

PATIENT INFORMATION ON BISPHOSPHONATES (INTRAVENOUS/IV)

Brand names: Aclasta, Deztron, Osteovan,
Ostira, Pamisol, Zoledasta, Zometa

This information sheet has been produced by the Australian Rheumatology Association to help you understand the medicine that has been prescribed for you. It includes important information about:

- **how you should take your medicine**
- **the possible side effects**
- **other precautions you should take while you are taking bisphosphonates.**

Please read it carefully and discuss it with your doctor. Please read it carefully and discuss it with your doctor.

IMPORTANT THINGS TO REMEMBER

- While you are being treated with an intravenous bisphosphonate you should see your doctor regularly to make sure you are getting the most benefit from the treatment and to minimise any possible side effects.
- If you are concerned about any side effects, you should contact your doctor as soon as possible.

For more information about OSTEOPOROSIS see the Healthy Bones Australia website healthybonesaustralia.org.au or phone Healthy Bones Australia on 1800 242 141.

What are bisphosphonates?

Bisphosphonates are medicines used to treat bone diseases such as osteoporosis and Paget's disease. Zoledronate (brand name Aclasta) and pamidronate (brand name Pamisol) are the most commonly prescribed intravenous bisphosphonates in Australia.

Osteoporosis is a common disease that leads to bones becoming weak and brittle, making them more likely to break, even during normal activities (not just from a fall). These fractures

can be painful and make it harder for people to do their everyday tasks. In osteoporosis, bisphosphonates reduce the risk of a broken bone or fracture.

In Paget's disease, the formation of abnormal bone causes deformity and pain. Bisphosphonate medicines can help this.

How do they work?

Bone undergoes constant turnover with old bone breaking down and new bone being formed to take its place. This usually happens in a balanced way. If the cycle becomes unbalanced, bone is broken down faster than it is replaced. This leads to osteoporosis.

Bisphosphonates are medicines that slow or stop the bone breaking down. As a result, bone density may increase over time, so the risk of fracture is reduced.

What benefit can you expect from your treatment?

Since osteoporosis doesn't usually have any symptoms such as pain (until a fracture occurs) you will not 'feel' any immediate benefit from your treatment with bisphosphonates.

If used for Paget's disease, bone pain may lessen with time. Your doctor will explain the likely benefits relevant to you.

You may be asked to have tests to check the effect of treatment on your bones. For example, a bone mineral density test (DEXA scan) is usually done after one to two years of treatment. This is a type of x-ray, which involves a very small amount of radiation.

Tests of urine or blood are sometimes used to measure the effects of treatment on bone formation and breakdown.

How are IV bisphosphonates given?

Bisphosphonate injections are given as a drip (infusion) into the vein. The infusion will take between 15 minutes and two hours depending on



the type of bisphosphonate being given and the condition being treated.

After the infusion, you may have to remain at the clinic for up to an hour to monitor for reactions.

How often bisphosphate infusions are given depends on the type prescribed and the condition being treated e.g. some are given once every 12 months.

Bisphosphonate injections come in different doses. The dose and how often it is given will depend on the type of bisphosphonate being used and the condition being treated.

Can other medicines be given with bisphosphonate injections?

It is safe to use most other medicines when you are having bisphosphonate infusions (see Precautions on page 3).

You may be prescribed paracetamol and an anti-allergy tablet on the day of your infusion.

It is generally recommended that you take a calcium and vitamin D supplement.

How long is the treatment continued?

Osteoporosis treatment with intravenous bisphosphonates is usually given for three to six years. Your doctor will review your progress each year.

For Paget's disease, the treatment plan may be shorter.

Are there any side effects?

Most people who have bisphosphonate injections do not experience side effects. Tell your doctor if you are concerned about possible side effects.

A reduction in dose or change to another medicine may minimise the side effects so that you can continue to have treatment for your bones.

Most common possible side effects

- The most common side effect is a *rise in temperature*, typically at the start of treatment, with *flu-like symptoms* such as aching muscles. This usually decreases with subsequent doses. Giving the medicine slowly and taking regular paracetamol for 24-48 hours reduces the likelihood of this happening.
- Some *irritation* at the site of the infusion may occur.

- Intravenous bisphosphonates can cause *nausea, loss of appetite* and a *skin rash*. These effects will not last for long.

Less common or rare possible side effects

- Bisphosphonates may cause *mouth ulcers, aching muscles, joints and/or bones* and *swelling of joints*.
- A very rare but possibly serious side effect of bisphosphonates is osteonecrosis of the jaw (ONJ), which happens in about 1 out of every 10,000 to 100,000 patients each year. ONJ causes jaw pain and usually happens after dental work that doesn't heal well. For most people having bisphosphonate injections, the benefits outweigh the small risk of ONJ. To be safe, it's recommended to treat any dental infections and complete any planned tooth extractions before starting bisphosphonate treatment.
- *Blurred vision, pain or redness* in the eye (called iritis) may occur and may need to be treated with eye drops. If any of these symptoms occur see your doctor.
- An increased frequency of *heart palpitations* (feeling of fast or irregular heartbeat) has been seen in some patients with zoledronate.
- *Worsening kidney function*. As a precaution it is advised that patients with severe (stage 4) kidney disease should not receive intravenous bisphosphonates.

What precautions are necessary?

Care of your teeth and mouth

- Before starting bisphosphonate treatment, have your teeth checked by your dentist. If surgery on the jawbone is necessary, this should be done before you start the treatment.
- While having treatment with bisphosphonates, you should maintain good oral hygiene and have regular dental check-ups.

Blood tests

- Kidney function and blood calcium levels should be checked before treatment.

Use with other medicines

- You should tell your doctor (including your general practitioner, rheumatologist and others) about all medicines you are taking or plan to take. This includes over-the-counter or herbal/naturopathic medicines. You

should also mention your treatment when you see other health professionals.

- Bisphosphonates should not be taken with other osteoporosis medicines such as denosumab (Prolia), raloxifene (Evista), teriparatide (Forteo) or romosozumab (Evenity).
- The risk of side effects from the low doses of aspirin used to prevent heart attack and strokes is not increased when taken with bisphosphonates.
- The pain reliever paracetamol and combined medicines such as Panadeine and Panadeine Forte can be used while taking bisphosphonates provided you take them as directed.

Use in pregnancy and breastfeeding

- Bisphosphonates are not recommended to be taken during pregnancy or when breastfeeding. If you are planning a family or become pregnant you should discuss this with your doctor as soon as possible.

Questions?

If you have any questions or concerns write them down and discuss them with your doctor.

Your doctor's contact details

You should see your rheumatologist regularly to make sure the treatment is working and to minimise any possible side effects.

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