

Patient advice and liaison service (PALS)

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Zoledronic acid infusion

A patient's guide



What is osteoporosis?

Osteoporosis occurs when the struts which make up the mesh-like structure within bones become thin causing them to become fragile and break easily, often following a minor bump or fall. These broken bones are often referred to as 'fragility fractures'. The terms 'fracture' and 'broken bone' mean the same thing. Although fractures can occur in different parts of the body, the wrists, hips and spine are most commonly affected. It is these broken bones or fractures which can lead to the pain associated with osteoporosis. Spinal fractures can also cause loss of height and curvature of the spine.

What is zoledronic acid?

Zoledronic acid is one of the bisphosphonate drug treatments which are used to reduce the risk of broken bones in people with osteoporosis. It is given as an intravenous infusion (drip), 5mg once a year, usually in a hospital clinic. The drug is given slowly, typically over 20 minutes via a needle inserted into a vein. Your doctor will usually only recommend this infusion if bisphosphonates in tablet form are unsuitable for you. If zoledronic acid is prescribed and you have recently broken your hip, it is recommended that zoledronic acid is given two or more weeks after your hip repair surgery.

Notes

5. Understand the risk of side effects and what can be done to reduce them

As with any drug, there are potential side effects with zoledronic acid. It is important to remember that. Most people will not experience side effects or if they do, they are short lived. If you are taking medications for other conditions, it is important to establish that it is not these that are causing your side effects.

What potential side effects can zoledronic acid cause?

-Fever, chills, pain in the muscles or joints, and headache are common particularly during first infusion. Subsequent infusions are usually much less severe. They generally go away after the first couple of days following the zoledronic acid. Your doctor can recommend a mild pain reliever such as paracetamol to reduce these side effects. Try not to plan any strenuous activities for the few days following your infusion in case you experience this reaction.

-Osteonecrosis of the jaw. This is an extremely rare jaw problem in which there is delayed healing in the mouth usually following invasive dental procedures. The general advice is to maintain good oral hygiene and receive routine dental check-ups.

Why do I need a drug treatment for osteoporosis and how do the bisphosphonates work?

Drug treatments are prescribed if you have osteoporosis and are at a high risk of broken bones. These treatments help strengthen your bones and reduce your risk of having fractures.

They do not help the pain that occurs when bones break. Bone is constantly being broken down (resorption) and rebuilt (formation) by specialist bone cells. This is called bone remodelling. When this becomes out of balance and more bone is broken down than is rebuilt osteoporosis occurs. Bisphosphonates such as zoledronic acid, known as antiresorptive drugs, inhibit the cells that wear down bone (osteoclasts) and consequently improve bone strength.

How can I get the most out of my drug treatment?

1. Be informed

Find out about your drug treatment so that you can be involved in decisions being made and you will know what to expect. Talk to your doctor and/ or pharmacist if you have any questions or concerns. It is important that you gather as much information as possible and discuss any worries you may have prior to having the first infusion.

2. Make sure you have enough calcium and vitamin D

It is important that you have adequate calcium and vitamin D whilst taking zoledronic acid. Many people take these in supplement form if they are not able to get sufficient calcium from their diet or, in the case of vitamin D, safe sunlight exposure. Your doctor may recommend blood tests prior to the infusion to check that your kidneys are functioning correctly and that your calcium and vitamin D levels are satisfactory. Make sure you drink enough fluids – at least one or two glasses – before and after the infusion to prevent dehydration.

3. Continue to take your treatment regularly for the correct length of time

Zoledronic acid is generally prescribed for three years in the first instance, so you need to be happy with the treatment. The current advice from the UK drug regulatory organisation (MHRA) is for a regular formal treatment review, primarily because of the potential (but rare) risk of atypical fractures. This is likely to be after 3 years of treatment. At this review your doctor will assess whether the drug treatment is still needed and also that the benefits of continuing with treatment outweigh any potential harm.

You may be advised to continue to take a treatment for osteoporosis (either zoledronic acid or an alternative treatment), have a 'pause' in your treatment or be advised to stop taking it altogether. Because of its structure zoledronic acid will continue to have an effect on bone and provide some benefit even after it is stopped. Your doctor will be able to advise you on what is best for you based on your individual circumstances.

4. Lead a healthy lifestyle to keep your bones strong

Factors that can help to maintain healthy bones are a well-balanced diet with adequate calcium rich foods, safe exposure to sunlight to obtain vitamin D, regular weight bearing exercise, avoiding smoking and keeping alcohol consumption within the recommended limits.