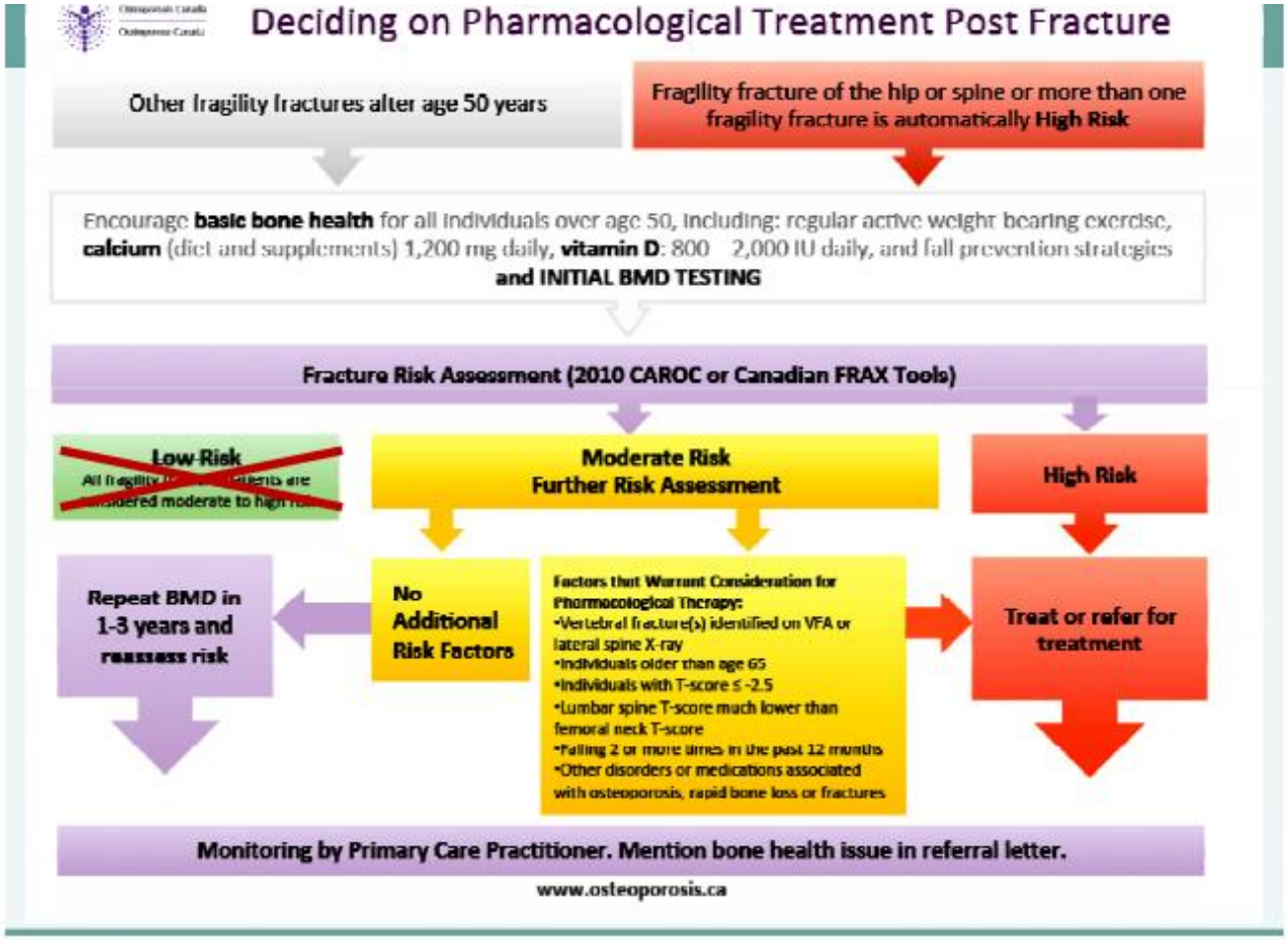
hip fracture

CAROC


Calculating 10-Year Absolute Fracture Risk for Postmenopausal Women: CAROC
10-year absolute fracture risk in treatment naïve women combining femoral neck T-score and age[1]
Increases to the next risk category
Prior fragility fracture after age 40
Prolonged corticosteroid therapy*
Femoral Neck T-score
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
-3.5
-4.0
Low Risk
< 10%
Moderate Risk
10%–20%
High Risk
>20%
50
55
60
65
70
75
80
85
Age (years)
Prior hip or vertebral fracture, or >1 non-vertebral fragility fracture
Lumbar spine or total hip T-score ≤ -2.5:
consider the individual to be at least at moderate risk
Calibrated using Canadian fracture data and have been directly validated in Canadians[2]
*At least three months cumulative use during the preceding year at a prednisone-equivalent dose ≥ 7.5 mg daily
1. Papaioannou A, et al. CMAJ. 2010;182:1864-1873. 2. Leslie WD, et al. J Bone Miner Res. 2009;24:353-360.

Fracture Liaison Service (FLS)

3rd Initiate preventive therapy



Fracture Liaison Service (FLS)

4th Integrate to multidisciplinary follow-up

Monitor

Adherence to treatment

Fall hx

Subsequent fracture

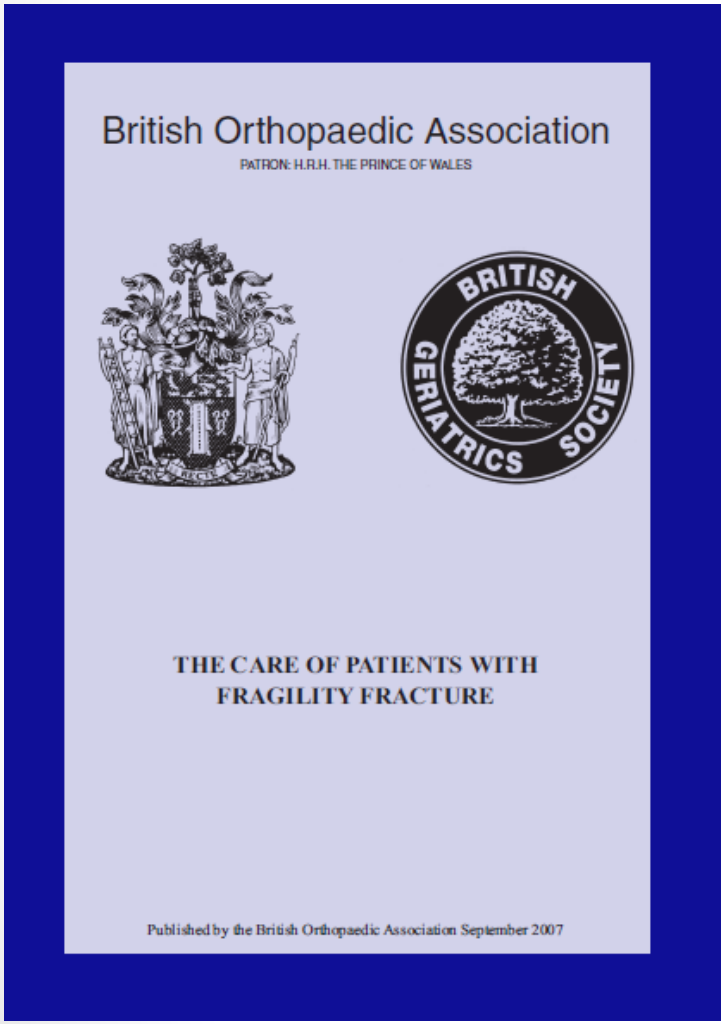
Fracture under treatment (treatment failure)

FLS Essential element

FLS Essential element

An FLS, made up of a committed team of stakeholders, **employs a dedicated coordinator** to act as the link between the patient and the orthopaedic team, the osteoporosis and falls prevention services, and the primary care physician.

