Gateshead Clinical Commissioning Group

QE Gateshead
Quality and excellence in health

Gateshead Medicines Management Committee
Prescribing Information Sheet

DENOSUMAB 60mg sc twice yearly for osteoporosis - Information for Treatment of Post-Menopausal Women in Primary Care

Denosumab is licensed for the treatment of post menopausal osteoporosis and for the treatment of bone loss associated with hormone ablation in men with prostatic cancer. This information sheet applies to the use of denosumab in osteoporosis for post-menopausal women.

Formulary Approved Indication
Denosumab is included in the Gateshead Formulary as a green + drug for second line use in post-menopausal women with osteoporosis at increased risk of fracture who fail to respond to, or have contraindications against, the use of oral bisphosphonates in accordance with NICE guidance TA204.
http://www.nice.org.uk/nicemedia/live/13251/51329/51329.pdf

Use in Osteoporosis

Denosumab is a monoclonal antibody that inhibits osteoclast differentiation and survival, thereby decreasing bone resorption. NICE has approved it for use in postmenopausal women on the basis that initiation (first dose) will be in an outpatient environment in secondary care and subsequent doses will be given by a nurse in primary care.

Dose

60mg by subcutaneous injection every six months. No dosage adjustment is required in the elderly or in patients with renal impairment. Administration to the thigh, abdomen or back of arm should be performed by an individual who has been trained and is competent in subcutaneous injection.

Cautions

Measure baseline calcium and vitamin D levels. Correct any vitamin D insufficiency with adequate intake of calcium and vitamin D before initiation of therapy in accordance with the Gateshead Vitamin D guideline http://ginportal.info/wp-content/uploads/2013/02/Vitamin-D-FINAL1.pdf
Adequate intake of calcium and vitamin D is important during treatment. There is an increased risk of hypocalcaemia in severe renal failure (eGFR <30 mL/minute) or in patients on dialysis.
Atypical femoral fractures have been reported rarely in patients with postmenopausal osteoporosis receiving long-term (≥2.5 years) treatment with denosumab 60 mg (Prolia▼) in a clinical trial. During denosumab treatment, patients presenting with new or unusual thigh, hip or groin pain should be evaluated for an incomplete femoral fracture. Discontinuation of denosumab therapy should be considered if an atypical femur fracture is suspected, while the patient is evaluated.[1]

Contra-indications

Hypocalcaemia. Hypersensitivity to the active substance or any of the product excipients. Avoid use in pregnant or breastfeeding patients, or in children under 18 years of age.

[1] Denosumab 60 mg (Prolia?): rare cases of atypical femoral fracture with long-term use : MHRA
Feb 2013 Drug Safety update volume 6 Issue 7

Monitoring

Hypocalcaemia is most common in the first 6 months of dosing but can occur at any time. Roughly 1 in 2000 risk of developing hypocalcaemia when denosumab is used for osteoporosis (risk in patients receiving oncological doses may be higher). The MHRA recommend periodic monitoring of calcium after use of denosumab in patients who are hypocalcaemic, have low vitamin D at baseline, are in renal failure (eGFR<30ml/min), or on dialysis.

Adequate intake of calcium and vitamin D during treatment should be maintained through supplementation or diet. Assessment of intake should be documented if supplementation not felt to be necessary. Monitoring of calcium and vitamin D levels prior to each denosumab injection is recommended.

Side-effects

Eczema (1.7% placebo, 3% denosumab) and flatulence (1.4% placebo, 2.2% denosumab).
Increased risk of skin infections / cellulitis (<0.1% placebo, 0.4% denosumab), urinary infections (0.5% placebo, 0.7% denosumab), ear infections (0.1% denosumab, 0% placebo) in phase III trials[2]

Cases of osteonecrosis of the jaw (ONJ) have been reported but, as with bisphosphonates, the vast majority were in patients receiving oncological dose ranges (120mg monthly). Although extremely rare in osteoporosis doses, to minimise risk of this adverse effect, good oral hygiene should be maintained, and patients should avoid invasive dental procedures if possible.

The needle cover contains a derivative of latex which may potentially cause allergic reactions.

Denosumab is a black triangle drug which is monitored intensively by the MHRA and CHM. All adverse drug reactions should therefore be reported using the yellow card system.

Drug Interactions

None known

How to order

Primary Care

Denosumab can be delivered directly to the practice within 24 hours (to order, contact Movianto on 01234 248631 – Product code 900320). Alternatively, it can be provided to patients through a retail pharmacy by writing an FP10.

Cost

NHS cost of each 1ml prefilled syringe is £183 (ie £366pa).
Denosumab efficacy and pricing are similar to yearly intravenous zoledronate but the drug does not require intravenous infusion facilities in secondary care.

How to store

Denosumab should be stored in a refrigerator (2° - 8°). Do not freeze. Keep the pre-filled syringe in the outer carton to protect from the light.

Adapted from a Blue Prescribing Information Leaflet developed by North of Tyne APC

[2] Cummings SR, San Martin J, McClung MR, et al. Denosumab for prevention of fractures in postmenopausal women with osteoporosis. *N Engl J Med*. 2009; 361: 756-765.