

ZOLEDRONIC ACID - SAFE PRESCRIBING - BONE UP

- ▶ CHECK RENAL FUNCTION PRIOR TO ADMINISTRATION
- ▶ ENSURE THE PATIENT IS ADEQUATELY HYDRATED – 500ml ORALLY BEFORE INFUSION
- ▶ CHECK CALCIUM AND VITAMIN D STATUS AND PRESCRIBE SUPPLEMENTS
- ▶ ASK THE PATIENT TO ARRANGE A DENTAL CHECK PRIOR TO TREATMENT
- ▶ GIVE OVER AT LEAST 15MINS, NO MORE THAN ONCE A YEAR
- ▶ INFORM THE PATIENT ABOUT POST-DOSE SYMPTOMS

CHECK RENAL FUNCTION

Check creatinine clearance (CrCl) prior to every infusion, and if it is below 35ml/min, do not administer¹. Regularly review other medicines that may compromise renal function^{1,2} e.g. diuretics and ask about NSAID use. Other oral bisphosphonates must be discontinued prior to treatment,³ but no wash-out period is required¹. Renal impairment has been observed following a single dose of zoledronic acid¹. A rapid infusion time (less than 15mins) or high dose will increase the risk; never exceed 5mg per year³.

ENSURE THE PATIENT IS ADEQUATELY HYDRATED

To reduce the risk of renal impairment, two glasses of water (or 500ml) should be consumed a few hours before treatment. The patient should also be advised to maintain adequate fluid intake post treatment¹. This is especially important if the patient is elderly and/or taking diuretics¹.

CHECK CALCIUM AND VITAMIN D STATUS

Zoledronic acid must not be given to patients with hypocalcaemia¹ or vitamin D deficiency. Vitamin D deficiency can result in serious hypocalcaemia following IV bisphosphonates⁴. If the patient is not already taking regular vitamin D, prescribe supplements prior to administration¹.

Cholecalciferol 2x 1.25mg tablets during the week before the infusion and 1.25mg per month thereafter^{4,5}

Check serum calcium is within the normal range (2.0-2.6mmol/L) prior to infusion. Those at greatest risk of hypocalcaemia are patients with vitamin D deficiency as above, recent thyroid surgery or intestinal calcium malabsorption (e.g. coeliac disease).

Patients with Paget's disease also need to have calcium supplements prescribed (equivalent to 500mg elemental calcium twice daily) for 10 days following the infusion;¹ they are at greater risk of transient hypocalcaemia (which peaks within 10 days of infusion).

Inform all patients about the symptoms of hypocalcaemia (numbness or tingling especially around the mouth, and muscle spasms or cramps)³. Tell the patient to go to hospital if these symptoms occur.

ASK THE PATIENT TO ARRANGE A DENTAL CHECK-UP

Osteonecrosis of the jaw (ONJ) is very rare and has mostly been reported in cancer patients taking bisphosphonates (who are also receiving chemotherapy and corticosteroids) and in those with poor oral hygiene or undergoing dental procedures such as tooth extraction¹.

While on treatment, patients should avoid invasive dental procedures if at all possible. A dental examination (with preventive dentistry) is recommended prior to therapy in those with risk factors¹. Regularly ask the patient about any loose teeth, and pain, swelling or numbness in their jaw.

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ZOLEDRONIC ACID

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GIVE OVER AT LEAST 15MINS, NO MORE THAN ONCE A YEAR

Contact Novartis for an information pack on the administration of Aclasta®, or visit www.aclasta.co.nz. A 5mg/100mL infusion is to be given via a vented infusion line (at a constant rate) over **at least** 15mins into a peripheral vein⁴. For the treatment of osteoporosis this should be given no more than once a year depending on clinical assessments, including bone turnover markers and DEXA scans⁶. Those with Paget's disease require infusions much less frequently (e.g. every 5 years)⁴. Note: Funding does not routinely include the cost of giving the infusion⁷.

INFORM THE PATIENT ABOUT POST-DOSE SYMPTOMS

Within the first three days following the infusion, up to 30% of patients experience flu-like symptoms, fever, myalgia, arthralgia or headache^{1,4}. These symptoms usually decrease with subsequent doses, and may be relieved with paracetamol¹. Ensure the patient has a carer to drive them home after the infusion.

Note: Zoledronic acid has been associated with an increase in the incidence of serious atrial fibrillation (1.3%) compared to placebo (0.5%)⁸. The mechanism of this is unknown, but in the majority of the cases the events occurred more than 30 days after the infusion⁸. Medsafe is continuing to monitor the long-term safety of all bisphosphonates⁹.

ACKNOWLEDGEMENTS

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