FLS Essential element



``A Fracture Liaison Service, **<u>delivered by a Nurse Specialist</u>**, is a proven approach to the identification, assessment and treatment of fracture risk, and this model should be considered in all units.``(page 5)

FLS Essential element

Osteoporosis Canada

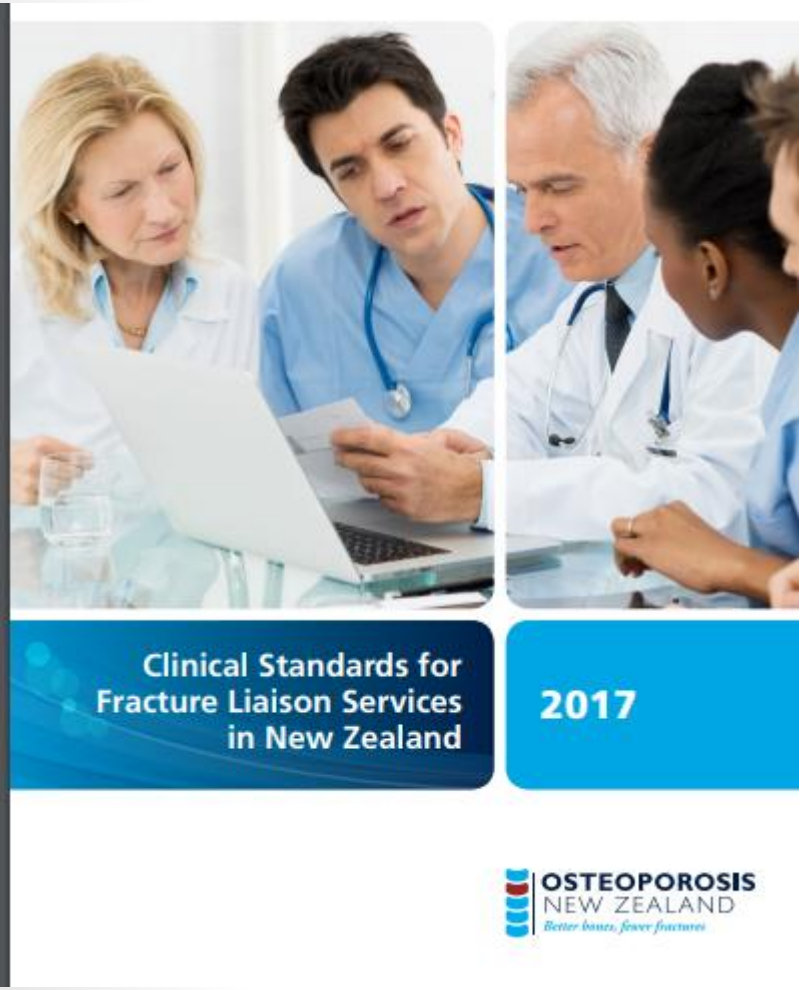
Ostéoporose Canada

1. **<u>A dedicated coordinator</u>** is central to the FLS model of care:

a. exclusively responsible and accountable for all the FLS functions
OR
b. exclusively responsible and accountable for the first FLS function (identification) and for the transfer of the second and/or third FLS functions (investigation and initiation) to a clearly designated osteoporosis expert or osteoporosis specialty team.

https://osteoporosis.ca/wp-content/uploads/Osteoporosis-Canada-Essential-Elements-of-an-FLS.pdf

FLS Essential element



- **<u>Appoint a FLS Coordinator who is typically a Nurse Specialist or Allied Health Professional</u>**. (page 1)

The Role of the Nurse in Osteoporosis Management

- Coordinate multidisciplinary team
- Manage FLS
- Identify, Investigate (risk assessment)
- Educate and counsel patient
- Initiate treatment (creat treatment plan)
- Integrate patient into follow up
- Evaluate adherence

FLS Coordinator

FLS Coordinator

1-Dedicated FLS Coordinator

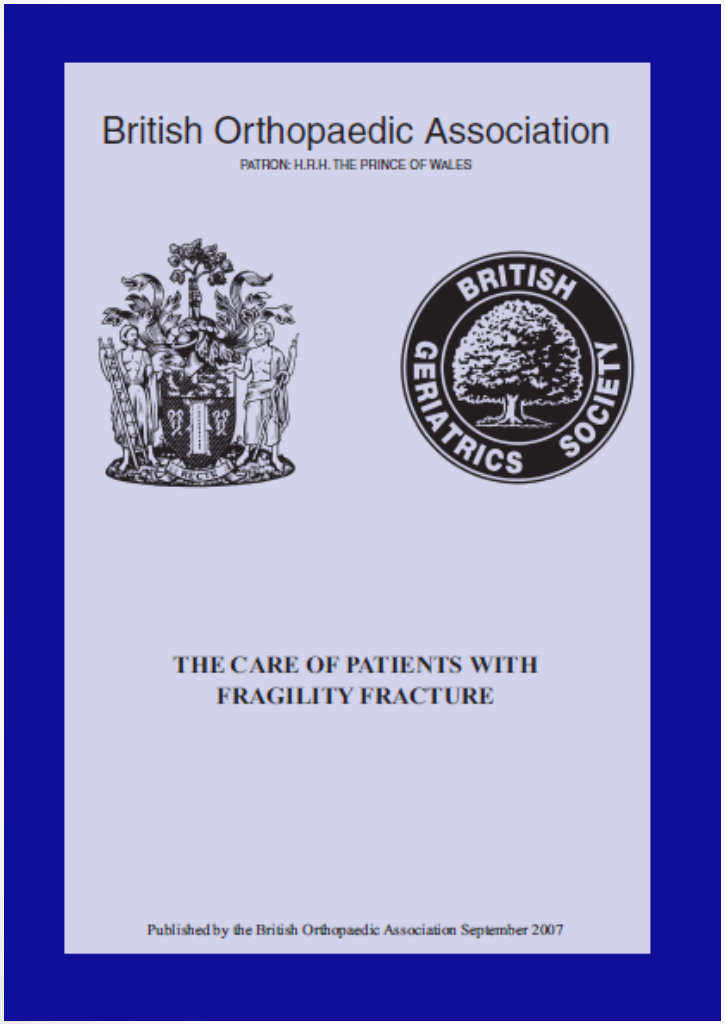
- Nurses
- Allied Health professionnals
- Nurse Practitionners
- Non-clinical personnel

