

## Osteoporosis Canada FLS Registry Submission Form

### Instructions

1. Please only submit one form per FLS site/hospital.
2. Ensure you've answered all questions (unless you are instructed to skip) and provide further details where requested. Incomplete submissions will be returned and will delay processing of your submission.
3. Email completed submissions to [FLSRegistry@osteoporosis.ca](mailto:FLSRegistry@osteoporosis.ca). This email accepts completed submission forms only. Any questions must be sent to Katie Cvitkovitch, FLS Manager at [kcvitkovitch@osteoporosis.ca](mailto:kcvitkovitch@osteoporosis.ca).

Save the form to your computer and then fill it out. Do not fill out the form online. Persons with an older version of Adobe Reader (ie older than Adobe Reader XI) may encounter difficulties saving the form, and are encouraged to download a newer version, which is available for free online.

Date:	
Name of submitter:	
Email address:	
Telephone number:	
Name of your FLS:	
FLS Mailing Address:	
Name/email of FLS Coordinator:	
Name/email of FLS Medical Lead:	
Geographic region served by your FLS:	
Name and location of the hospital and/or health district where your FLS is located (whichever is most applicable):	
Number of hip fractures admitted annually to your hospital and/or health district, as per the location of your FLS (please specify year of the data):	

1. When did your FLS first start assessing/managing fracture patients (month/year)?
2. How many patients did your FLS identify/manage last year (estimate for this year if you are a new FLS)?

The above is:

- A measured outcome  
 A projection, based on:

3. Are the majority of patients enrolled in your FLS a result of:

A. Referrals received from one of the fracture patient's clinicians  
(e.g. patient's own orthopaedic surgeon, family physician, emergency room nurse/physician, OPD nurse)

OR

B. Pro-active case-finding of fracture patients directly from:

Hospital's orthopaedic department

Inpatient only

Outpatient only

Both inpatient and outpatient

Administrative database (please describe):

Other (please describe):

#### Eligible patients

4. How does your FLS define "fragility fracture"? (please describe):

Our FLS does not distinguish fractures as fragility or not (all fractures, traumatic or fragility, are enrolled).

5. Fracture types included and/or fracture types excluded.

For spine fractures, please specify clinical (i.e. presenting symptomatically) or radiologic (i.e. incidental finding on x-rays done for other purposes, e.g. chest x-rays) or both clinical and radiologic.

a. Fracture types included, (please list):

AND/OR

b. Fracture types excluded, (please list):

6. Age criteria (e.g. > 50 yo):

7. Sex criteria (e.g. female only):

8. Is your FLS restricted to treatment naïve patients?  Yes  No

Comments:

9. Are there any other exclusion criteria? (please list):

FLS staff

10. Who are the members of your FLS team?

List roles below (e.g. FLS coordinator, clerical assistant, medical lead, osteoporosis specialists, etc.)

Role/position	Main responsibilities	Number of persons doing this role/position

11. In your FLS, who coordinates the osteoporosis care for fracture patients?

A dedicated FLS coordinator who is allocated exclusively to the FLS functions. Please specify the number of full time equivalents (FTE):

Please describe any non-FLS duties of the FLS coordinator:

The FLS functions are shared among existing hospital personnel (please describe):

Other (please describe):

12. What is the background of the FLS coordinator(s):

- Nurse practitioner
- Registered practical nurse (RPN) / Licensed practical nurse (LPN)
- Registered nurse
- Other, please specify:
- Our FLS does not have a dedicated FLS coordinator

Fracture patient identification directly from the orthopaedic inpatient ward

13. Does your FLS do pro-active case finding of fracture patients admitted to the hospital's orthopaedic inpatient ward?  Yes  No

*If no, skip questions 14-16 and proceed to question 17.*

14. From the patients admitted to the orthopaedic inpatient ward, your FLS pro-actively identifies:

- Hip fractures only
- All of the fracture types as indicated in question 5
- Other, please list:

15. Click [the single most common mechanism for identifying hip fracture patients enrolled in your FLS](#)

The dedicated FLS coordinator identifies the hip fracture patients admitted to the orthopaedic inpatient ward (click the most common option only)

in-person on the orthopaedic ward

when the hip fracture patients are seen in follow-up in the outpatient orthopaedic clinic

working from an administrative database. Please describe:

Referral to the FLS coordinator. Please specify who is responsible for initiating these referrals:

Referral to the osteoporosis specialist/clinic. Please specify who is responsible for initiating these referrals:

Physician working for the Osteoporosis/Metabolic Bone Disease Clinic identifies admitted hip fracture patients through frequent visits to the orthopaedic inpatient ward or through an administrative database. Please provide details:

Inpatient ward clerk through a standardized order set referring the patient automatically and directly to the FLS coordinator or a pre-determined osteoporosis expert or osteoporosis specialty team. Please describe the process and provide a copy of the standardized order set.

Surgical/orthopaedic nurses working on the orthopaedic inpatient ward are all responsible for the identification of the hip fracture patients. Please describe the process:

Other (please describe):

16. How many hip fracture patients did your FLS enroll last year (or estimated for this year if you are a new program)?

The above is:

A measured outcome

A projection, based on:

Fracture patient identification directly from the orthopaedic outpatient clinics

17. Does your FLS do pro-active case finding of fracture patients seen in the hospital's outpatient orthopaedic/fracture clinics? Yes No

*If no, skip questions 18-22 and proceed to question 23.*

18. How many half day orthopaedic/fracture outpatient clinics are held at your hospital in a typical week?

19. Your FLS does pro-active case finding of fracture patients for:

ALL of the outpatient orthopaedic/fracture clinics at your hospital

Some but not all of the outpatient orthopaedic/fracture clinics at your hospital. Please indicate how many half day clinics are covered by your FLS:

20. From the patients seen in the orthopaedic outpatient clinics, your FLS pro-actively identifies:

All the fracture types as indicated in question 5

Some but not all of the fracture types as indicated in question 5. Please specify:

21. In your FLS, who identifies the orthopaedic outpatient clinic fracture patients? Choose the single most common source of fracture patients enrolled in your FLS from orthopaedic outpatient clinics.

The dedicated FLS coordinator himself/herself (select one only)

in person when they see the patient in the orthopaedic clinics

through an administrative database. Please describe the process:

Referral to the FLS coordinator. Please specify who is responsible for initiating these referrals:

Referral to an osteoporosis specialist/clinic. Please specify who is responsible for initiating these referrals:

The identification of fracture patients from orthopaedic outpatient clinics is shared by existing hospital personnel. Please specify:

Other (please describe):

22. Please describe the identification process for the outpatient orthopaedic clinic fracture patients in more detail.

Fracture patients identified directly from an administrative database

23. Does your FLS do pro-active case finding of fracture patients directly from an administrative database?

Yes  No

*If no, skip questions 24-27 and proceed to question 28.*

24. Please describe the administrative database used:

25. Who is responsible for the initial identification of the fracture patients from the database?

- The dedicated FLS coordinator  
 The orthopaedic surgeon  
 The Osteoporosis/Metabolic Bone Disease specialist  
 Other (please describe):

26. Who is responsible for the first contact with the fracture patients?

- The dedicated FLS coordinator  
 The orthopaedic surgeon  
 The Osteoporosis/Metabolic Bone Disease specialist  
 Other (please describe):

27. Please describe the process of identification/capture of patients in more detail:

Pro-active case finding of non-spine fracture patients in locations other than orthopaedic services or an administrative database

28. Does your FLS do pro-active case finding of non-spine fracture patients from a location other than orthopaedic services or an administrative database?  Yes  No

*If no, skip questions 29-31 and proceed to question 32.*

29. Please describe the location/setting where pro-active case finding of non-spine fracture patients occurs:

30. In your FLS, who identifies the fracture patients? Choose the most common option only.

The dedicated FLS coordinator himself/herself in person at the medical clinic. Please specify the location/type of clinic:

Referral to the FLS coordinator. Please specify who is responsible for initiating these referrals:

Referral to the Osteoporosis/Metabolic Bone Disease specialist. Please specify who is responsible for initiating these referrals:

Other (please describe):

