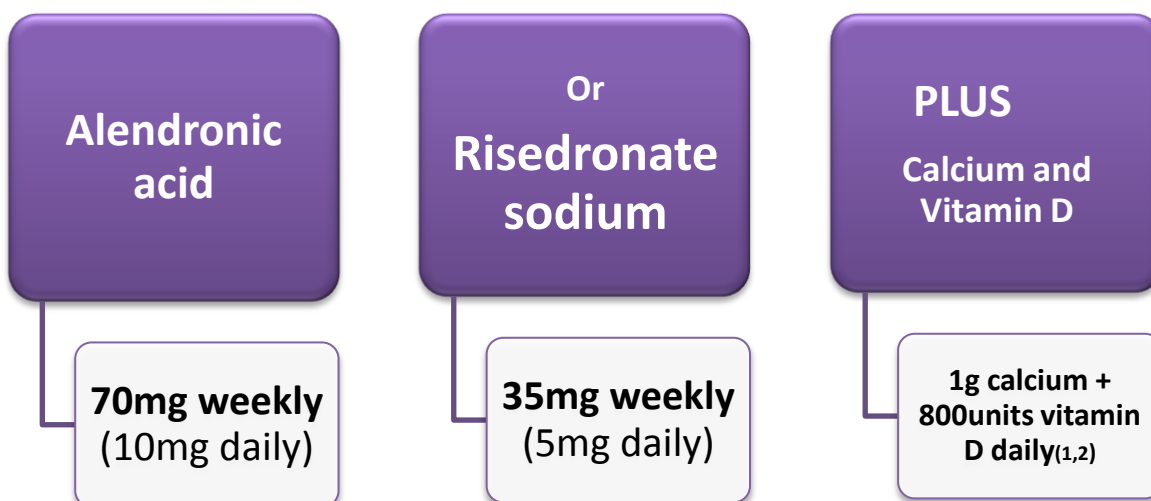


Osteoporosis Prescribing Guideline for Primary Care

Who is at Risk? (document outlining care pathways is currently in development)

- Post-menopausal women, Previous fragility fracture^(1,2)
- Commitment or exposure to oral glucocorticoids for more than 3 months⁽³⁾
- Risk factors⁽¹⁾: inc. smoking, alcohol, family history, rheumatoid arthritis, BMI <22kg/m², Premature menopause
- Long term Depo-Provera^{®(4,5,6)}

Pharmacological Interventions



- ✓ **Check BNF for licensed dose and formulation:** some bisphosphonate preparations (e.g. once weekly/ monthly) are currently only licensed in post-menopausal osteoporosis. Generic calcium and ergocalciferol is not recommended as it is not the correct dose of calcium.
- ✓ **Counsel on correct administration:** Swallow tablets whole with plenty of water, whilst standing or sitting. Take on an empty stomach at least 30 minutes before first food or drink of the day. Patient should stand/sit for at least 30 minutes after taking tablet. If taken at any other time of day avoid food, drink and other oral medicines for at least 2 hours before or after (particularly avoid calcium containing products e.g. milk, calcium tablets; - iron, mineral supplements and antacids) Do not take tablets at bedtime or before rising.⁽⁷⁾

Other medications –

Disodium etidronate (Didronel PMO) Recommended for those who are unable to comply with the special instructions for the administration of alendronate, or have a contraindication to or are intolerant* of alendronate^(1,2)

The following can be used as *alternative* treatment options for those at increased risk of fractures who are unable to comply with the special instructions for the administration of alendronate and either risedronate or etidronate, or have a contraindication to, or are intolerant* of, those treatments. ^(1,2) NB Prescribe **Calcium & vitamin D 1g calcium + 800units vitamin D daily**^(1,2)