2-Standardized Order Set

- Hospital Staff Nurses

Dedicated FLS Coordinator

Dedicated FLS Coordinator

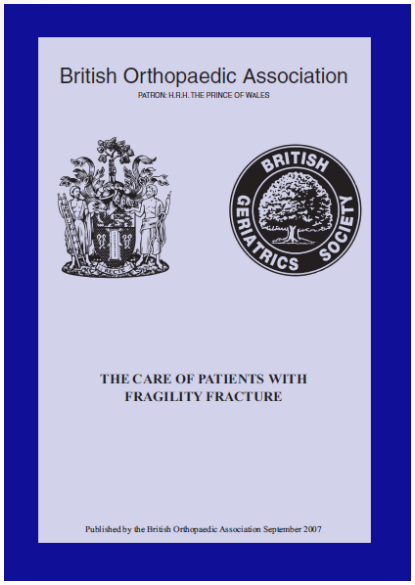


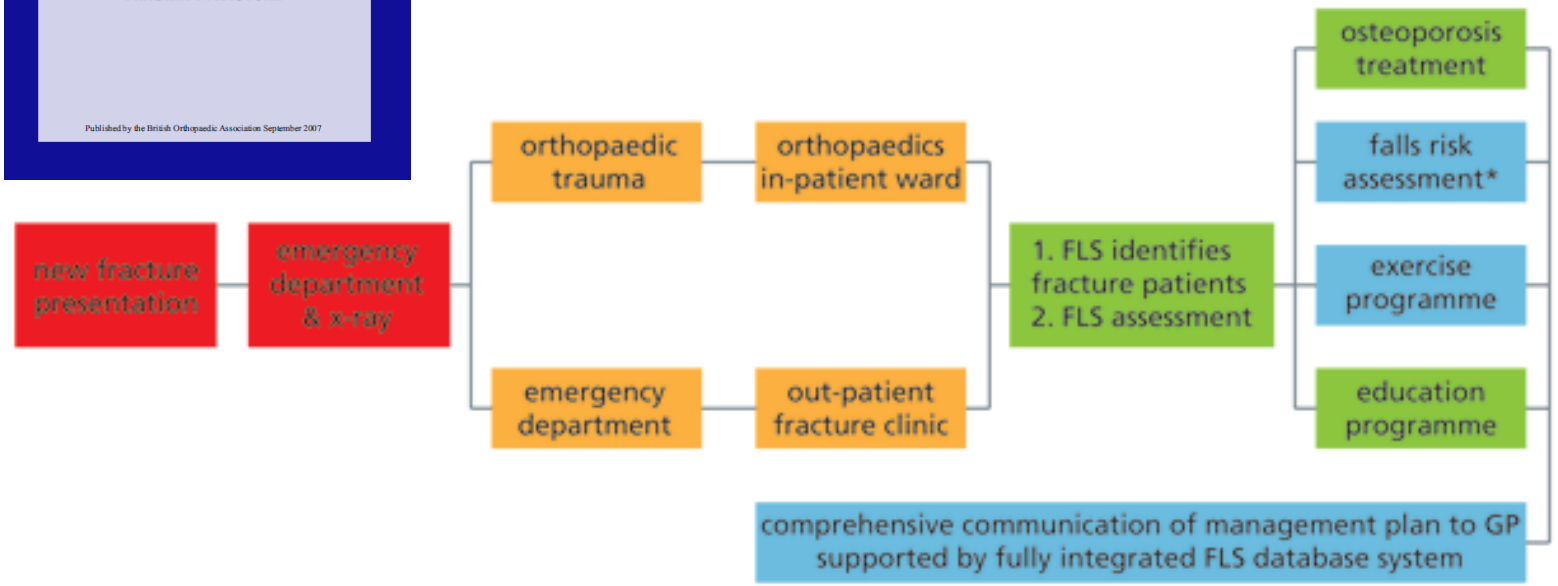
Lead by Nurse Specialist

- Involves Multidisciplinary Team
  - orthopaedic surgeons,
  - geriatricians,
  - nursing staff
  - allied health professionals

http://www.capture-the-fracture.org/fracture-liaison-services

Dedicated FLS Coordinator





http://www.capture-the-fracture.org/fracture-liaison-services

Ontario Osteoporosis Strategy

Effective Initiation of Osteoporosis Diagnosis and Treatment for Patients with a Fragility Fracture in an Orthopaedic Environment

By Earl R. Bogoch, MD, Victoria Elliot-Gibson, MSc, Dorcas E. Beaton, PhD, Sophie A. Jamal, MD, PhD, Robert G. Josse, MD, and Timothy M. Murray, MD

Investigation performed at St. Michael's Hospital, Toronto, Ontario, Canada

The Osteoporosis Exemplary Care Program coordinator

- Designed to overcome systemic and individual barriers
- Offers coordination among the orthopaedic, endocrinology, and nuclear medicine units
- Provides continuum of care
- Based on guidelines for osteoporosis care

Ontario Osteoporosis Strategy

The Osteoporosis Exemplary Care Program coordinator

1- Screening (Monday through Friday),
- all fracture clinic outpatients
- orthopaedic inpatients

2-Consulting
- attending orthopaedic surgeon
- resident

3-Reviewing patient's chart

4-Interviewing patient

5-Confirming enrollment

6-Organizing Bone mineral density testing
- (if one had not been performed in the previous twelve months)

7-Booking Metabolic Bone Disease Clinic appointment

Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM.Effective initiation of osteoporosis diagnosis and treatment for patients with a fragility fracture in an orthopaedic environment.J Bone Joint Surg Am. **2006** Jan;88(1):25-34.

Ontario Osteoporosis Strategy

Inpatients

1-Contacting

- unit pharmacist
- dietician
- orthopaedic resident
  - initiate vitamin-D (800 IU daily)
  - calcium (500 mg twice daily)

2- Organizing antiresorptive therapy

- Metabolic Bone Disease Clinic
- orthopaedic surgeon
- Resident

Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM.Effective initiation of osteoporosis diagnosis and treatment for patients with a fragility fracture in an orthopaedic environment.J Bone Joint Surg Am. **2006** Jan;88(1):25-34.

Ontario Osteoporosis Strategy

Inpatients

If incomplete:

3- Organizing FU

- Metabolic Bone Disease Clinic within two to three months
- coordinator at their outpatient fracture clinic follow-up visit

4-Notifying Family Physician after 6 months

- supplements and any pharmacotherapy that were initiated

Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM.Effective initiation of osteoporosis diagnosis and treatment for patients with a fragility fracture in an orthopaedic environment.J Bone Joint Surg Am. **2006** Jan;88(1):25-34.

Ontario Osteoporosis Strategy

Education

- Orthopaedic residents
  - educational materials (first week rotation)
  - regular contact with the program coordinator

Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM.Effective initiation of osteoporosis diagnosis and treatment for patients with a fragility fracture in an orthopaedic environment.J Bone Joint Surg Am. **2006** Jan;88(1):25-34.

Ontario Osteoporosis Strategy

Evaluation

Initial consultation after confirmation inclusion in the program

Data collection
Gender
Age
Mechanism of injury
Fracture site
Hx diagnosis and treatment of osteoporosis,
Referral pattern
Diagnosis and treatment of osteoporosis

Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM.Effective initiation of osteoporosis diagnosis and treatment for patients with a fragility fracture in an orthopaedic environment.J Bone Joint Surg Am. **2006** Jan;88(1):25-34.

Ontario Osteoporosis Strategy

Baseline questionnaires (outpatients and inpatients voluntary basis)

- hospital visit
- hospital stay
- later at home (mailing it back)

- Hx fractures and other risk factors for osteoporosis
- sociodemographic characteristics
- health beliefs relating to osteoporosis
- Osteoporosis Self-Efficacy Scale*
- Consent implied if the patient completed and returned questionnaires

Follow-up questionnaire (mailed at six months)

- rates of referral to and attendance at the Metabolic Bone Disease Clinic
- patients' knowledge of the BMD results
- compliance with treatment
- New fragility fractures at any site
- health beliefs and self efficacy related to osteoporosis.

*Horan ML, Kim KK, Gendler P, Froman RD, Patel MD. Development and evaluation of the Osteoporosis Self-Efficacy Scale. Res Nurs Health. 1998;21:395-403.

Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM.Effective initiation of osteoporosis diagnosis and treatment for patients with a fragility fracture in an orthopaedic environment.J Bone Joint Surg Am. **2006** Jan;88(1):25-34.

