Overview of the ‘Capture the Fracture’ Program and Fracture Liaison Services

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STOP AT ONE
MAKE YOUR FIRST BREAK YOUR LAST

SA Health
The burden of fragility fractures

- **Fragility fractures are common**
  1 in 3 women and 1 in 5 men over 50 years of age. One fracture every 3 seconds.

- **Fractures are costly**
  Australia- $2.75 billion in 2012, $3.84 billion by 2022

- **Fractures affects quality of life**
  Functional decline, loss of independence, Mortality
The Fracture Cascade

- 1st fracture at any skeletal site doubles future fracture risk
- 2nd fracture often happens within 6-8 months
- Half of patients presenting with hip fractures have suffered a prior fracture

Less than 20% of patients presenting to healthcare services with minimal trauma fractures are investigated or treated for osteoporosis.
Mortality and Morbidity caused by fragility fractures

Opportunity for intervention

- Mortality attributable to ageing alone
- Excess morbidity associated with fracture event
- Morbidity attributable to age
- Hip fractures
- Fractures: wrist, humerus, ankle, vertebrae
- Wrist fracture

Southern Adelaide Local Health Network
‘Stop at one’ – it’s the time to act

“IOF’s Capture the Fracture campaign sets the standard for best practice in FLSs, measures performance, and engages the health care community toward FLS implementation. Providing the opportunity for FLSs to benchmark their systems and showcase achievements on the Capture the Fracture Web-based map creates a visual representation of progress made and areas for development. This, in turn, is a tool to influence policy change in secondary fracture prevention.”
Capture the Fracture

BEST PRACTICE FRAMEWORK FOR SECONDARY FRACTURE PREVENTION

- the internationally endorsed, peer-reviewed guideline for secondary prevention of osteoporotic fractures
- promotes a coordinator-based model of care known as a Fracture Liaison Service (FLS) as the model of choice to be adopted by all hospitals and outpatient facilities that are treating fragility fracture patients
- recognizes all FLS who are in compliance with the BPF on the online interactive map

www.capturethefracture.org
Best Practice Framework for Fracture Liaison Services

5 DOMAINS
1. Hip fracture patient
2. Inpatients
3. Outpatients
4. Vertebral fracture patient
5. Organization

13 STANDARDS
1. Patient identification
2. Patient evaluation
3. Post-fracture assessment timing
4. Vertebral fracture
5. Assessment guidelines
6. Secondary causes of osteoporosis
7. Falls prevention services
8. Multifaceted health and lifestyle risk factor assessment
9. Medication initiation
10. Medication review
11. Communication strategy
12. Long-term management
13. Database
Fracture Liaison Services (FLS)

The FLS is designed to:

- Close the care gap for fracture patients
- Provide evidence-based assessment: stratify risk, identify secondary causes of osteoporosis, tailor therapy
- Initiate or recommend treatment in accordance with relevant guidelines
- Enhance communication between health care providers by providing a care pathway for the treatment of fragility fracture patients
- Improve long-term adherence with therapy
- Cost saving to healthcare systems
Summary of Clinical Standards for FLS

1. Identification
2. Investigation
3. Information
4. Intervention
5. Integration

5i’s’
Best Practice Framework Standards: Identification

All patients aged 50 years and over with a new fragility fracture will be systematically and proactively identified to enable delivery of secondary fracture prevention.

- Identifying patients ≥50 with a fragility fracture using fracture diagnoses code, ED reports, Digital Medical Record, wards admission list, visiting wards
- Monitoring discharge medications and discharge letters for evidence of interventions or recommendations
- Referrals from wards, outpatient clinics, GPs
Best Practice Framework Standard:
Investigation

Patients will have bone health assessment and comprehensive falls risk evaluated

Assessment includes:

- **Individual Risk Factors**: Calcium and vitamin D, BMI, Smoking, EtOH, Physical activity, History of fractures and family history, Falls

- **Co-Morbidities/clinical states**: Post menopausal, Hyperthyroidism, Hyperparathyroidism, Hypogonadism, Malabsorption/Inflammatory bowel diseases, Rheumatoid arthritis, Diabetes, CKD, Liver disease, Multiple myeloma, And more!

- **Drugs**: Glucocorticosteroids, Aromatase inhibitors (breast cancer), Anti-androgen drugs (prostate cancer), Anti-convulsants, PPI/H2 Blockers, Sedatives, Anti-depressants/anti-psychotics
Diagnostic investigations

- **DXA - Bone density test**

- **Blood tests** - Vitamin D level, ECU, Calcium, Corrected Calcium, GFR, LFT, TFT, PTH, FBE

  *If clinically indicated* - Androgen/reproductive studies males <70 years old, Celiac disease screen, Myeloma screen, Bone turnover markers

- **Falls Risk Assessment** - FROP-com- number of falls, mobility and functional status, Possible syncope- Lying & standing BP, Gait & balance- TUG, Medications- Polypharmacy/sedatives, Incontinence, Cognitive deficit, Visual deficit, Fear of falling
### Fracture risk assessment tools

#### FRAX

**Calculation Tool**

Please answer the questions below to calculate the ten year probability of fracture with BMD.

