



FACTSHEET

a programme of
 irish cancer society

information on **drug therapy**

Bisphosphonates

Bisphosphonates are drugs given to help protect bones against the effects of cancer and other conditions such as osteoporosis. Osteoporosis weakens bones, this can cause bones to thin, making breaks likely. This factsheet aims to give you information on the group of drugs called bisphosphonates in relation to secondary cancer in the bone. It explains how they work, how they are given and what side effects may occur. We recommend that you read it along with our factsheet on **secondary bone cancer**.

HOW DO BISPHTHOSPHONATES WORK?

Normal bone contains 2 types of living cells, osteoclasts and osteoblasts. These cells help in the formation of bone.

Osteoclasts destroy and remove small amounts of old bone and osteoblasts help build up new bone. If cancer spreads to the bone, it makes chemicals that disturb the building of bone. As a result more bone is broken down than is being replaced. Bisphosphonates work by

reducing the amount and action of the osteoclasts slowing down bone breakdown.

This process can cause problems such as weakening of the bone leading to fractures (breaks) and pain.

Bisphosphonates are useful in controlling bone pain and in reducing high levels of calcium in the bloodstream, this condition is known as

hypercalcaemia. This occurs when too much calcium escapes from the damaged bone into the bloodstream.

High calcium levels in the bloodstream can cause problems such as nausea (feeling sick), vomiting, constipation, drowsiness and feeling very thirsty.

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WHO MIGHT BE OFFERED BISPHOSPHONATES?

Bisphosphonates are often used to treat people with secondary bone cancer and are usually given with other cancer treatments, for example chemotherapy or hormone treatment. Secondary bone cancer occurs when the original cancer (the primary) spreads to other parts of the body through the lymphatic or blood system. The bone is the most common site of secondary cancer from the breast.

Bisphosphonates may also be given to people with primary breast cancer as part of a clinical trial, looking at their role in preventing Secondary Bone Cancer and in preventing Osteoporosis.

HOW ARE BISPHOSPHONATES GIVEN?

Bisphosphonates are most commonly given into a vein (intravenously). This is given as a drip (infusion) and can take from 15 minutes up to 3 hours. This depends on the type of bisphosphonate that has been recommended for you.

Bisphosphonates can also be given in tablet form. They are best absorbed on an empty stomach. Certain medications such as antibiotics can also affect how they are absorbed so it is important to get instructions from your doctor or pharmacist before taking them.

There are many types of bisphosphonates given for

secondary bone cancer. Your doctor will decide on the most suitable one for your condition. Examples include sodium clodronate (bonefos), disodium pamidronate and zoledronic acid (zometa).

CALCIUM AND VITAMIN D SUPPLEMENTS

With some Bisphosphonates you will be prescribed a calcium and Vitamin D supplement to prevent low calcium levels. It is also advisable to have a well balanced diet, including calcium rich foods. Calcium is found in dairy products, green leafy vegetables, tinned fish and Vitamin D helps the body absorb calcium and is found in eggs, butter, oily fish and dried fruit.

HOW LONG CAN BISPHOSPHONATES BE GIVEN FOR?

If you are having bisphosphonates to strengthen bones or to reduce pain, then you may need to take them as long as they are working for you. They may be given as an infusion every 3 to 4 weeks or as a tablet taken each day.

WHAT ARE THE SIDE EFFECTS OF BISPHOSPHONATES?

Like any treatment, bisphosphonates can cause side effects. Everyone reacts differently to drugs and some people have more side effects

than others. The more common side effects usually occur within the first 48 hours after treatment and usually settle on their own. If you are concerned about side effects talk to your doctor or nurse.

Common side effects include headache, bone or muscle pain and discomfort in the joints. You may experience flu like symptoms such as fever, hot flushes or chills but these should only last a short while. If symptoms do not get better tell your nurse or doctor. Less common side effects include inflammation at the injection site that can become red or painful. You may also experience diarrhoea, nausea and vomiting.

Rare side effects include muscle cramps, abdominal pain, feeling dizzy or drowsy and kidney problems.

In very rare cases bisphosphonates can cause jaw damage known as osteonecrosis of the jaw. Signs of this condition include swelling, pain or numbness of the jaw. These symptoms may be signs of other less serious conditions such as a gum infection but if you do develop any problems with your teeth or gums it is important to let your oncologist(cancer/chemotherapy doctor)and dentist know as soon as possible.