Ontario Osteoporosis Strategy

Coordinator

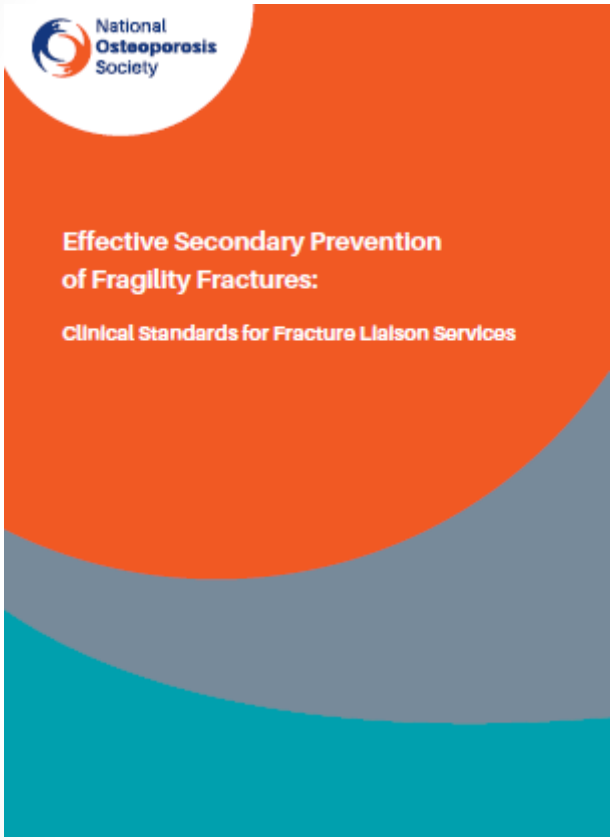
Further intervention initiated (identified needs in questionnaire)

Appointment rescheduling

Encouraging patient to pursue osteoporosis investigation and treatment

Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM.Effective initiation of osteoporosis diagnosis and treatment for patients with a fragility fracture in an orthopaedic environment.J Bone Joint Surg Am. **2006** Jan;88(1):25-34.

National Osteoporosis Society (NOS) FLS Standards



FLS Coordinators

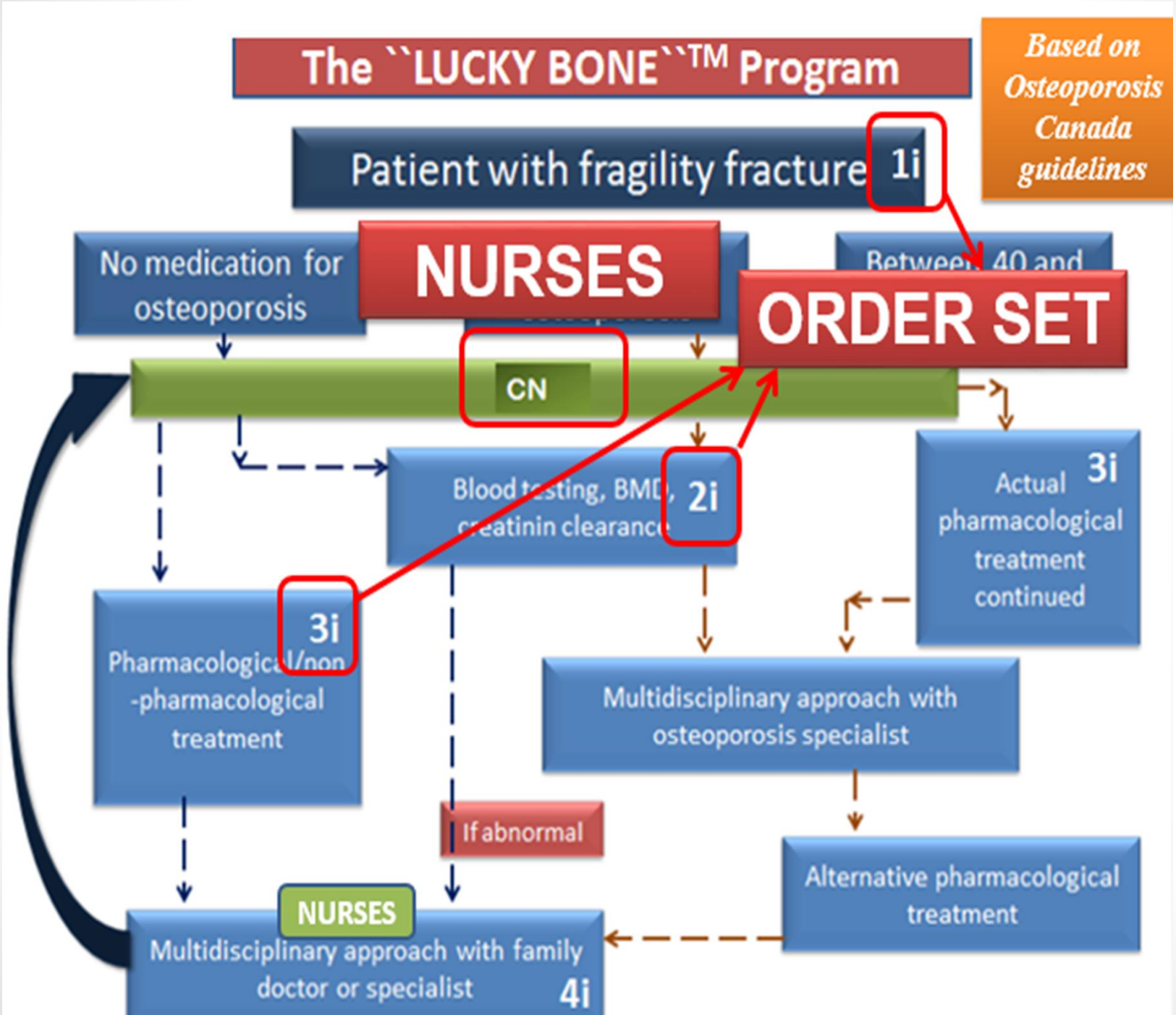
Effect the 5IQ **approach**

Identification
Investigation
Information
Intervention and Integration
Quality

``Staffing levels will vary depending on the expected number of fractures being reviewed by the FLS. However, **single practitioner services are discouraged due to issues with continuity of service that arise during leave.**`` (p.36)

https://staging.nos.org.uk/media/1776/clinical-standards-report.pdf

Standardized Order Set


The ``LUCKY BONE``™ Program
Based on Osteoporosis Canada guidelines
Patient with fragility fracture
1i
No medication for osteoporosis
NURSES
ORDER SET
CN
Blood testing, BMD, creatinin clearance
2i
Actual pharmacological treatment continued
3i
Pharmacological/non-pharmacological treatment
3i
Multidisciplinary approach with osteoporosis specialist
If abnormal
Alternative pharmacological treatment
NURSES
Multidisciplinary approach with family doctor or specialist
4i

Agreement between physicians' and nurses' clinical decisions for the management of the fracture liaison service (4iFLS): the Lucky Bone™ *program*

A. Senay, J. Delisle, J. P. Raynauld, S. N. Morin & J. C. Fernandes

Osteoporosis International
With other metabolic bone diseases

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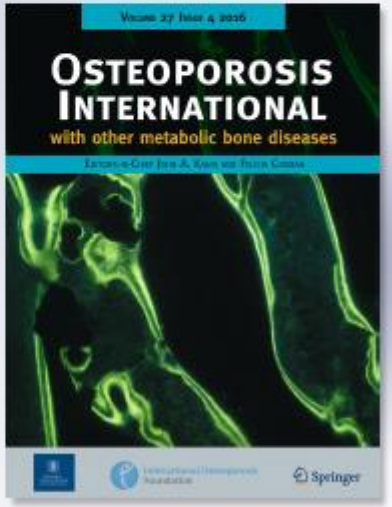
Volume 27
Number 4

