Bonizol™

Zoledronic Acid 5 mg

Please read this entire leaflet carefully before you start taking this medicine:

1. Keep this leaflet. You may need to read it again.
2. If you have further questions, please ask your doctor.
3. If any of the side effects get serious, or if you notice any side effects not listed in this leaflet, please tell your doctor.

Composition

Bonizol™: Each 100 ml solution contains 5 mg Zoledronic Acid INN Anhydrous which is equivalent to 5.330 mg Zoledronic Acid Monohydrate.

Pharmacology

The active ingredient in **Bonizol™** is Zoledronic acid, which belongs to a group of medicines called bisphosphonates. It is an inhibitor of osteoclast mediated bone resorption. The action of bisphosphonates on bone is based on their high affinity for mineralized bone. Intravenously administered Zoledronic acid is rapidly distributed to bone. Zoledronic acid is not metabolized and is excreted unchanged via the kidney.

Osteoporosis: Osteoporosis is a disease which causes bones to become less dense, gradually making them weaker, more brittle and likely to break. This is common in women after menopause, when a woman's ovaries stop producing the female hormone, oestrogen, which keeps bones healthy. Osteoporosis also occurs in men and women with increasing age. Broken bones may result from injury or simple falls. Breaks may occur during normal everyday activity, such as lifting, or from minor injury that would not ordinarily fracture normal bone. Fractures in people with osteoporosis usually occur at the hip, spine or wrist. These can lead not only to pain, but also to considerable deformity and disability, such as stoped posture from curvature of the spine, and loss of mobility.

Indication

- Treatment of osteoporosis in postmenopausal women to reduce the incidence of hip, vertebral and non‑vertebral fractures.
- Treatment of osteoporosis in men.
- Treatment of Paget's disease of bone.
- Treatment and prevention of glucocorticoid‑induced osteoporosis.
- Prevention of clinical fractures in patients after hip fracture.
- Prevention of clinical fractures after a hip fracture.

How does it work

Zoledronic Acid works by slowing down bone resorption, which allows the bone-forming cells time to rebuild normal bone. This allows bone remodelling to go back to normal and protects the bones from being weakened.

Dosage & Administration

Treatment of postmenopausal osteoporosis:

Recommended dose is a single intravenous infusion of 5 mg Zoledronic Acid administered once a year. Adequate supplemental Calcium and Vitamin-D intake is important in women with osteoporosis if dietary intake is inadequate.

Prevention of clinical fractures after a hip fracture:

Recommended dose is a single intravenous infusion of 5 mg Zoledronic Acid administered once a year. In patients with a recent low-trauma hip fracture. It is recommended to give the first Zoledronic Acid infusion two or more weeks after hip fracture repairs. It is also recommended to have a loading dose of 50,000 to 1, 25,000 IU of Vitamin D given orally or via intramuscular route prior to the first administration of Zoledronic Acid solution for infusion. Supplemental Calcium and Vitamin-D intake is important in men with osteoporosis if dietary intake is inadequate.

Treatment of osteoporosis in men:

For the treatment of osteoporosis in men, the recommended dose is a single intravenous infusion of 5 mg **Bonizol™** administered once a year. Adequate supplemental Calcium and Vitamin D intake is important in men with osteoporosis if dietary intake is inadequate.

Treatment and prevention of glucocorticoid-induced osteoporosis:

Recommended dose is a single intravenous infusion of 5 mg Zoledronic Acid administered once a year. Adequate supplement of Calcium and Vitamin-D intake is important in patients with osteoporosis if dietary intake is inadequate.

Treatment of paget's disease of bone:

Recommended dose is a single intravenous infusion of 5 mg Zoledronic Acid. Re-treatment with Zoledronic Acid may be considered in patients who have relapsed, based on increases in serum alkaline phosphatase, in patients who failed to achieve normalization of serum alkaline phosphatase, or in patients with symptoms, as dictated by medical practice 12 months after the initial dose.

