Fracture Liaison Services

The need for secondary fracture prevention
THE BURDEN OF FRAGILITY FRACTURES
The Burden of Fragility Fractures

Fragility Fractures are common

1 in 3 women and in 1 in 5 men over 50 years of age worldwide

(One fracture every 3 seconds)
The Burden of Fragility Fractures

FRACTURES ARE COSTLY

- EU: estimated costs of 37.5 billion EUR per year*
  
  (Broken Bones, Broken Lives: A roadmap to solve the fragility fracture crisis in Europe. IOF 2018)

- USA: estimated costs of 57 billion USD per year
  
  Lewiecki et al. (2019) JBMR Plus)

* Analysis based in six major European countries: France, Germany, Italy, Spain, Sweden and the UK.
The Burden of Fragility Fractures

FRACTURES AFFECT QUALITY OF LIFE

- Poorer recovery and higher mortality
- Increases the risk of a new fracture
- Persistent loss of mobility
- Lower independence
FIRST FRAGILITY FRACTURE...

= A broken bone after a fall from standing height, commonly resulting in fracture at the hip, wrist or spine
FIRST FRAGILITY FRACTURE... leads to another fracture soon

THE FIRST FRACTURE IS A SENTINEL EVENT

- Healthcare institutions are failing to respond to the first fracture
- The underlying causes of incident fractures remain under-diagnosed and under-treated
- Pharmacological interventions have been shown to substantially lower the risk of subsequent fractures
THE PROBLEM

In busy hospital systems, how do you make sure all the high risk patients who have a broken bone get rapid assessment and treatment to lower the risk of another fracture?
THE PROVEN SOLUTION

Fracture Liaison Services (FLS) – a coordinated, multi-disciplinary approach to patient care – offer the most clinically and cost-effective secondary preventive care.
FLS: The Proven Solution

Focused team that:

1. **Identifies** at risk patients
2. **Investigates** to identify those who need treatment
3. **Starts treatment** (lifestyle, medicines and exercise)
4. **Follows** the patient to support good adherence
5. **Continually improves** the FLS performance
Primary care

HEALTH CARE BENEFITS

- Fewer care admissions
- Fewer secondary care admissions
- Fewer re-fractures

FRACTURE LIAISON SERVICE

- IDENTIFY fragility fracture patients
- INVESTIGATE and fracture risk assessment
- Personalised TREATMENT RECOMMENDATION
- MONITORING for treatment initiation and adherence

HEALTH CARE SYSTEM
FLS: The Proven Solution

FRACTURE LIAISON SERVICES (FLS)

= cost-effective care delivery model to

IMPROVE OVERALL OUTCOMES & REDUCE COSTS

EFFECTS OF FLS (absolute change)

- BMD testing: +24%
- Treatment Adherence: +22%
- Treatment Initiation: +20%
- Re-fracture Rate: -5%
- Mortality: -3%

Broken Bones, Broken Lives: A roadmap to solve the fragility fracture crisis in Europe. IOF 2018
Fracture Liaison Services: Structure

Small core specialist service

Responsible for delivering pathway

- Champion
- Specialist nurses
- Administrators
- Patient pathways
- DXA/ Laboratory tests
- Treatment / referrals
Steps towards “Implementation of FLS”

A FIRST STEP IS TO GAIN SUPPORT FROM THE DIFFERENT STAKEHOLDERS

LOCAL
Hospital department, clinic

REGIONAL
County government, hospital trust, health management organization.

NATIONAL
Departments of Health, national health service, other governing, regulatory or financial stakeholders, private health care providers and health care insurance organizations.
Create a multi-disciplinary FLS project team

→ Lead clinician/local champion
→ Fracture coordinator
→ Orthopedic surgeon
→ Radiologist
→ Secondary care clinicians
→ Rehabilitation specialist – physiatrist
→ Service of fall prevention
→ Nurse specialists
→ Primary care physicians
→ Allied health professionals
→ Public health consultants
→ Service manager, administrator
→ Pharmacists
→ Patient representative
Designing your FLS service model

1. WRITE AIMS
   • Write specific and time-dependent aims and objectives

2. IDENTIFY
   • Identify how you will capture fragility fracture patients

3. WRITE CASE FINDING
   • Write case-finding protocols for the appropriate setting, e.g. inpatient ward, fracture clinic, diagnostic imaging, etc.

4. DECIDE
   • Decide what to include in your service model – see Best Practice Framework

5. ENSURE
   • Ensure all members of multi-disciplinary FLS project team endorse the prototype FLS mode
FLS Business planning process

KEY SUCCESS FACTORS IN AN FLS BUSINESS PLANNING PROCESS

→ Bringing together the FLS team
→ Early engagement with decision makers
→ A clear understanding of the management needs
→ Match with national clinical guidelines
→ Health economic modelling of costs and benefits
→ Develop business case plan for decision makers
Multi-sector FLS coalition

ADVOCACY AT A NATIONAL LEVEL

→ Establish Pilot FLS systems
→ Data collection to show clinical and cost effectiveness of FLS
→ Form a coalition of relevant professional/patient societies
→ Define national implementation guidelines
→ Conduct national audit of all current secondary fracture prevention units
→ Seek government-supported policy working group to achieve uniform best practice
→ Implement national policy
Challenges to maintain a sustainable FLS

**Identification** of patients and tracking – IT systems are still inadequate.

**Demonstrate** long term benefits

**Adherence to treatment** – Reminder systems prompting medication intake, prescription refills and nurse monitoring.

**Monitoring** of non-pharmacological intervention – Report systems and software support

**Transfer of patient** and information between care providers – Multi-professional acceptance along the entire chain

Demonstrate long term benefits
### Facilitators in establishing successful FLS

| ! | Awareness of the benefits in targeting secondary prevention |
| ! | Increasing interest in the orthopedic community |
| ! | Ortho-geriatrics gaining ground |
| ! | Identifying who pays for FLS and conducting a baseline audit to be cost-effective |
| ! | Laying out the patient pathway from admission to discharge |
| ! | Developing a database to identify and track patients |
| ! | Available therapies have reached cost advantages |
| ! | Advances in surgical management of fragility fractures leading to overall better outcomes |
| ! | Demographics – it is necessary! Patient / public demand! |
Conclusion

→ Major gap for patients with broken bones

→ Fracture liaison services (FLS)
  o Streamline patient care pathway
  o Effectively manage high risk patients
  o Coordinates multiple specialties to work together

→ Proven model that can be adapted to the resources available at each institution