Osteoporos Int (2016) 27:1569-1576
DOI 10.1007/s00198-015-3413-6



Springer

Order Set

- 1st ``i`` (identification)
  - Emergency (ED) and out patient clinic (OC) nurses

- 2nd and 3rd ``i`` (investigation and initiation of treatment)
  - Medical Day Unit (MDTU) nurses

Order Set

Initiate treatment

Calcium 500 mg po BID

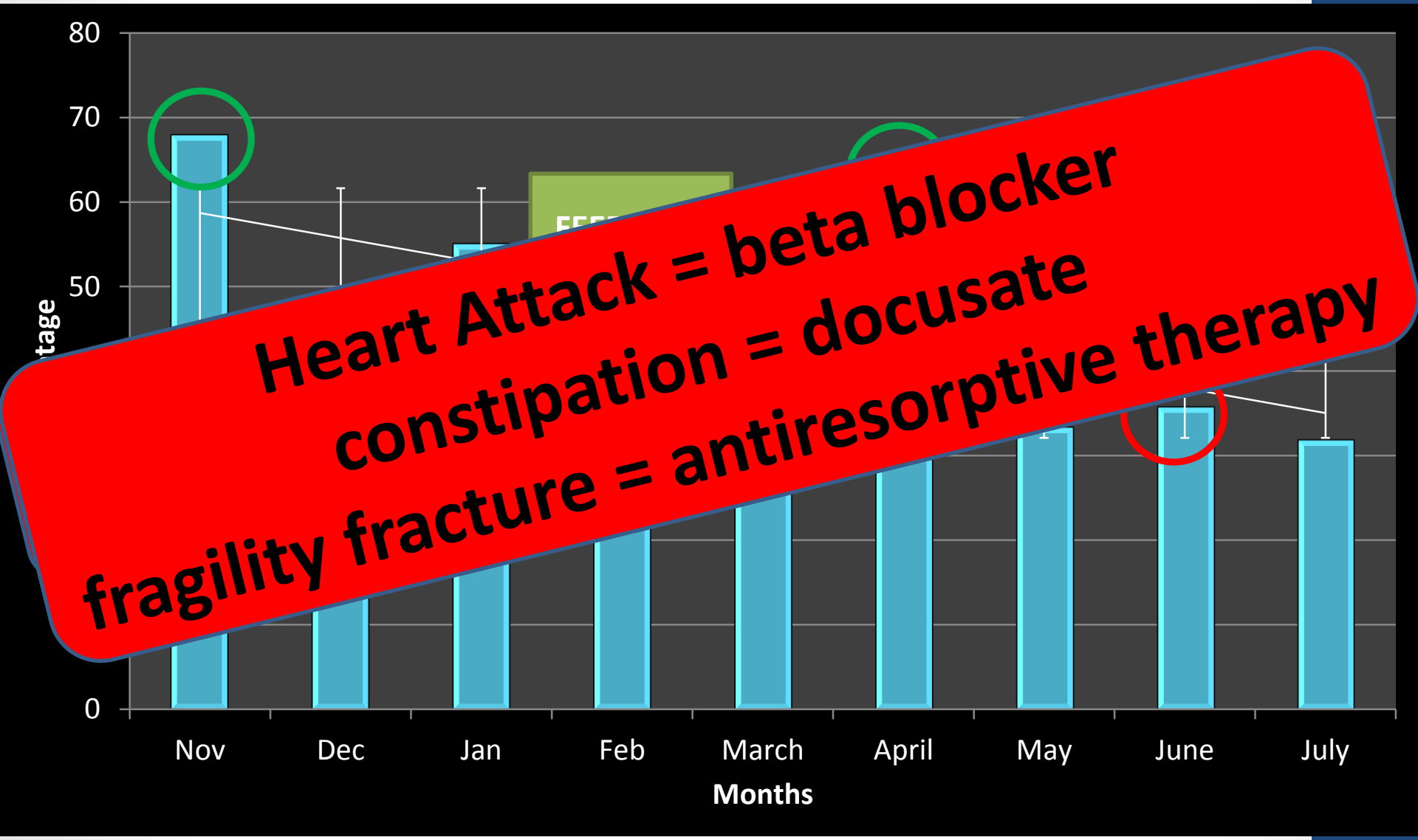
Vitamin D 10 000 iu po 1 per week

+

Oral bisphosphonates

Results

Rates of FF identification per month over 9 months



Order Set

Order set applied → 70%

Order set not applied → 30% (standard care)

FLS studies

- 60-80% ID rates with dedicated manager

Order Set

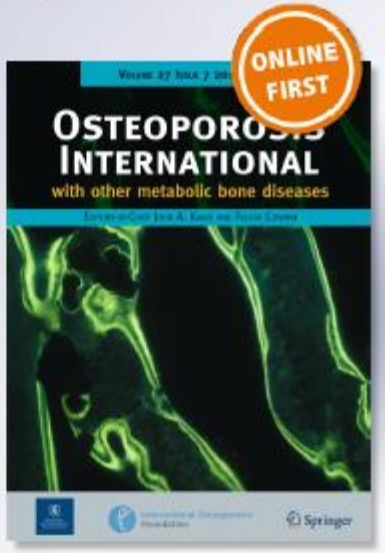
The impact of a standardized order set for the management of non-hip fragility fractures in a Fracture Liaison Service

A. Senay, J. Delisle, M. Giroux, G. Y. Laflamme, S. Leduc, M. Malo, H. Nguyen, P. Ranger & J. C. Fernandes

Osteoporosis International
With other metabolic bone diseases

ISSN 0937-941X

Osteoporos Int
DOI 10.1007/s00198-016-3669-5



Springer

routine practice

delines of care


KAISER PERMANENTE®

KAISER PERMANENTE®

- IT team= Identify patients at risk!!!
- Just in time consultation
  - Offered on site after patient's DXA
  - Consults range from 20-40 minutes
  - Based on DXA results,tech sends patient **to the NP/PA**
    - Osteoporosis by T-score
    - Osteopenia high FRAX
    - Fragility fracture
    - High risk group

KAISER PERMANENTE®

Osteoporos Int (2011) 22 (Suppl 3):S457–S460
DOI 10.1007/s00198-011-1712-0

OPINION PAPER

Fracture prevention in Kaiser Permanente Southern California

R. Dell

Abstract
The Kaiser Permanente Healthy Bones Program has used a systematic approach to address the osteoporosis/fracture care gaps. The article discusses the ten-step processes that utilize information technology and care managers to identify, risk stratify, treat, and then track our patients with care gaps. This program has led to 40+% reduction in the expected number of hip fractures in 2009 that we attribute to the increase in DXA screening followed by appropriate osteoporosis treatment.

Challenges & Solutions!

