





Fracture Liaison Service in Alberta

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Disclosure

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Outline

- The Problem
- The Alberta Context
- Creation of the Fracture Liaison Service (FLS)
- FLS Processes
- Current Status of FLS in AB
- Challenges







The Problem

Annual Incidence of Common Diseases



Osteoporosis Canada, 2015







Key Facts

- At least 1 in 3 women, and 1 in 5 men, will break a bone due to osteoporosis in their lifetime
- 1 in 3 hip fracture patients will re-fracture within 1 year, and over 1 in 2 will suffer another fracture within 5 years *without treatment*
- Typically >80% of patients who have suffered a fracture are neither assessed nor treated
- Annual cost to Canadian Healthcare from osteoporosis and fractures in 2010 was > \$2.3 billion

https://osteoporosis.ca/about-the-disease/fast-facts/







The Alberta Context

Red Deer specific

- There are close to 3,000 hip fractures in Alberta yearly
- To date 846 patients have been enrolled in Red Deer FLS (293 last year)
- Of those patients we enrolled
 - 143 have died
 - 1/3 are on treatment







Bone and Joint Health SCN









Catch a Break











Acute Care

Provincial Clinical Pathway + Order Sets STANDARDIZED PROVINCIAL CARE

Developing Alberta **BEST PRACTICE GUIDELINES** for hip fracture care

PROVINCIAL and SITE-SPECIFIC PERFORMANCE INDICATORS

Catch a Breal

Time to Surgery ≤ 36 Hours Length of Stay

EXAMPLES

Early Mobilization 30 Day Readmission

Return to Previous Living Environment

Re-fracture < 1 Year



Catch a Break

Acute Care

Restorativ













Restorative

Care Provincial Restorative Pathways STANDARDIZED PROVINCIAL CARE

Transition to COMMUNIT Y CARE

Pathways for: 1) Up to post-operative day 7 2) From post-operative day 8 to 28

Catch a Break Acute Care

Home +/- home care Rural acute sites Rehab/subacute/ transition

Long-term care ncludes. Supportive Living







What is an FLS?

- A specific systems-based model of care for secondary fracture prevention
- Closes the care gap between orthopaedic care postfracture / patient's underlying osteoporosis and return to primary care
- 3i program:

Identification (1i) Investigation (2i) Initiation (3i)







Identification (1i)

Inpatient Orthopaedic Unit

Patient Care Census Hip Fracture Diagnosis

Patient ≥ 50 years old with identified fragility hip fracture









Investigation (2i)

FLS Patient Checklist

Nurse / Physician patient review Fracture and fixation Medical history Renal function Osteoporosis risks/history Fall risks/history Supports

Develop plan of care







Initiation (3i)









FLS Algorithm

Fracture Liaison Service (FLS) Medical Algorithm – September 2016; revised April 2017









Calcium and Vitamin D

Osteoporosis Canada		Health Canada	
Age	Recommended Intake from Supplements	Age	Recommended Dietary Allowance
19 to 50 years	400 to 1000 IU perday	9 to 70 years	600 IU per day
Over 50 years	800 to 2000 IU perday	Over 70 years	800 IU per day

Vitamin D helps build stronger bones and improves the function of muscles which in turn improves your balance and decreases the likelihood of falling resulting in potential fractures

- Osteoporosis Canada

Age	Daily Calcium requirements (includes diet and supplements)	s
19 to 50 years	1000 mg	
Over 50 years	1200 mg	

itudies of older adults show that adequate calcium intake can slow bone loss and lower the risk of fracture

- Osteoporosis Canada







Patient Education

- Osteoporosis,
- Future fracture risk
- Medications
- Diet (calcium, vitamin D)
- Exercise
- Home safety & fall prevention









Patient Education



Your Guide After a Hip Fracture

Exercises

The goal is for you to get back to the activities that you were able to do before you fractured your hip. To help you reach that goal, we'll get you moving around as soon as possible after surgery. Staff will help you, but much of the work is up to you. Keep in mind, the more active you are, the sooner you'll be ready to go home.