In patients with paget's disease, adequate Vitamin-D intake is recommended in association with Zoledronic Acid administration. In addition, it is strongly advised that adequate supplemental calcium corresponding to at least 500 mg elemental calcium twice daily is ensured in patients with paget's disease for at least 10 days following Zoledronic Acid administration.

Treatment should be restricted to three annual doses.

Special dosage instruction

Patients with renal impairment:The use of Zoledronic Acid in patients with creatinine clearance <35 mL\min is not recommended due to limited clinical safety data in such patients. No dose adjustment is is necessary in patients with creatinine clearance >35 mL\min.

Patients with hepatic impairment: No dose adjustment is required for patients with hepatic impairment.

Elderly patients: No dose adjustment is required. However because decreased renal function occurs more common in the elderly, special care should be taken to monitor renal function.

Method of administration

Follow all directions given to you by your doctor carefully.

Bonizol™ should be administered intravenously via a infusion line, given at a constant infusion rate. The infusion time must not be less than 15 minutes. Two glasses of fluid (such as water) before and after the infusion are usually enough. This will help to prevent dehydration. You may eat normally on the day you are treated with **Bonizol™**.

Bonizol™ must not be mixed or given intravenously with any other medication and must be given through a separate infusion line at a constant infusion rate. If refrigerated, allow the refrigerated solution to reach room temperature before administration. Aseptic techniques must be followed during the preparation of the infusion. Any unused solution should be discarded. Only clear solution free from particles and discoloration should be used.

After opening, the solution is chemically and physically stable for at least 24 hours at 2° C to 8° C. From a microbiological point of view, the product should be used immediately. **Bonizol™** solution for infusion must not be allowed to come into contact with any Calcium or other divalent cation-containing solutions.

Contraindications

The drug is contraindicated in patients have hypersensitivity to the active substance or to any of the excipients or to any bisphosphonates, hypocalcaemia, renal impairment (creatinine clearance <35mL/min), current of recent uveitis, or a history of bisphosphonate-associated uveitis, pregnancy and lactation.

Precautions

Patients must be appropriately hydrated prior to administration of Zoledronic Acid. This is especially important in the elderly and for patients receiving diuretic therapy. Adequate hydration can be achieved by the patient drinking two glasses of fluid (such as water) before and after the infusion. Preexisting hypocalcaemia must be treated by adequate intake of Calcium and Vitamin-D before initiating therapy with Zoledronic Acid.

Drug interactions

Specific drug-drug interaction studies have not been conducted with zoledronic acid. Zoledronic acid is eliminated by renal excretion. Caution is indicated when Zoledronic Acid is administered in conjunction with drugs that can significantly impact renal function (e.g. aminoglycosides or diuretics that may cause dehydration).

Over dosage

Clinical experience with acute over dosage is limited. Patients who have received dosage higher than those recommended should be carefully monitored. In the event of overdose leading to clinically significant hypocalcaemia, reversal may be achieved with supplemental oral Calcium and/or an infusion to Calcium.

Breast feeding and Lactation

Breast feeding and lactating woman should not take this medicine. It is also not recommended for using children & adolescents below 18 years of age.

Side effects

The post-dose side-effects are fever, myalgia, flu-like symptoms, arthralgia and headache, the majority of which occur within the first 3 days following Zoledronic Acid administration. The majority of these symptoms were mild to moderate in nature and resolved within 3 days of the event onset. The incidence of these symptoms occurring within the first 3 days after administration of Zoledronic Acid, can be reduced with the administration of Paracetamol or Ibuprofen shortly following Zoledronic Acid administration. Severe and occasionally incapacitating bone, joint, and/or muscle pain have been infrequently reported in patients taking Zoledronic Acid.

How to store

Store below 30°C, away from light & moisture. Keep out of the reach of children.

How supplied

Bonizol™ solution for infusion: Each pack contains a single 100 ml glass bottle containing Zoledronic acid INN 5 mg.

Manufactured by

SQUARE
PHARMACEUTICALS LTD.
Kaliakoir, Bangladesh