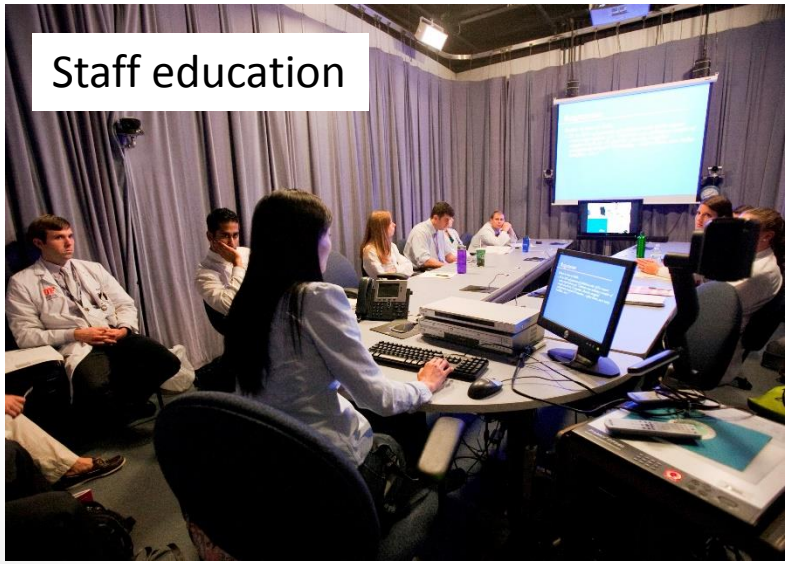
Challenge

1 st i - ESSENTIAL FLS SUCCESS!!

Identification at risk patients

Solution

- IT List- Pop Up
- Hospital Policy
- Standardized Algorithm
- Involved radiology department (vertebral fractures)



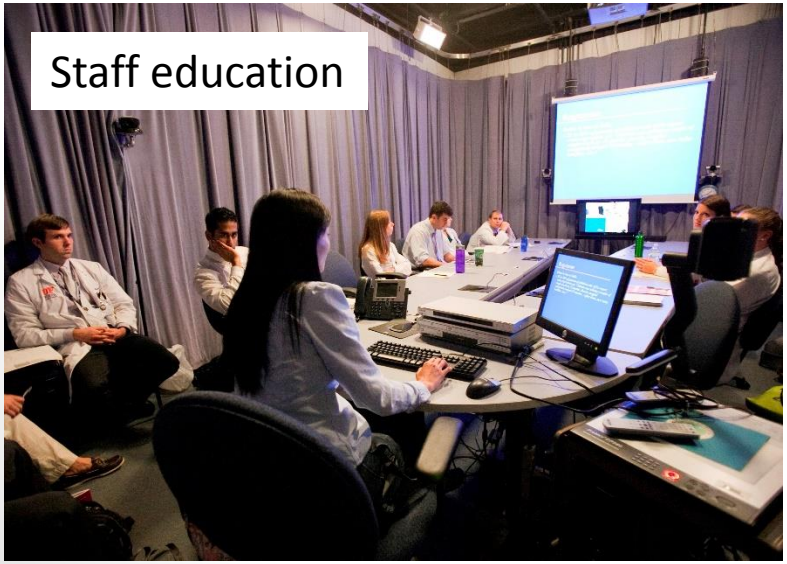
Challenge

1 st i - ESSENTIAL FLS SUCCESS!!

Patients’ refusal

Solutions

Staff education



Patient's education

Challenge

2nd i Challenges

Mis-interpretation of FRAX

- Over and under treating based on fracture risk

Basing risk on T score alone!

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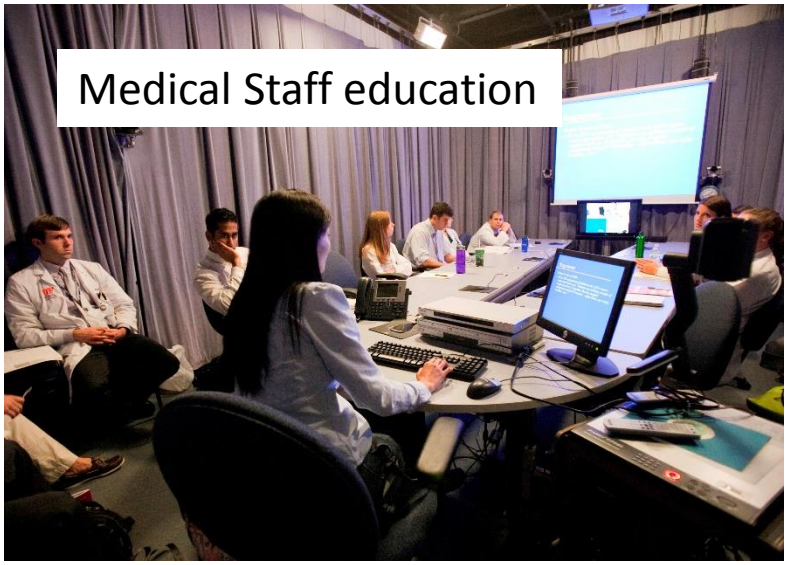
Lisa Voss PA-C, MHS, CCD
Laura Frontiero FNP-C, MSN, CCD
FLS Care Coordination. Interdisciplinary Symposium on Osteoporosis (ISO14) in New Orleans, Louisiana, April 23-26, 2014.

Solutions



Challenges

3rd i Challenges

Initiation of treatment

- Orthopaedist responsability (they don't think so)
- Primary care physician often unaware of fracture
- Ignoring osteoporosis (DEXA-osteopenia)
- Taking patients off meds prematurely (fear Severe side effects)
- Not trying alternative therapy options
- Adherence to treatment

Lisa Voss PA-C, MHS, CCD
Laura Frontiero FNP-C, MSN, CCD
FLS Care Coordination. Interdisciplinary Symposium on Osteoporosis (ISO14) in New Orleans, Louisiana, April 23-26, 2014.

