

Osteoporosis Canada FLS Registry FAQs

1. **What is the Osteoporosis Canada (OC) FLS Registry?**

The OC FLS Registry is an online map profiling FLS programs in operation across Canada which meet OC's [Essential Elements of Fracture Liaison Services](#). The International Osteoporosis Foundation (IOF), after a thorough evaluation, has determined that OC's Essential Elements are of robust quality. All Canadian FLSs on the OC FLS Registry are featured on their Capture the Fracture (CTF) Map of Best Practice. Indeed, Osteoporosis Canada's FLS Registry is the single gate of entry into their CTF map.

2. **What is the purpose of the OC FLS Registry?**

OC created this much needed resource to help further efforts to support and promote the implementation of effective FLSs in Canada. The OC FLS Registry celebrates and profiles these models. The gaps on the map also help identify geographic areas within Canada which are lacking access to FLS.

3. **Why should I submit my post-fracture care model for consideration to the FLS Registry?**

There are many benefits to submitting your post-fracture care model to the OC FLS Registry:

- a) A formal evaluation of whether your model meets OC's Essential Elements of FLS. Models meeting all of OC's Essential Elements have consistently demonstrated a meaningful improvement in the osteoporosis care received by fracture patients, typically improving the rate of appropriate treatment by at least 2-fold.
- b) Showcase your FLS program to stakeholders in your community/jurisdiction.
- c) Become part of a community of practice with other Canadian FLS programs from across the country.
- d) Help develop a vital tool to assist with OC's efforts to foster the implementation of effective FLSs and improve the quality of programs across Canada.

4. **What are OC's Essential Elements of Fracture Liaison Services?**

Most FLS programs will start small and gradually expand over time (e.g. FLS may start as hip fracture only and eventually expand to identify other fracture types). Accordingly a set of criteria was developed by a group of Canadian FLS experts who carefully selected 8 "[Essential Elements](#)" which represent the minimum processes needed for any FLS, within its own limitations (e.g. hip fracture only FLS), to successfully ensure that the great majority of fracture patients in that FLS will receive appropriate osteoporosis care.

5. **What is the difference between an FLS and an Osteoporosis Clinic (or between an FLS and a Family Practice which offers great osteoporosis care for their patients)?**

The main feature distinguishing an FLS from an Osteoporosis Clinic (or a Family Practice providing evidence-based osteoporosis care for their patients) is the fact that the FLS does systematic and pro-active case finding, at the level of the system, with the goal of capturing all of the patients presenting to hospital with a fragility fracture suspicious for osteoporosis. To capture fracture patients at the systemic/hospital level typically requires:

- For hip fracture patients: proactive case finding directly from the orthopaedic inpatient ward (or from an equivalent administrative database). Such FLSs may also capture a very small proportion of some other fracture types (e.g. the very small proportion of wrist fracture patients who may require admission to hospital).

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- For wrist and shoulder fracture patients: proactive case finding directly from the orthopaedic outpatient clinics (or from an equivalent administrative database). Such FLSs may also capture some of the hip fracture patients who may return for follow-up in the orthopaedic outpatient clinic.
- For spine fractures: These are the most difficult to identify since two-thirds of vertebral fractures do not present to medical attention at the time of their acute fracture. Most vertebral fractures are in fact diagnosed from x-rays that are done for completely unrelated purposes, e.g. a vertebral fracture may be first discovered as an incidental finding when a patient goes for a chest x-ray to rule out pneumonia. Systemic proactive case finding of these radiological spine fractures requires screening of all Diagnostic Imaging Department's relevant x-ray reports, typically chest x-rays, spine x-rays, CT scans of spine/chest/abdomen and MRIs of spine/chest/abdomen. Because such FLSs are very complex, OC recommends that spine fracture FLS should only be undertaken by experienced combined inpatient/outpatient FLSs who have already demonstrated their effectiveness for non-spine fracture patients.

In summary, the main source of patients for the FLS is from the FLS itself proactively finding the fracture patients within areas of the hospital where fracture patients most commonly intersect with the healthcare system.

6. Our FLS has a dedicated coordinator who works 1 day per week proactively case finding fracture patients in our hospital's outpatient orthopedic clinic. We have orthopedic clinics at our hospital 4 days per week. Can our model be profiled on the OC FLS Registry?

The OC FLS Registry recognizes hospitals where there is good access to an FLS for fracture patients presenting in a particular setting (e.g. ortho inpatient ward or ortho OPD clinics). Wishing to be inclusive, the OC FLS Registry recognizes hospitals who provide access to FLS for at least 50% of the fracture patients seen in the particular setting.