Your Alberta Health Care Insurance Plan covers 1 assessment visit and 6 physiotherapy sessions after surgery. Talk to your healthcare provider to learn more.

Hip Exercises: Phase 1

Keep doing your deep breathing and coughing exercises. It's important to exercise both legs to keep the blood flowing and help prevent blood clots. Do these until you're getting up out of bed regularly.

It's important to get both your strength and range of motion in your hip back after surgery. The exercises will help you do that. Do a few at a time but do them often.

To start, do the exercises at least 2 times a day, repeating each exercise 5 to 10 times. Slowly increase to 4 times a day, repeating each exercise 30 times. Do all exercises slowly and with control.

Bed Exercises

Exercise #1

- Lie on your back, bend your hip and knee by sliding your heel along the bed towards your buttocks. Putting a plastic bag on your foot may help it to slide better.
- 2. Keep your knee facing the ceiling, hold for a count of 3 to 5.
- 3. Lower your foot and slide it back to your start position.
- 4. Repeat.



Exercise #2

- 1. Place a firm roll that's 7.5 to 12.5 cm (3 to 5 inches) around under your knee.
- Keep the back of your knee on the roll and straighten the lower leg, lifting your foot off the bed.

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Hold for a count of 3 to 5 and then slowly lower your foot.
 Repeat.



Exercise #3

- 1. Gently move your leg out to the side and back to mid-line only.
- 2. Keep your knee straight and toes pointing to the ceiling.
- 3. Repeat.

A plastic bag under your leg and foot may help your leg slide more easily.



Sitting Exercises

Do these exercises with your operated leg only

Exercise #1

- 1. Sit on a steady chair with your thigh supported.
- Lift your foot and straighten your knee.
 Hold for a count of 3 to 5.
- Flowly lower your foot to the floor.
- 5. Repeat.



Exercise #2

- 1. Sit on a steady chair with your feet on a smooth surface.
- 2. Slowly slide your foot back as far as possible.

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Patient Education

Take Action: Prevent a fall before it happens

A fall is when you slip, trip, or fall suddenly onto the ground or floor. You could even bump against a wall or land on the stairs. The fall may or may not cause an injury.

Since you had a fall, it's very important for you to go over the next few pages on fall prevention.

Falls can happen anywhere. The good news is most falls can be prevented just by paying attention.

Pay Attention

- Keep your head up while walking and look at the area a few feet ahead of you. Try not to look down at your feet.
- Watch for hazards:
 - Look for things like cracks in the sidewalk, other people, newspaper boxes, pets, and ice.
- D Pay even closer attention when you're in a new place.
- Plan the time when you do things:
 - If you have trouble seeing in the dark, take out your garbage during the day.
 - Plan outdoor travel when the weather's good.







Patient Education

Too Fit to Fall or Fracture

Strength Training At least 2 days/week

- Exercises for legs, arms, chest, shoulders, back
- Use body weight against gravity, bands, or weights*
- ▶ 8 12 repetitions per exercise

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Try these to get started: □ Classes at YMCA/community centre □ Consult a physical therapist/kinesiologist □ Contact Osteoporosis Canada



Stand on one foot

Balance Exercises Every day

- ▶ Tai Chi, dancing, walking on your toes or heels
- Have a sturdy chair, counter, or wall nearby, and try (from easier to harder): shift weight from heels to toes while standing; stand heel to toe; stand on one foot; walk on a pretend line

Heel to toe stance







Q 3 Month Follow-up

- Follow-up calls done with patient/family/caregiver at 3,
 6, 9, and 12 months
 - > Mobility, falls, fractures
 - Medication adherence if on
 - **OP** treatment



- Investigations (BMD, vitamin D testing as appropriate)
- Referrals
- Letter faxed to GP after each follow-up call if there is relevant information to pass on to them







Secondary Fracture Prevention

- We haven't prevented the hip fracture, but the goal of FLS is to prevent further fractures by focusing on:
 - The reason for the fall and trying to reduce the risk for falling again – falling is not a normal part of aging!
 - Their bone health and treatment for osteoporosis if they are osteoporotic and having falls, they will fracture









www.albertahealthservices.ca