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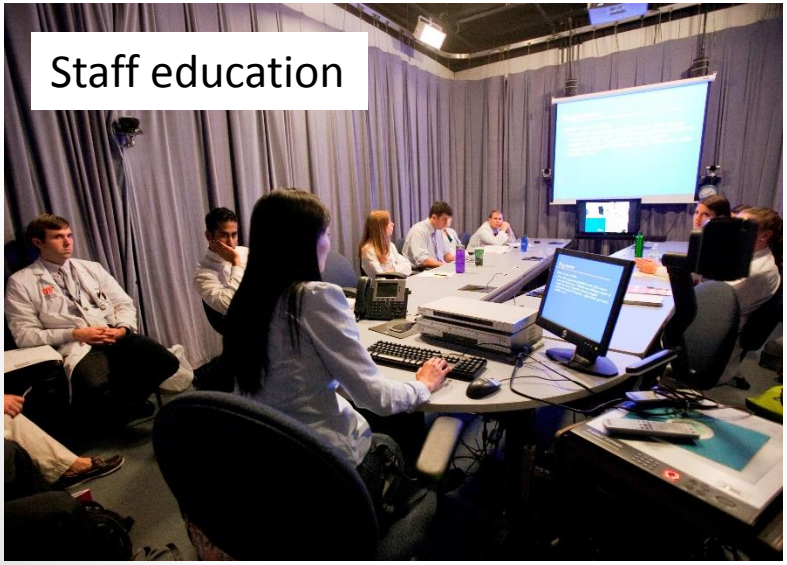
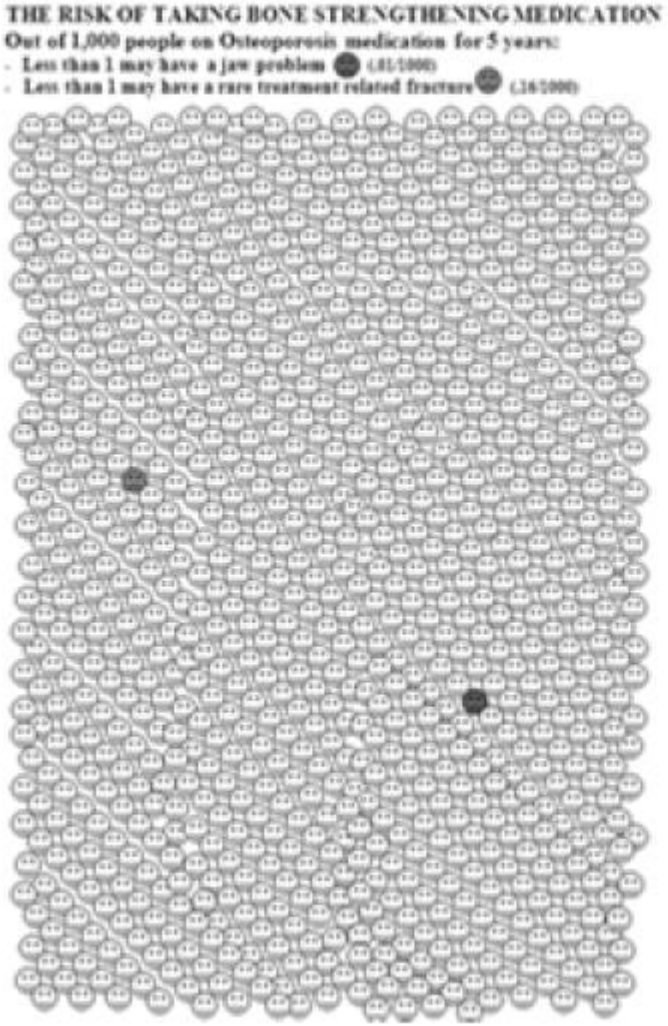
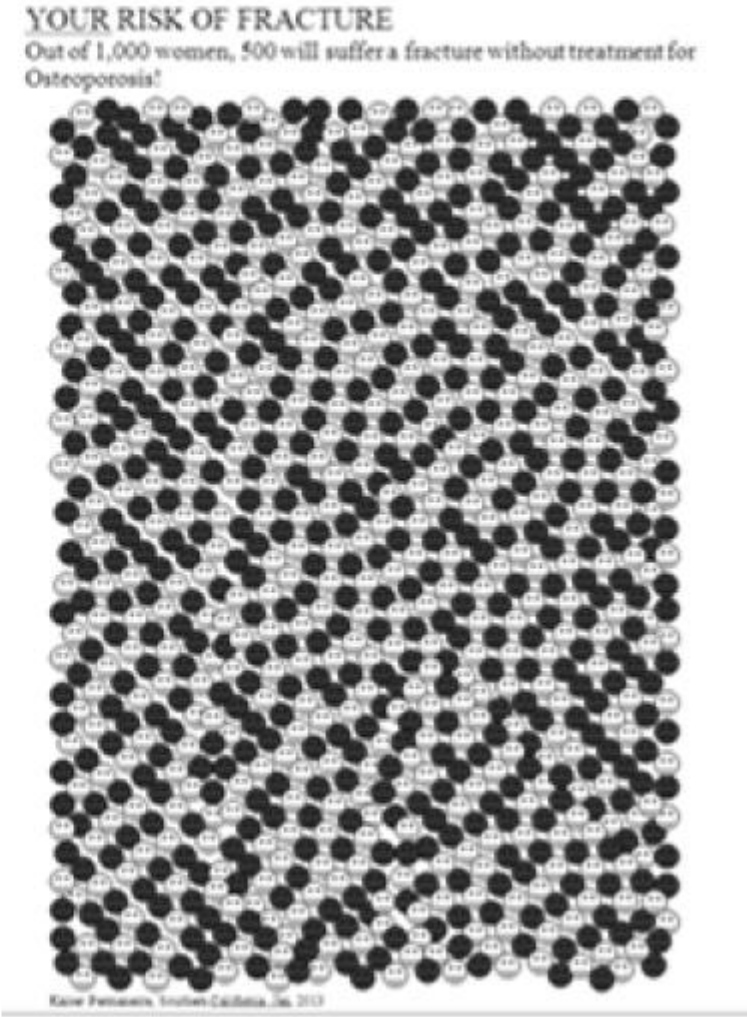
Solutions



Solutions





Lisa Voss PA-C, MHS, CCD
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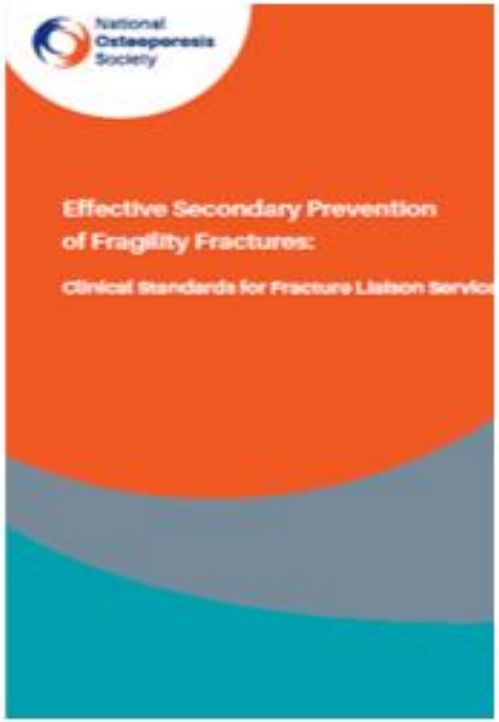
Afterwards….

EVALUATE your FLS

Evaluate….

