Denosis 60

Denosumab injection

Presentation
Denosumab 60: Each pre-filled syringe contains 1 ml sterile solution of Denosumab 60 mg.

Description
Denosumab is a human IgG2 monoclonal antibody with affinity and specificity for human RANKL (receptor activator of nuclear factor kappa-B ligand). Denosumab binds to RANKL, a transmembrane or soluble protein essential for the formation, function, and survival of osteoclasts, the cells responsible for bone resorption. Denosumab prevents RANKL from activating its receptor, RANK, on the surface of osteoclasts and their precursors. Prevention of the RANKL/RANK interaction inhibits osteoclast formation, function, and survival, thereby decreasing bone resorption and increasing bone mass and strength in both cortical and trabecular bone.

Indications and Uses
Denosumab is a RANK ligand (RANKL) inhibitor indicated for:
Treatment of postmenopausal women with osteoporosis at high risk for fracture
Treatment to increase bone mass in men with osteoporosis at high risk for fracture
Treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for nonmetastatic prostate cancer
Treatment to increase bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer

Dosage and Administration
The recommended dose of Denosumab is 60 mg administered as a single subcutaneous injection once every 6 months. It should be administered via subcutaneous injection in the upper arm, the upper thigh, or the abdomen. All patients should receive calcium 1000 mg daily and at least 400 IU vitamin D daily.
Renal Impairment:
No dose adjustment is necessary in patients with renal impairment. Patients with creatinine clearance < 30 mL/min or receiving dialysis are at risk for hypocalcemia.
Hepatic Impairment:
No clinical studies have been conducted to evaluate the effect of hepatic impairment on the pharmacokinetics of Denosumab

Side-effects
Postmenopausal osteoporosis: Most common adverse reactions (> 5% and more common than placebo) were: back pain, pain in extremity, hypercholesterolemia, musculoskeletal pain, and cystitis. Pancreatitis has been reported in clinical trials
Male Osteoporosis: Most common adverse reactions (> 5% and more common than placebo) were: back pain, arthralgia, and nasopharyngitis
Bone loss due to hormone ablation for cancer: Most common adverse reactions (≥ 10% and more common than placebo) were: arthralgia and back pain. Pain in extremity and musculoskeletal pain have also been reported in clinical trials

Contraindications
Hypocalcemia
Pregnancy
Known hypersensitivity to Denosumab

Precaution
Same Active Ingredient: Patients receiving Denosumab 60 mg should not receive Denosumab 120 mg
Hypersensitivity including anaphylactic reactions may occur. Treatment should be discontinued permanently if a clinically significant reaction occurs.
Hypocalcemia: Must be corrected before initiating Denosumab. May worsen, especially in patients with renal impairment. Patients should be adequately supplemented with calcium and vitamin D.
Osteonecrosis of the jaw: Has been reported with Denosumab. Patients should be monitored for symptoms.
Atypical femoral fractures: Have been reported. Patients with thigh or groin pain should be evaluated to rule out a femoral fracture.
Serious infections including skin infections: May occur, including those leading to hospitalization. Patients should be advised to seek prompt medical attention if they develop signs or symptoms of infection, including cellulitis.
Dermatologic reactions: Dermatitis, rashes, and eczema have been reported. Discontinuing Denosumab should be considered if severe symptoms develop.
Severe Bone, Joint, Muscle Pain may occur. Use should be discontinued if severe symptoms develop.
Suppression of bone turnover: Significant suppression has been demonstrated. Patient should be monitored for consequences of bone oversuppression.

Pregnancy and Lactation
Pregnancy Category X
Denosumab is contraindicated in women who are pregnant. It may cause fetal harm when administered to a pregnant woman.
Lactation
It is not known whether Denosumab is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants from Denosumab, a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use
Denosumab is not recommended in pediatric patients. Safety and effectiveness of Denosumab have not been established in pediatric patients.

Use in Males
Denosumab may cause fetal harm. The extent to which Denosumab is present in seminal fluid is unknown. There is a potential for fetal exposure to Denosumab when a man treated with it has unprotected sexual intercourse with a pregnant partner. The risk of fetal harm is likely to be low. Men being treated with Denosumab who have a pregnant partner should be advised of this potential risk.

Drug interactions
In subjects with postmenopausal osteoporosis, Denosumab (60 mg subcutaneous injection) did not affect the pharmacokinetics of Midazolam, which is metabolized by cytochrome P450 3A4 (CYP3A4), indicating that it should not affect the pharmacokinetics of drugs metabolized by this enzyme in this population.

Commercial pack
Denosis 60: Each box contains 1 pre-filled syringe of Denosumab 60 mg

Manufactured by
Incepta Pharmaceuticals Ltd
Savar, Dhaka, Bangladesh
www.inceptapharma.com

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