



PATIENT INFORMATION ON BISPHOSPHONATES

(INTRAVENOUS / IV)

(Examples of brand names: Aclasta, Aredia)

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.

Important things to remember

- While you are being treated with an intravenous bisphosphonate you should see your specialist/GP 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 specialist/GP as soon as possible.

For more information about OSTEOPOROSIS see the Osteoporosis Australia website
<http://www.osteoporosis.org.au/>
or phone Osteoporosis 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 Aredia) are the most commonly prescribed intravenous bisphosphonates in Australia.

Osteoporosis is a common condition that causes bones to become fragile and brittle so that they break (fracture) more easily.

Fractures may be painful and restrict a person's ability to carry out their normal daily tasks. Using bisphosphonate in osteoporosis helps reduce the risk of a fracture happening.

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

How do they work?

Bone is constantly changing with old bone being removed 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 will reduce.

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 should lessen with time. Your specialist/GP will explain the likely benefits for you.

You may be asked to have tests to check the effect of treatment on your bones. For example, a bone mineral density test is usually done after one to two years of treatment.

Sometimes tests of urine or blood are also 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 20 minutes and four 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 observation for at least an hour in case of side effects.

Bisphosphonate injections may be given once a year or every three months. This depends on which bisphosphonate, what dose and the condition being treated.

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 injection?

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

Your specialist/GP may suggest that you take paracetamol and an anti-allergy tablet on the day of your infusion.

Your specialist/GP will usually strongly recommend that you take a calcium and vitamin D supplement.

How long is the treatment continued?

For osteoporosis treatment with intravenous bisphosphonates is usually given for two to five years. Your specialist/GP 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 specialist/GP 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. Rarely the fever may last for one or two days. Giving the medicine slowly and taking regular paracetamol for 24-48 hours reduces the likelihood of this happening.
- Some *irritation* at the site of injection may occur.
- Intravenous bisphosphonates can cause *nausea, loss of appetite* and a *skin rash*. These effects will not last for long.
- Lowered blood calcium levels can occur after the infusion. It is important that your levels are checked before treatment.

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 side effect with intravenous bisphosphonates is *osteonecrosis of the jaw (ONJ)*. This presents with jaw pain and exposed bone in the mouth. It usually occurs after dental work that has not healed properly. There are few reports of ONJ in patients with osteoporosis. It is usually seen in cancer patients receiving high dose/monthly treatment. For most patients receiving bisphosphonate injections for osteoporosis, the benefits (reducing fracture risk) outweigh the low risk of ONJ. As a precaution, it is recommended that planned dental work (fillings or extractions) be performed before starting bisphosphonate treatment. Also, any dental infections should be treated promptly.
- *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 specialist/GP

- 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.
- Longterm use of bisphosphonates (over eight years) has been associated with *atypical femur fractures*. Always tell your specialist/GP about pain in the thigh as this may be a warning signal of such fractures.

baseline kidney function test is also recommended.

Use with other medicines

- You should tell your specialist/GP 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 anti-osteoporosis medicines such as denosumab (Prolia), raloxifene (Evista), strontium (Protos) or teriparatide (Forteo).
- 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 simple pain reliever paracetamol, and combined medicines such as Panadeine and Panadeine Forte, can be used while you are receiving bisphosphonate injections.

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 specialist/GP as soon as possible.

What precautions are necessary?

Care of your teeth and mouth

- Before starting bisphosphonate treatment have your teeth checked by your dentist. If surgery (such as extraction) is necessary, this should be done before you start the treatment.
- While having treatment with bisphosphonates you should maintain good oral hygiene (regular brushing and flossing of teeth) and have regular dental checkups.

Blood tests

Kidney function and blood calcium levels should be checked before treatment is started and a

Questions?

If you have any questions or concerns write them down and discuss them with your specialist/GP.

Your specialist/GP's contact details

If you are having IV bisphosphonates you should see your rheumatologist regularly to make sure the treatment is working and to minimise any possible side effects.

How to help us help you

Sign up to the ARAD project now!

The Australian Rheumatology Association collects information on how well these drugs work and how often they cause problems.

The best way to get this information is from you!

Contact us in any of the following ways:

Email: ARAD@monash.edu
Telephone: Sydney 02 9463 1889
 or Melbourne 03 9508 3424
Fax: 1-800-022-730
Visit our website: www.ARAD.org.au

The information in this sheet has been obtained from various sources and has been reviewed by the Australian Rheumatology Association. It is intended as an educational aid and does not cover all possible uses, actions, precautions, side effects, or interactions of the medicines mentioned. This information is not intended as medical advice for individual problems nor for making an individual assessment of the risks and benefits of taking a particular medicine. It can be reproduced in its entirety but cannot be altered without permission from the ARA. The NHMRC publication: *How to present the evidence for consumers: preparation of consumer publications* (2000) was used as a guide in developing this publication.