

## Zoledronic acid in advanced breast cancer

Zoledronic acid is a bisphosphonate. This is treatment which works by slowing down the rate of bone change. In the bone there are 2 types of bone cells; osteoclasts which break down old bone, and osteoblasts which build up new bone. Zoledronic acid stops osteoclast bone resorption and reduces bone mineral loss. This treatment helps to ensure the balance of these cells is correct and bone stays healthy.

Some types of cancer can change the rate of bone turnover. This can cause a number of problems, such as:

- bone pain
- fractures
- release of too much calcium into the blood stream (this is called tumour induced hypercalcaemia)

### Your treatment

Zoledronic acid is given into the vein as an infusion (drip) through a fine tube (cannula) over 15 minutes. Your medical team will decide how many infusions you need and how often you should have them. You will have a routine blood test before the start of each treatment. Treatment is usually every 3 - 4 weeks.

You may be advised to have a line fitted or an implantable/subcutaneous port (portacath) to aid the delivery of your intravenous treatment. This will be organised by the clinic if it is required. Please ask your team for further information. Your line or port needs to be removed after all your intravenous treatments have finished. If you have not received an appointment for this, please contact the procedure team on **0161 446 3916**.

This treatment can have serious or possibly life-threatening side effects. It is very important that you report side effects straight away. Don't delay, if you feel unwell, please ring The Christie Hotline on **0161 446 3658**. The lines are open 24 hours a day.

### Possible side effects

This treatment can cause many different side effects. Some are more likely to occur than others. Everyone is different and not everyone gets all the side effects. Most side effects are usually temporary, but in some rare cases they can be life-threatening. It is important to tell your hospital doctor or nurse about any side effects so they can be monitored and, where possible, treated.



## Common side effects (more than 1 in 10)

### • Flu-like symptoms

Zoledronic acid may cause flu like symptoms such as fever, fatigue, weakness, drowsiness, headache, chills and aches in your muscles, joints and bones. In most cases you do not need any specific treatment and the symptoms should improve after a short time. However, taking paracetamol can be helpful with these symptoms. A dose pre-infusion and regular paracetamol 2 days post infusion may benefit you.

### • Low calcium levels in the blood

Please contact The Christie hotline if you have spasms, twitches, or cramps in your muscles, and/or numbness or tingling in your fingers, toes or around your mouth. You may have low levels of calcium in your blood. Your clinical team will monitor this and can offer you treatment if this happens. However, you may be given calcium and vitamin D combination supplements as a preventative measure (after your baseline bloods have been checked) to ensure your calcium remains in the normal range. These will continue for the entire time you are on zoledronic acid.

## Uncommon side effects (less than 1 in 10)

### • Nausea and vomiting, loss of appetite

The severity of this varies from person to person but most people do not have a problem with nausea and vomiting. If you do have these symptoms please tell your clinical team. They can give you anti-sickness medication to take at home.

### • Skin reactions

A skin reaction is not very common. However, sometimes the skin around the infusion site can become red and swollen. Some people may develop a rash and itching. If this happens please tell your clinical team.

### • Conjunctivitis

If you develop red, sore and itchy eyes, please speak to your clinical team.

### • Changes in renal function

You will have a blood test each time you have an infusion of zoledronic acid. This test is to ensure your corrected calcium and kidney function are within the normal range. Your clinical team will monitor this and can offer you treatment if this happens.

## Rare side effects (less than 1 in 100)

### • Osteonecrosis of the jaw (Warning!)

Very occasionally, a rare side effect can occur with zoledronic acid, when there is necrosis (a loss of jaw bone) or a breakdown of the jaw bone. It is called osteonecrosis of the jaw and can be a serious condition. Some of the symptoms are:

- pain, swelling or infection of the gums
- loosening of the teeth
- poor healing of the gums
- numbness or feeling of heaviness in the jaw

## Dental guidance

### What to do before commencing zoledronic acid

It is essential that you have a dental examination with a dentist before you start treatment with zoledronic acid. If you need any dental work, this must be done **before** you start this treatment.

## **If you need any dental treatment while taking zoledronic acid**

While you are having treatment with zoledronic acid, you should try to avoid invasive dental procedures for example having teeth removed. For non-invasive procedures such as tooth fillings, please speak to your dentist or clinical team.

If you do have to have teeth removed while you are having treatment with zoledronic acid or soon after finishing treatment with zoledronic acid, it is important to discuss this with your clinical team first. They may be able to offer advice on the most appropriate way to proceed.

## **Dental health and check ups**

Try to keep your mouth clean and healthy at all times. You can continue to see your dentist for your normal, regular check-ups and cleaning (but not treatment). You can also see your dental hygienist. Show them this leaflet as it is important that the dentist and dental hygienist know that you are receiving zoledronic acid.

If you have any of the symptoms listed above or any other dental problems tell your clinical team immediately.

## **Atypical fractures**

Unusual fractures of the hip bone have been reported in patients receiving bisphosphonates. This usually occurs after very long term treatment with a bisphosphonate for osteoporosis. Such fractures are not usually the result of trauma. Please report any unusual hip, groin or thigh pain developed whilst on treatment.

## **Late side effects**

With prolonged use of bisphosphonates some side effects may become evident only after a number of years. In reaching any decision with you about treatment, the potential benefit you receive from treatment will be weighed against the risks of serious long term side effects. If any of these problems specifically applies to you, the clinical team will discuss these with you and note this on your consent form.

## **Flu vaccinations**

We advise that all patients receive a flu vaccination when this is offered.

## **COVID-19 vaccinations**

We advise that all patients receive a COVID-19 vaccination when this is offered.

However, if you are thinking of having any other vaccines, check with your Christie clinical team first, because some vaccines should be avoided.

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## Contacts

If you have any general questions or concerns about your treatment, please ring:

Administration enquiries - **0161 918 7606/7610**

Chemotherapy nurse - **0161 918 7171**

Clinical trials unit - **0161 918 7663**

For advice ring The Christie Hotline on **0161 446 3658** (24 hours, 7 days a week)

Your consultant is: .....

Your hospital number is: .....

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The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **the-christie.patient.information@nhs.net**

For information and advice visit the cancer information centres at Withington, Oldham, Salford or Macclesfield. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for  
urgent support and specialist advice  
**The Christie Hotline: 0161 446 3658**  
Open 24 hours a day, 7 days a week