In the case of your hospital, 75% of the OPD fracture population currently does not have access to an FLS. Therefore, your hospital cannot be profiled on the OC FLS Registry. We would welcome your submission once the FLS coordinator covers at least 2 days of the 4 days per week (i.e. at least 50%) of the orthopaedic clinics.

7. We have recently implemented a post-fracture care model which doesn't meet all 8 of the OC FLS Essential Elements. We believe it will prove to be effective. Can our model be profiled on the OC FLS Registry?

Evidence to date has shown that FLSs adhering to all 8 of the Essential Elements consistently demonstrate a meaningful improvement in the post-fracture care gap, typically improving the rate of appropriate osteoporosis treatment at least two-fold. FLS has outperformed all other post-fracture interventions leading to a significant reduction in secondary fractures and their associated healthcare costs.¹⁻³

Post-fracture care models that do not meet all of the Essential Elements have, to date, demonstrated either complete lack of effectiveness in closing the post-fracture care gap or, in the case of 1i models (only identification and alert to the Primary Care Provider), only a tiny improvement in the proportion of patients receiving appropriate osteoporosis treatment.

The OC FLS Registry Committee, however, recognizes that new research is ongoing and welcomes submissions to the Registry from innovative post-fracture care models that may not meet all of the

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current OC Essential Elements of FLS, provided:

- a) the model has been in operation for at least one full year AND
- b) the model demonstrates it is effective based on OC's core FLS [KPIs](#).

8. Our hospital corporation has 2 different hospital sites offering orthopaedic services. Each site operates a similar post-fracture care model but do have some differences. Should we be submitting one single application for the hospital corporation or should we be submitting a separate submission for each hospital site?

A hospital corporation might have two hospital sites offering two very different levels of post-fracture care. For example, site A of a hospital corporation could have a dedicated FLS coordinator and meet all 8 of the FLS Essential Elements, whereas site B of the same corporation could be providing only osteoporosis brochures to their patients. It is obvious that site B does not meet any of the Essential Element for FLS. From the perspective of the FLS Registry, it is important that individual hospital sites with FLS (meeting all 8 of the Essential Elements) be recognized. Therefore, each individual hospital site must submit a separate application form and each site will be reviewed independently.

9. We have a research grant funded FLS that satisfies all of the 8 “Essential Elements”. Our research funding will run out in 6 months. Can we be included in the OC FLS Registry?

The FLS Registry is intended to show sustainable, i.e. longer term/permanent, FLSs across Canada. FLSs dependent on temporary sources of funding may also be included in the OC FLS Registry provided they can demonstrate they have a plan to secure ongoing funding.

10. We are planning to implement a new FLS and want it to be successful. What conditions would help our FLS site achieve success?

Ensuring your site plans for and meets the 8 [Essential Elements](#) and the associated Technical Parameters is the best way to ensure the success of any FLS. Osteoporosis Canada offers a free FLS consultation service. We can help you ensure your new FLS is designed for success from the get-go.

11. What happens to my application after I submit it?

Application forms will be received at FLSRegistry@osteoporosis.ca. **Please do not submit directly to any Osteoporosis Canada staff or any other Osteoporosis Canada email.**

All application forms are de-identified upon receipt to ensure effective blinding of the OC FLS Registry Committee reviewers.

The timeline from submission to completion of the assessment is dependent on the completeness of the application and the availability of the OC FLS Registry Committee reviewers. Please ensure your application form is completed in full and all requested details are provided. Any missing information will delay your application's review.

All applicants will be notified of the outcome of the review process. Successful submissions will be posted on both the FLS Registry and the IOF's Capture the Fracture map. Osteoporosis Canada does not release the names of unsuccessful FLS applicants.

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1. Sale JE, Beaton D, Posen J, Elliot-Gibson V, Bogoch E. Systematic review on interventions to improve osteoporosis investigation and treatment in fragility fracture patients. *Osteoporos Int.* 2011;22(7):2067-2082.
2. Ganda K, Puech M, Chen JS, et al. Models of care for the secondary prevention of osteoporotic fractures: a systematic review and meta-analysis. *Osteoporos Int.* 2013;24(2):393-406.
3. Barton DW, et al. The clinical impact of Fracture Liaison Services: a systematic review. *Geriatr Orthop Surg Rehabil.* 2021: 12:1-9.