GUIDANCE ON OSTEOPOROSIS MANAGEMENT

For details of drugs and doses, refer to the Joint Formulary.

Primary prevention

1 Use the FRAX tool to assess fracture risk and to guide decisions about treatment or the need for a DEXA scan to assess Bone Mineral Density (BMD).

   Important risk factors for fracture include:
   • Parental history of hip fracture
   • Alcohol intake of 4 or more units per day
   • Rheumatoid arthritis

   Indicators of low BMD
   • Low BMI (less than 22kg/m²)
   • Medical conditions such as ankylosing spondylitis, Crohn’s disease, conditions resulting in prolonged immobility, untreated premature menopause

2 Consider falls history and falls risk, which are not incorporated into the FRAX tool or National Osteoporosis Guideline Group (NOGG) guidance. Where appropriate, refer for a falls assessment.

3 In younger patients for whom treatment is indicated on the basis of clinical risk factors alone, it is still recommended to perform a baseline DEXA scan to guide future decisions about treatment choice and duration.

Secondary prevention (history of a fragility fracture)

1 Consider the mechanism of injury and whether the patient has suffered a fragility fracture:

   Sustained from a fall from standing height or less, or an equivalent force. Often includes fractures of hip, pubic ramus, vertebral body, proximal humerus and wrist. Does not include fractures of hand, foot, fibula or rib, which would not normally suggest bone fragility.

2 Use the FRAX tool to assess future fracture risk and to guide decisions about treatment or the need for DEXA scan.
3 Treatment is recommended in the majority of elderly women >75 years with a prior fragility fracture, even if the fracture risk lies below the intervention threshold of the NOGG guidance. Therefore a DEXA scan may not be needed if clinically inappropriate or unfeasible.

4 In younger patients for whom treatment is indicated on the basis of clinical risk factors alone, it is still recommended to perform a baseline DEXA scan to guide future decisions about treatment choice and duration.

5 Routinely check bloods:

- Full Blood Count
- Plasma viscosity
- Calcium
- Renal Function

and consider testing for:

- Parathyroid hormone (especially when calcium is raised)
- Myeloma screen (serum and urine protein electrophoresis)
- In women – FSH
- In men – PSA, LH, testosterone & sex hormone binding globulin (SHBG)

6 Guidance for patients with Chronic Kidney disease 3b, 4 & 5 with a fragility fracture

- Check Calcium, phosphate, PTH and vitamin D
- Correct calcium and/or vitamin D as required

<table>
<thead>
<tr>
<th>CKD stage 3b</th>
<th>CKD 4</th>
<th>CKD 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>eGFR 30-45</td>
<td>eGFR 15-29*</td>
<td>eGFR &lt;15 and/or on renal replacement therapy</td>
</tr>
<tr>
<td>Follow usual guidance</td>
<td>If PTH normal, follow guidance for eGFR &gt;45 Perform DEXA Refer to renal team</td>
<td>Usually managed by renal team</td>
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</tbody>
</table>

*confirm creatinine clearance with Cockcroft-Gault formula.*
6 Duration of antiresorptive therapy

**R D & E BISPHOSPHONATE LENGTH OF TREATMENT GUIDELINES**

Treat with oral bisphosphonate for 5 years. 3 years for IV Zoledronate or SC denosumab.

Check Adherence

If no fractures on treatment:
Assess fracture risk and consider bisphosphonate holiday.

**HIGH RISK:**
- Post treatment T-score ≤-2.5 with history of fragility fractures.
- History of hip / vertebral / or multiple fragility fractures.
- Continuing oral glucocorticoid therapy.
- Continuing high risk patient (frailty, frequent falls, age ≥75).

**LOW RISK:**
- Post treatment BMD >-2.5
- No history of hip / vertebral / multiple fragility fractures.
- No fracture during treatment.
- Age <75.
- Stable or improved BMD.

**Bisphosphonate treatment holiday**
(patients should continue Calcium / Vitamin D supplementation).
- 1 year if patient was taking Risedronate.
- 2-3 years if patient was taking Alendronate.
- 3 years if patient was taking Zoledronate / denosumab

Continue treatment for a further 3-5 years.

Reassess

For patients who sustain a fragility fracture whilst on treatment:
- If during the first 2 years of bisphosphonate therapy, continue the same treatment.
- If fracture beyond 2 years of bisphosphonate therapy (or multiple fragility fractures), please refer for Direct Access DEXA.

PLEASE ASSESS ADHERENCE TO THERAPY IN ALL CASES.

Guidance drafted by the R D & E Osteoporosis group.
Queries / comments to Dr Mary Brown, Osteoporosis lead. mary.brown11@nhs.net