It is also important to tell your oncologist about any recent or upcoming dental treatment you are getting and to let your dentist know that you are on bisphosphonate treatment.



TAKING BISPHOSPHONATES WITH OTHER DRUGS

Certain antibiotics should be avoided, as the combination of drugs can interfere with the calcium level in the blood. Your consultant will advise you further. If you are taking oral Bisphosphonate you should not take any indigestion remedies or medications at home before taking your Bisphosphonate as they can affect its absorption.

WHAT SHOULD I DO IF I HAVE ANY CONCERNS?

If you are troubled by side effects it is important to discuss these with your specialist doctor or nurse. In many cases there are medications that can be given to help control and relieve side effects while on bisphosphonates.

HELP FROM ACTION BREAST CANCER

Action Breast Cancer, a programme of the Irish Cancer Society, provides breast cancer information and support and funds breast cancer research. Our services are free, confidential and accessible.

For more information call the National Breast Cancer Helpline on freefone 1800 30 90 40 or visit www.cancer.ie/action

FURTHER SUPPORT

If you have any concerns about taking bisphosphonates you can talk to your doctor or breast care nurse. You might find it easier to share your feelings with someone who has had a similar experience to you.

Reach to Recovery is a programme set up to help and support women who have been diagnosed with breast cancer. The programme works on the principle of personal contact between the patient and a Reach to Recovery volunteer - a woman who has had treatment for breast cancer. Carefully selected and fully trained volunteers are available to provide advice and reassurance at a time when a woman is most in need of both. For more information on individual support or cancer support centres in your area please call the National Breast Cancer Helpline on freefone 1800 30 90 40.

**ORGANISATIONS**

Action Breast Cancer
43/45 Northumberland Road
Dublin 4
Freefone Helpline: 1800 30 90 40
Email: abc@irishcancer.ie

Irish Cancer Society
43/45 Northumberland Road
Dublin 4
Freefone Helpline: 1800 200 700
Email: helpline@irishcancer.ie

Reach to Recovery
43/45 Northumberland Road
Dublin 4
Freefone Helpline: 1800 30 90 40

Voluntary Health Insurance
VHI House, Lower Abbey Street
Dublin 1
Callsave: 1850 44 44 44
Email: info@vhi.ie
Website: www.vhi.ie

QUINN-healthcare
Mill Island
Fermoy
Co. Cork
Locall: 1890 70 08 90
Email:
info@quinn-healthcare.com
Website:
www.quinn-healthcare.com

Hibernian Health
PO Box 764
Freepost
Togher
Co. Cork
Phone: 1850 71 66 66
Email: support@
hibernianhealthinsurance.ie
Website: www.hibernian.ie

USEFUL WEBSITES

Irish Cancer Society
www.cancer.ie

Breast Cancer Care UK
www.breastcancercare.org.uk

Cancer Backup
www.cancerbackup.org.uk

American Cancer Society
www.cancer.org

The Susan G. Komen Foundation
www.komen.org

Europa Donna
www.europadonnaireland.ie

Lymphodema Ireland
www.lymphireland.com

Manual Lymph Drainage Ireland
www.mldireland.com

ABC – ACTION BREAST CANCER

Action Breast Cancer, a programme of the Irish Cancer Society, is the leading provider of breast cancer information and support in Ireland. Each year we reach over 25,000 women who are concerned about breast cancer or breast health. Our services are free and include:

- **National Breast Cancer Helpline** 1800 30 90 40 – staffed by specialist cancer nurses.
- **Patient care programmes** – providing emotional support and practical assistance for those living with breast cancer.
- **Health Promotion** – providing community and workplace programmes on breast awareness and leading a healthy lifestyle.
- **Advocacy** – providing a voice for those affected by breast cancer in Ireland.
- **Professional support** – complementing the services offered by those caring for breast cancer patients.
- **Research** – funding vital Irish research that will have a significant impact on the diagnosis and treatment of breast cancer.

ABC is funded entirely by donations from the public. If you would like to support our work or make a donation please contact us.

action
breast
cancer

a programme of
irish cancer society

Freefone Helpline
1800 30 90 40

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