<table>
<thead>
<tr>
<th>Questionnaire:</th>
<th>1. Age (between 40 and 90 years) or Date of Birth</th>
<th>2. Sex</th>
<th>3. Weight (kg)</th>
<th>4. Height (cm)</th>
<th>5. Previous Fracture</th>
<th>6. Parent Fractured Ho</th>
<th>7. Current Smoking</th>
<th>8. Glucocorticoids</th>
<th>9. Rheumatoid arthritis</th>
<th>10. Secondary osteoporosis</th>
<th>11. Alcohol 3 or more units/day</th>
<th>12. Femoral neck BMD (g/cm²)</th>
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</thead>
<tbody>
<tr>
<td>Country: UK</td>
<td></td>
<td></td>
<td>70</td>
<td>158</td>
<td>No</td>
<td>No</td>
<td></td>
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<tr>
<td>Name/ID:</td>
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<tr>
<td>About the risk factors</td>
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</tbody>
</table>

**BMD: 24.9**

The ten year probability of fracture (%) without BMD:

- Major osteoporotic fracture: 5.7
- Hip fracture: 0.9

**View NOGG Guidance**

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#### GARVAN

### Fracture Risk Calculator

Fill out the following to estimate your fracture risk:

- Full Name (optional): 
- Sex: Male □ Female □
- Age: Select Age □
- Fractures since the age of 50: 0 □
- Falls over last 12 months: 0 □
- Do you have a Bone Mineral Density (BMD) measurement?: Yes □ No □
- T-scores: □
- OR: □
- Dual X-ray: □ by DXA GE Lunar □ by DXA Hologic
- Actual BMD: □

**Disclaimer**

The results produced by our calculator should serve as a guide only. If concerned about your fracture risk, it is also important to consult your doctor or a bone specialist.

☐ I have read and understand the disclaimer

**Calculate Risk Factor**
Best Practice Framework Standard: Information

All patients identified will be offered written information about bone health, lifestyle, nutrition and bone-protection treatments.

- **Lifestyle**
  - Fact sheets- Calcium, Vitamin D, Exercises

- **Information about drug and side effects**

- **Other services**

Best Practice Framework Standard: Intervention

Patients at increased risk of further fracture will be offered appropriate bone protection treatments

- When required, bone-protection treatment to be initiated
- The most appropriate treatment should be selected according to the patient’s individual needs
- Bisphosphonates, Denosumab, HRT, Teriparatide, Calcium & Vitamin D
Best Practice Framework Standard: Integration

Management plans to be patient-centred and integrated between primary and secondary care.

- Effective communication between the FLS and the patient’s GP is essential
- Letter to GP with recommendations, results of investigations, referrals
- Developing a long-term care plan promotes long-term management

- Follow-up at 6, 12 & 24 months
- Patient feels supported
- Early identification of issues – side effects, compliance
- Reinforces need to take treatments
The BPF Standards

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Patient Identification</td>
<td>Patients ID’d, not tracked</td>
<td>Patients ID’d, are tracked</td>
<td>Patients ID’d, tracked &amp; Independent review</td>
</tr>
<tr>
<td>2. Patient Evaluation</td>
<td>50% assessed</td>
<td>70% assessed</td>
<td>90% assessed</td>
</tr>
<tr>
<td>3. Post Fracture Assessment Timing</td>
<td>Within 13-16 weeks</td>
<td>Within 9-12 weeks</td>
<td>Within 8 weeks</td>
</tr>
<tr>
<td>4. Vertebral Fracture (VF) ID</td>
<td>Known VF assessed</td>
<td>Routinely assesses for VF</td>
<td>Radiologists identify VF</td>
</tr>
</tbody>
</table>

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The BPF Standards

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</thead>
<tbody>
<tr>
<td>5. Assessment Guidelines</td>
<td>Local</td>
<td>Regional</td>
<td>National</td>
</tr>
<tr>
<td>6. Secondary Causes of OP</td>
<td>50% of patients screened</td>
<td>70% of patients screened</td>
<td>90% of patients screened</td>
</tr>
<tr>
<td>7. Falls Prevention Services</td>
<td>50% of patients evaluated</td>
<td>70% of patients evaluated</td>
<td>90% of patients evaluated</td>
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<td>50% of patients initiated</td>
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<tbody>
<tr>
<td>10. Medication Review</td>
<td>50% assessed</td>
<td>70% assessed</td>
<td>90% assessed</td>
</tr>
<tr>
<td>11. Communication Strategy</td>
<td>Communicates to doctor</td>
<td>Communicates to doctor w/ %50 criteria</td>
<td>Communicates to doctor w/ %90 criteria</td>
</tr>
<tr>
<td>12. Long-term Management</td>
<td>1 year follow-up</td>
<td></td>
<td>6 month follow-up &amp; 1 year follow-up</td>
</tr>
<tr>
<td>13. Database</td>
<td>Local</td>
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<td>National</td>
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[www.capturethefracture.org](http://www.capturethefracture.org)
Get the FLS recognised on The Map

https://www.capturethefracture.org/