NOS Standards

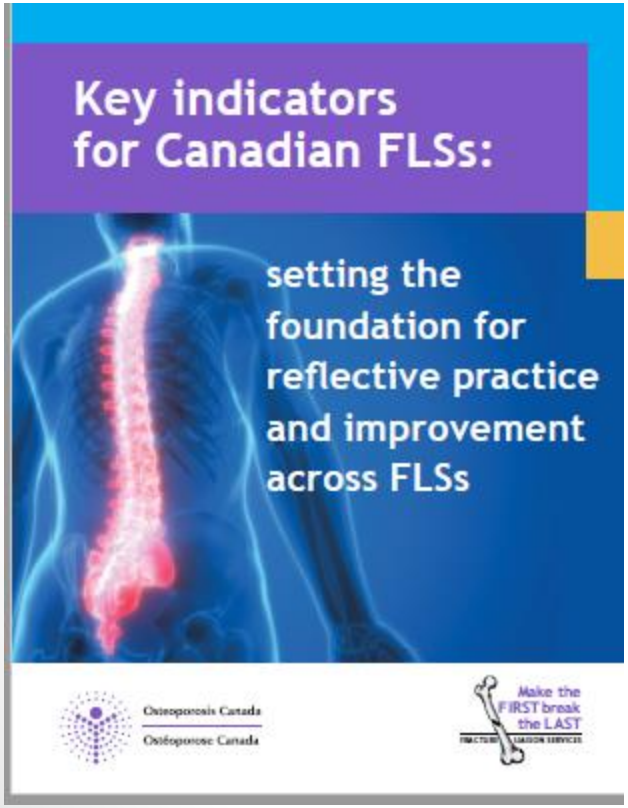


	CRITERIA	RATIONALE	MEASURES	OUTCOMES
	Integration			
6	Management plans will be patient-centred and integrated between primary and secondary care.	Effective communication is essential to ensure that long-term management is achieved and that patients are supported to engage with recommended interventions.	Measure of communication including % of patients copied in to FLS letters.	Patient feels supported. Issues with treatment compliance and adherence are identified promptly. Adherence to treatments is improved leading to greater patient benefit.
7	Patients who are recommended drug therapy to reduce risk of fracture will be reviewed within 4 months of initiation to ensure appropriate treatment has been started, and every 12 months to monitor adherence with the treatment plan.	Treatments must be taken consistently and appropriately over many years to be effective. Follow-up allows early identification of issues (side effects, compliance) with prescribed medications, reinforces need to take treatments and supports long-term concordance.	% of patients recommended drug therapy who have initiated treatment by 4 months following fracture. % of patients on treatment who have been reviewed within the last 12 months.	
	Quality			
8	Core clinical data from patients identified by the FLS will be recorded on a database. Regular audit and patient experience measures will be performed and the FLS will participate in any national audits undertaken.	Data recorded will allow the FLS to audit and improve the service they provide ensuring that high standards are met and maintained. Initial data will provide a baseline from which improvements can be assessed.	Date of last audit against FLS standards. Date of last patient satisfaction survey.	Excellent quality of care is provided and best practice is shared.
9	The FLS team will have appropriate competencies in secondary fracture prevention and will maintain relevant Continued Professional Development (CPD).	All staff need appropriate knowledge, skills and experience to fulfil their role. Engagement with relevant CPD activities ensures that these are up to date.	Review of competencies and training needs in annual appraisals. Assessment of CPD attained.	
10	The FLS should engage in a regular peer review process of quality assurance.	Clinical peer review facilitates quality standard assurance, equitable access to services, and provides a means of benchmarking and sharing best practice.	Date of last peer review and progress against an agreed action plan.	

https://staging.nos.org.uk/media/1776/clinical-standards-report.pdf

Evaluate….

PDSA (Plan-Do-Study Act): IOF, NOS, OC



Core FLS indicators (essential)

Overview of core FLS indicators

	Numerator	Denominator		Quality indicator
First i	A Number of FF* pts.* identified/ enrolled by FLS program:___	B Estimate of number of FF's in catchment area:___	=	Indicator for identification (first i): A / B X 100 = %
Second i	C Number of risk assessments completed:___ # Low:___ # Moderate:___ D # High:___	A Number of FF pts. identified/ enrolled by FLS program:___	=	Indicator for investigation (second i): C / A X 100 = %
Third i	E Number of HIGH risk pts. initiating medication:___	D Number of HIGH risk patients:___	=	Indicator for initiation of treatment (third i): E / D X 100 = %

Making the FIRST break the LAST is an achievable goal through the widespread implementation of FLS

PLEASE NOTE: The numerators and denominators above MUST comply with the full definitions as described further in this document. Some numerators and denominators may vary depending on FLS type, i.e. inpatient-only FLS, outpatient-only FLS or combined inpatient/outpatient FLS.

* *FF stands for "fragility fracture". Pts stands for patients.*

Where do we start???

Capture the Fracture®

- A global flagship programme by the International Osteoporosis Foundation (IOF)
- Launched in 2012
- Mission: facilitating the implementation of FLS to prevent secondary fractures.

Key Aims

Be the global voice

Drive national/international policy

Ensure quality

Provide support for FLS implementation, getting started & improving

Best Practice Framework- health care quality

Aim:

1. Set the standard for FLS
2. Guidance
3. Benchmarking and Quality improvement

Akesson OI 2013

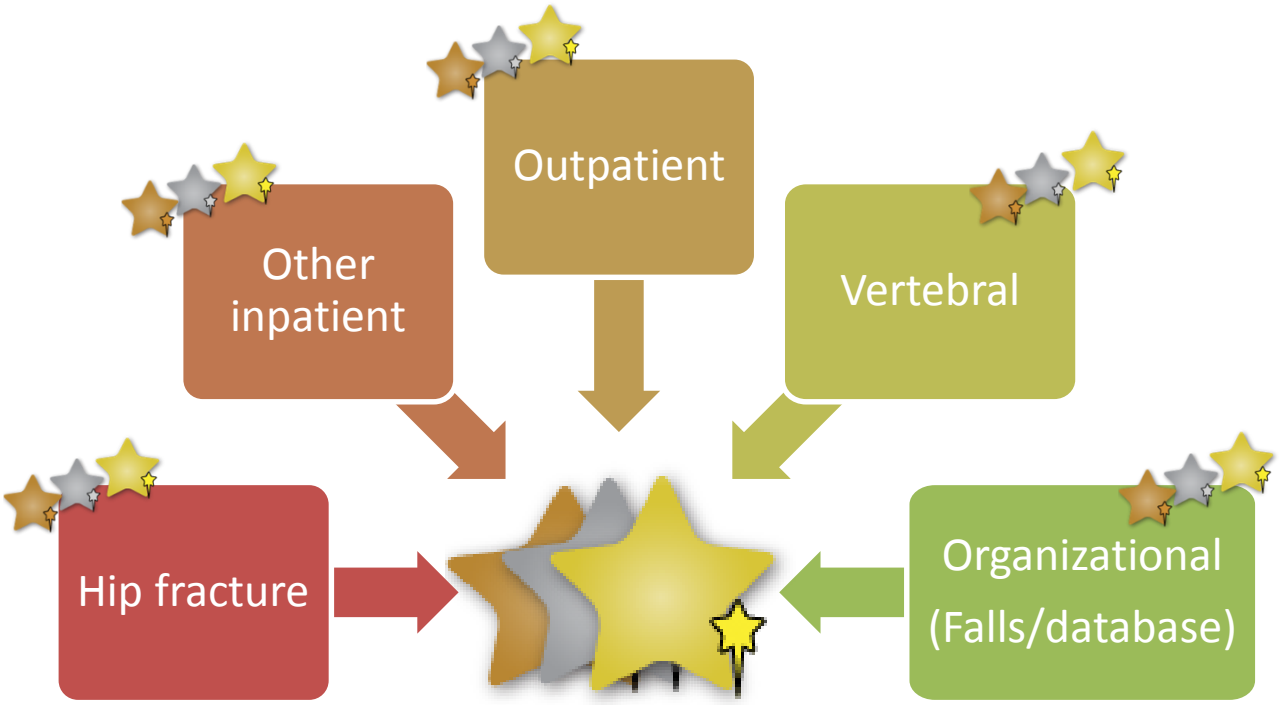
13 Criteria and Standards

1. Patient Identification
2. Patient Evaluation
3. Post Fracture Assessment Timing
4. Vertebral Fracture (VF) ID
5. Assessment Guidelines
6. Secondary Causes of OP
7. Falls Prevention Services
8. Multifaceted Assessment
9. Medication Initiation
10. Medication Review
11. Communication Strategy
12. Long-term Management
13. Database

Standard 1 definition:
Fracture patients are identified to enable delivery of secondary fracture prevention

Standard	Bronze	Silver	Gold
Patient Identification	Patients identified, *not* tracked	Patients identified, *are* tracked	Patients identified, tracked & *independently reviewed*

SCORING: 5 domains



Running an FLS?
Join the Capture the Fracture® Programme

Why join?

- Showcase your achievements
- Learn from the BPF to improve your service
- Get international recognition with a Gold, Silver, or Bronze star
- Be part of a global invitiative to prevent secondary fractures

Who can participate?

- Coordinator-based models of care
- All type of facilities
- At any stage in development
- Any size worldwide

The Process

Step 1

FLS submits online application

Step 2

FLS marked in green on the map while being reviewed

Step 3

BPF achievement level assigned

Step 4

FLS is scored and recognized on the map

https://youtu.be/gpAAvvukjQw

247 FLS, 37 countries, 6 continents

Take home message

It doesn't matter how you get there; Just get there!

-Scottie Somers

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Driven by **science.**

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Acknowledgements

On behalf of IOF and the CTF steering committee, we thank you for your participation in this webinar.

If you have any additional questions, comments or feedback please email capturethefracture@iofbonehealth.org