



Effectiveness and Evaluation of a Pamidronate Drug Therapy for Treatment of Critical Hypercalcemia

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DESCRIPTION

Cancer cells in some tumors (most commonly breast, prostate, and lung) can spread to the bone, known as bone metastases. Multiple myeloma is a type of cancer that affects plasma cells in the bone marrow and directly affects bone. In both situations, cancer cells break down and wear away normal bone. The affected bones then become more brittle. Damage from cancer cells can be painful and even rupture. Pamidronate is a type of drug called bisphosphonate that is used to slow the destruction of bone by cancer cells. It can also be used to treat elevated calcium levels that can occur as a result of a cancer diagnosis. Pamidronate is used to treat excess calcium in the blood. It is also used to treat multiple myeloma (a tumor formed by cells in the bone marrow), and certain types of bone metastases (cancer that spreads to the bones).

Pamidronate is also used to treat Paget's disease (a condition in which bones are soft, weak, misshapen, painful, and easily broken). Pamidronate injection belongs to a class of drugs called bisphosphonates. It slows down the breakdown of bones, increases bone density (thickness), and reduces the amount of calcium released from bones into the blood. Pamidronate injection is provided as a solution (liquid) for slow intravenous injection over 2 to 24 hours. It is usually injected by a healthcare provider at a doctor's office, hospital, or clinic. It can be administered once every 3 to 4 weeks, once daily, for 3 consecutive days, or as a single dose that can be repeated after a week or more. The treatment plan will depend on the patient's condition. Pamidronate is injected directly into a vein. The doctor will decide how much and how often one should take this medicine. A doctor may ask a patient to take calcium and vitamin D supplements to support bone health. The patient

should drink plenty of fluids while taking this medicine. Aim to drink 8-10 glasses of non-alcoholic, decaffeinated liquids every day. Pamidronate may be given only once as a single dose.

Pamidronate can harm an unborn baby. Avoid pregnancy while using pamidronate and consult the doctor if a patient becomes pregnant. It is not known if pamidronate passes into breast milk or if it may harm a nursing baby. Do not breastfeed while using pamidronate. Rarely this drug can cause bone loss (osteonecrosis) in the jaw. Symptoms include jaw pain and numbness, red and swollen gums, loose teeth, and slow healing after dental treatment. Severe side effects of pamidronate include hives, difficulty breathing, swelling of the face, lips, tongue, or throat, high fever, new or unusual thigh or hip pain, seizures, little or no urination, swollen feet or ankles, fatigue, shortness of breath, leg pain convulsions, constipation, and arrhythmia.

Pamidronate is only part of a complete treatment program and may also include dietary changes and taking calcium and vitamin supplements. Disposable needles and syringes should be used only once. Follow all state and local laws regarding the disposal of used needles and syringes. Use a puncture-resistant sharps disposal container (ask the pharmacist where to get it and how to dispose of it). Keep this container out of reach of children and pets. The dosage of this drug varies from patient to patient. The amount of medicine a person takes depends on the strength of the medicine. Also, the number of daily doses, intervals between doses, and duration of use depend on the medical problem for which the drug is being used. Drug interactions can change how a drug works or increase the risk of serious side effects. This medicine does not include all possible drug interactions.

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