31. Please describe the case-finding process of your FLS in detail:

#### Vertebral fractures

32. Does your FLS assess/manage vertebral fracture patients? Yes No

*If no, skip question 33 and proceed to question 34.*

33. How does your FLS identify vertebral fracture patients? Click all that apply. (This question carries on to the next page)

Referral of vertebral fracture patients to the FLS coordinator. Please specify who is responsible for initiating these referrals:

Referral of vertebral fracture patients to the Osteoporosis/Metabolic Bone Disease Clinic. Please specify who is responsible for initiating these referrals:

Spine X-rays are routinely done for all fragility fracture patients seen by our FLS to determine if they have prevalent vertebral fractures

VFA (Vertebral Fracture Assessment) is part of the routine BMD completed for all fracture patients assessed/managed by our FLS

New clinical/symptomatic vertebral fracture patients are pro-actively identified when they present in the following departments of our hospital (click all that apply):

Emergency department (please describe):

Inpatient orthopaedic ward (please describe):

Outpatient orthopaedic clinic (please describe):

Inpatient medical ward (please describe):

Other (please describe):

The FLS coordinator pro-actively screens ALL of the diagnostic imaging reports that are issued by the hospital's Diagnostic Imaging Department (irrespective of who requested the diagnostic imaging study). Please describe the process in detail:

Please indicate which of the following diagnostic imaging reports are screened by your FLS coordinator:

Thoracic spine X-rays

Lumbar spine X-rays

Chest X-rays

VFA as part of the BMD (our hospital's BMD unit does not have VFA capability )

CT spine (our hospital does not have CT scanner )

CT chest/abdomen (our hospital does not have CT scanner )

MRI spine (our hospital does not have MRI )

MRI chest/abdomen (our hospital does not have MRI )

Other method (please describe):

#### Interventions within the FLS

34. In your FLS, are all identified fracture patients referred automatically and directly to a pre-determined Osteoporosis/Metabolic Bone Disease Clinic or osteoporosis specialist for their investigations and osteoporosis management?  No  Yes

Please describe the process:

35. In your FLS, who orders the BMD test? Choose the most common option only.

Nurse practitioner FLS coordinator

Registered nurse FLS coordinator

Osteoporosis/Metabolic Bone Disease specialist (may include family physician working for the pre-determined Osteoporosis/Metabolic Bone Disease Clinic)

Orthopaedic surgeon, coordinated by the FLS coordinator

Orthopaedic surgeon, at his/her discretion

Patient's own family physician or primary care nurse practitioner

Other (please describe):

Our FLS does not order BMDs



36. In your FLS, are spine X-rays or VFA (Vertebral Fracture Assessment through BMD) routinely done as part of the fracture risk assessment? Yes No

37. In your FLS, what method is used to determine which fragility fracture patients need a first line prescription osteoporosis medication?

- All captured fragility fracture patients are recommended for osteoporosis treatment.
- Our FLS only assesses/manages hip fracture patients. All of our fragility hip fracture patients are recommended for osteoporosis medication.
- Our FLS refers all of the fragility fracture patients automatically to an osteoporosis specialist or Osteoporosis/Metabolic Bone Disease Clinic. Treatment recommendation is left at their discretion.
- Patients who are deemed "high risk" as per CAROC are recommended for osteoporosis medication (BMD testing is required for non-hip, non-spine fracture patients). Please specify who is responsible for determining the patient's fracture risk in your FLS:

Patients who are deemed "high risk" as per FRAX with BMD are recommended for osteoporosis medication. Please specify who is responsible for determining the patient's fracture risk in your FLS:

Patients who are deemed "high risk" as per FRAX without BMD are recommended for osteoporosis medication. Please specify who is responsible for determining fracture risk for your FLS:

We leave the fracture risk determination to the radiologist who interprets the patient's BMD results. The patient's family physician makes the decision to initiate osteoporosis treatment based on the BMD report issued by the hospital/diagnostic imaging service.

