BHR CCGs & BHRUT Pathway for initiating treatment for osteoporosis in postmenopausal women

Barking, Havering and Redbridge University Hospitals NHS Trust

Barking and Dagenham, Havering and Redbridge Clinical Commissioning Groups

Fragility fracture age ≥ 50

Consider for DXA
Optimize vitamin D and risk factors
Check TFT, PTH, coeliac screen, PSA(in males) myeloma screen

T score at spine or hip <-2.5

DXA not able to tolerate

Commence on oral Alendronate 70 mg/weekly as first line

If intolerant consider Risedronate 35 mg /weekly
Or
S/C Denosumab*

Repeat DXA in 3 -5 yrs

Normal : Stop treatment.
Continue Ca/Vit D & life style modifications

Deteriorating BMD :

Refer to secondary care/FLS

Clinical risk factors aged ≥ 50

Fracture risk assessment (without BMD value) can be used to calculate 10 years probability of major osteoporotic fracture (www.shef.ac.uk/FRAX/tool.jsp)

Correct risk factors, treat underlying conditions and reassess
(the interval for repeat DXA should be decided on a case by case basis)

If in doubt

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Referral to secondary care

1. Patients unable to tolerate oral therapies. If IV zoledronate is indicated (e.g malabsorption, non-compliance)
2. Further fractures despite treatment with oral therapies.
3. Premenopausal osteoporosis (e.g anorexia, malabsorbtion, secondary to inflammatory bowel disease, steroid induced osteoporosis)
4. Patient suitable for Teriparatide i.e Vertebral fractures.
5. Male osteoporosis with comorbidities (e.g Testerosterone deficiency, Inflammatory bowel disease, Male osteoporosis with fragility fracture)
6. Severe osteoporosis with T score less than -4 in hip or spine.

Refer and contact details to Fracture Liaison Service (FLS)

Osteoporosis / Fracture Prevention Nurse
Senior Sister Dee Tomasso

Tel No: 01708 435000 ext 3219
Email: Dee.tomasso@bhrhospitals.nhs.uk

Contraindication of Bisphosphonate

1. Hypersensitivity reaction to bisphosphonate
2. Hypocalcaemia (correct hypocalcaemia and vitamin D deficiency first before treatment)
3. Renal impairment with creatinine clearance ≤ 35 ml/min
4. Active GI bleed, peptic ulceration and dyspepsia, Oesophageal abnormalities such as varies, Barret's oesophagus, and other factors delaying oesophageal transit and emptying –suitable for IV Zoledronate.
5. Adults with osteoporosis who have been taking bisphosphonates for 5 years have a review of the need for continuing treatment. (Ref: NICE Quality Standard 149 – Osteoporosis)

***Contraindication of Denosumab**

1. Hypocalcaemia (Correct before treatment)
2. Caution if creatinine clearance ≤ 35 ml/min or dialysis patient due to risk of hypocalcaemia)
3. Hypersensitivity to denosumab

Dose of denosumab 60mg subcutaneously once every 6 month, duration of treatment 3years.
First dose to be given in secondary care with subsequent continuation in the primary care.

Osteoporosis: assessing the risk of fragility fracture (NICE CG146)

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Consider assessment of fracture risk:

- Fracture probability should be assessed in postmenopausal women, and men age 50 years or more, who have risk factors for fracture, using FRAX. In individuals at intermediate risk, bone mineral density (BMD) measurement should be performed using dual energy X-ray absorptiometry and fracture probability re-estimated using FRAX.
- Vertebral fracture assessment should be considered in postmenopausal women and men age >50 years if there is a history of >=4cm height loss, kyphosis, recent or current long-term oral glucocorticoid therapy, or a BMD T-score <= -2.5
- current use or frequent recent use of oral or systemic glucocorticoids- (NOGG - taking high doses of glucocorticoids (>7.5 mg/day prednisolone) should be considered for bone protective therapy.)
- history of falls
- family history of hip fracture
- other causes of secondary osteoporosis *
- low body mass index (BMI) (less than 18.5 kg/m2)
- smoking > 10 cigarettes per day
- alcohol intake of more than 14 units per week for women and men

Do not routinely assess fracture risk in people aged under 50 years unless they have major risk factors (for example, current or frequent use of oral or systemic glucocorticoids, untreated premature menopause or previous fragility fracture), because they are unlikely to be at high risk.

*Other secondary causes of osteoporosis:

1. Rheumatological: rheumatoid arthritis, other inflammatory arthropathies
2. Gastrointestinal: coeliac disease; inflammatory bowel disease, chronic liver disease, chronic pancreatitis, malabsorption
3. Endocrine & metabolic: untreated premature menopause, hyperthyroidism, Primary hyperparathyroidism, Cushing's disease, type 1 diabetes, hypogonadism, hyperprolactinaemia; treatment with aromatase inhibitors or androgen deprivation therapy (GNRH analogues) or homocystinuria
4. Haematological: multiple myeloma, haemoglobinopathies, systemic mastocytosis, HIV positive
5. Chronic renal disease
6. Respiratory: COPD on long-term glucocorticoids, cystic fibrosis
7. Immobility: wheelchair bound

Primary prevention of osteoporosis fragility fracture in postmenopausal women (NICE TA160)

1. Alendronate is recommended as a treatment option for the primary prevention of osteoporotic fragility fractures in the following groups:
Women aged 70 years or older who have an independent clinical risk factor for fracture (see section 1.5) or an indicator of low BMD (see section 1.6) and who are confirmed to have osteoporosis (that is, a T-score of −2.5 SD or below). In women aged 75 years or older who have two or more independent clinical risk factors for fracture or indicators of low BMD, a DXA scan may not be required if the responsible clinician considers it to be clinically inappropriate or unfeasible.
Women aged 65–69 years who have an independent clinical risk factor for fracture (see section 1.5) and who are confirmed to have osteoporosis (that is, a T-score of −2.5 SD or below).
Postmenopausal women younger than 65 years who have an independent clinical risk factor for fracture (see section 1.5) and at least one additional indicator of low BMD (see section 1.6) and who are confirmed to have osteoporosis (that is, a T-score of −2.5 SD or below). (https://www.nice.org.uk/guidance/ta160/chapter/1-guidance)

Contraindication of bisphosphonate (see Page 2) or consider an alternative treatment (see below)

2. Risedronate is recommended as alternative treatment options for the primary prevention of osteoporotic fragility fractures in postmenopausal women:
who are unable to comply with the special instructions for the administration of alendronate, or have a contraindication to or are intolerant of alendronate (as defined in section 1.7) and who also have a combination of T-score, age and number of independent clinical risk factors for fracture (see section 1.5) as indicated in the table (see section 1.2).
(https://www.nice.org.uk/guidance/ta160/chapter/1-guidance)

3. Denosumab is recommended as a treatment option for the primary prevention of osteoporotic fragility fractures only in postmenopausal women at increased risk of fractures:
who are unable to comply with the special instructions for administering alendronate and either risedronate or etidronate, or have an intolerance of, or a contraindication to, those treatments and who have a combination of T-score, age and number of independent clinical risk factors for fracture (see section 1.3) as indicated in the table (see section 1.1).(https://www.nice.org.uk/guidance/ta204/chapter/1-guidance)
Contraindication of denosumab (see Page 2)

Strontium ranelate will no longer available in UK from Aug 2017.

Dr. T.S. Wickramaratne – Consultant Rheumatologist ,Lead Osteoporosis, BHRUT
Dr. Myo Lynn – Consultant Rheumatologist , BHRUT.

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