- **Ibandronic acid.** Only licensed for secondary prevention of post-menopausal osteoporosis⁽⁸⁾ Available as 150mg tablet (once monthly) and 3mg injection (every three months, secondary care only). The effect of ibandronic acid on hip fractures, which are associated with the highest rates of mortality and morbidity, has not been assessed.
- **Zoledronic acid.** To be prescribed by secondary care for the treatment of post-menopausal osteoporosis, osteoporosis in men and the treatment of osteoporosis associated with long-term systemic glucocorticoid therapy, the recommended dose is a single intravenous infusion of 5mg once a year.
- **Strontium ranelate.** Primary and secondary prevention of postmenopausal osteoporosis only.⁽⁸⁾
- **Raloxifene.** Only recommended for SECONDARY prevention of postmenopausal osteoporosis.⁽⁸⁾
- **Denosomab** ▼ (traffic light status: **RED**). To be prescribed by secondary care for primary and secondary prevention of postmenopausal osteoporosis only^(8,9).
- **Teraparotide** ▼ . (traffic light status: **RED**) Licensed for treatment of glucocorticoid induced osteoporosis in both men and women. Only recommended for SECONDARY prevention of postmenopausal osteoporosis.⁽⁸⁾
- **Hormone replacement therapy (HRT)** No longer recommended for the management of post-menopausal osteoporosis.⁽¹⁰⁾ Can be discussed as an option but the risks and benefits should be discussed before starting treatment. Alternatives to HRT should be considered if osteoporosis is the main concern.^(1,2)

* For the purposes of this guidance, intolerance of alendronate, risedronate or etidronate is defined as persistent upper gastrointestinal disturbance that is sufficiently severe to warrant discontinuation of treatment, and that occurs even though the instructions for administration have been followed correctly. (NICE TA160 – Oct 2008, NICE TA161 – Oct 2008)^(1,2)

Diet and Lifestyle Advice - Should be considered as an active treatment

- **Falls Prevention** – a structured approach, including examination of the home environment and concurrent medication, is required.
- **Exercise** - Regular, low impact, weight-bearing exercise increases bone density.
- Avoid excessive **alcohol** intake (i.e. not more than 12 units/week).
- **Smoking cessation** - Offer smoking cessation advice.
- **Diet** - A well balanced diet, rich in dietary calcium. Patient information on dietary calcium available on www.nos.org.uk and 'Calculate your Calcium' (Scottish Intercollegiate Guidelines Network: www.sign.ac.uk/guidelines/fulltext/71/annex4.html)

References

- 1 [NICE. Alendronate, etidronate, risedronate, raloxifene and strontium ranelate for the primary prevention of osteoporotic fragility fractures in postmenopausal women. Technology Appraisal 160. October 2008](#)
- 2 [NICE. Alendronate, etidronate, risedronate, raloxifene, strontium ranelate and teriparatide for the secondary prevention of osteoporotic fragility fractures in postmenopausal women. Technology Appraisal 161. October 2008](#)
- 3 Royal College of Physicians (2002) 'Guidelines for the Management of Glucocorticoid-induced Osteoporosis' <http://bookshop.rcplondon.ac.uk/contents/966c62dd-8011-4f65-a61d-dd0c7fe4fa4b.pdf>
- 4 Rotherham PCT Family Planning Department – Depo-Provera Contraception information sheet.
- 5 www.ukmicentral.nhs.uk 24.12.2004 'more data on bone loss with depot medroxyprogesterone'
- 6 PRODIGY (revised Oct 2003)– Osteoporosis treatment www.prodigy.nhs.uk
- 7 British National Formulary (BNF) No.60
- 8 Summary of Product Characteristics – www.emedicines.org.uk
- 9 Regional Drug and Therapeutics centre. New Drug Evaluation No. 105, June 2010. http://www.nyrdtc.nhs.uk/docs/nde/NDE_105_Denosumab.pdf
- 10 MHRA. Drug Safety Update: Volume 1, Issue 2, September 2007. <http://www.mhra.gov.uk/Publications/Safetyguidance/DrugSafetyUpdate/CON2032234>
- 11 [Avenell A, Gillespie WJ, Gillespie LD, et al. Vitamin D and vitamin D analogues for preventing fractures associated with involutional and post-menopausal osteoporosis. Cochrane Database of Systematic Reviews 2009, Issue 2. Art. No.: CD000227. DOI: 10.1002/14651858.CD000227.pub3](#)