Other method (please describe):

Our FLS does not provide treatment recommendation

38. In your FLS, who prescribes the osteoporosis medication? Choose the most common option only.

- Nurse practitioner FLS coordinator
- Registered nurse FLS coordinator
- Osteoporosis/Metabolic Bone Disease specialist (may include family physician working for the pre-determined Osteoporosis/Metabolic Bone Disease Clinic)
- Orthopaedic surgeon, coordinated by the FLS coordinator
- Orthopaedic surgeon, at his/her discretion
- Patient's own family physician or primary care nurse practitioner
- Other (please describe):

Communications with the patient's primary care provider

39. What is included in your FLS's letter/report to the patient's primary care provider? Click all that apply:
- Results of all investigations performed by the FLS
  - A determination of the patient's fracture risk
  - Treatment initiated and/or recommended for this patient
  - Our FLS refers all fracture patients automatically to an osteoporosis specialist/clinic. The letter goes directly from the osteoporosis specialist/clinic to the patient's primary care provider.
  - The BMD report which is sent to the family physician serves as our final communication to the patient's family physician
  - Our FLS does not issue a report to the patient's primary care provider.
  - Other (please describe):
40. Please provide us with a sample of a letter to a family physician with all personal data removed.  
Sample letter attached:  Yes  No

Patient follow-up

41. How many times does your FLS follow-up with patients?
- None
  - Single follow-up. When (e.g. 3 months after initial visit):
    - In person
    - By phone
  - Multiple follow-ups. When (e.g. 3, 9 months after initial visit):
    - In person
    - By phone
  - Our fracture patients are all referred to an osteoporosis specialist or Osteoporosis/Metabolic Bone Disease Clinic and follow up is left at the specialist's discretion.

Outcome measurements

42. Does your FLS record/collect and maintain data (e.g. Excel dataset) to monitor your model's effectiveness at closing the post-fracture care gap?  Yes  No
43. What outcomes are you monitoring for your FLS (e.g. proportion of enrolled patients who get BMD testing, proportion of enrolled patients initiated on treatment, etc.)? Click all that apply.
- None
  - BMD completion
  - Completed fracture risk assessment as per FRAX or CAROC
  - Treatment initiation
    - For all fracture patients, whether deemed high risk or moderate risk. Please specify method:
    - For "high risk" fracture patients only. Please specify method:
  - Treatment compliance
  - Subsequent fractures

44. Is there an audit system in place comparing your FLS's annual number of enrolled fracture patients to the total number of fracture patients seen annually at your hospital? Yes No

Please describe:

45. Any further details you may wish to provide about any of the above questions (1-44). Please be specific:

46. Please send any documents (e.g. medical directive, algorithm, etc.) that you feel might support your submission. They will be reviewed if needed. Additional documents are attached Yes No

#### Funding issues/challenges

47. How is your model funded?

Integrated within existing services. Please elaborate:

Dedicated hospital/government funding for the FLS (e.g. to cover the dedicated FLS coordinator's salary)

Permanent/core funding

Temporary funding. What is the projected funding end date and do you have a plan to obtain longer term funding for your FLS?  No  Yes Please provide details:

Research grant funding. What is the projected funding end date and do you have a plan to obtain longer term funding for your FLS?  No  Yes Please provide details:

Is your research project an RCT with a no-FLS control arm? Yes No

Philanthropic grant funding. What is the projected funding end date and do you have a plan to obtain longer term funding for your FLS?  No  Yes Please provide details:

Other, please describe, including projected funding end date and any plans to obtain longer term funding:

48. Please list your major challenges and threats:

49. How do you think Osteoporosis Canada can help?

50. Any other comments:

Osteoporosis Canada may use the data collected in these questionnaires for possible future research purposes. The FLS sites would remain anonymous in the event of any publication.

I agree to the use of the data collected in this questionnaire for possible future publication and/or presentation to support FLS implementation.

I disagree to the use of the data collected in this questionnaire for possible future publication and/or presentation to support FLS implementation.

**Sign me up to receive the following resources from Osteoporosis Canada:**

Liaison Newsletter via the FLS Network (updates about education events, FLS Works! webinars and articles on FLS)

Thanks for your participation! Please ensure you've answered all questions and submit your completed form to [FLSRegistry@osteoporosis.ca](mailto:FLSRegistry@osteoporosis.ca).

The above email accepts completed submissions only. If you have questions, please contact Katie Cvitkovitch, FLS Manager at [kcvitkovitch@osteoporosis.ca](mailto:kcvitkovitch@osteoporosis.ca).