Secondary Bone Cancer

This factsheet is for those who have been diagnosed with secondary cancer in the bones which has spread from the breast. It describes what secondary bone cancer is, what the symptoms are and the treatments used. We hope it answers some of your questions and helps you to discuss your options with your specialist, so that you can take part in your treatment plan.

WHAT IS SECONDARY BONE CANCER?

Secondary bone cancer occurs when cancer cells spread from the breast through the blood or lymphatic systems and settle on the bone. You may hear this type of spread described as metastases, recurrence of the cancer, secondary tumors or secondaries. The bone is the most common site of secondary cancer from the breast. The bones most commonly affected are the spine, skull, pelvis, hipbones or the upper bones of the arms and legs.

Bone contains two types of living cells, osteoclasts and osteolasts, which help form bone.

Osteoclasts destroy and remove small amounts of old bone and osteoblasts, help build up new bone. In secondary bone cancer the cancer cells that have spread to the bone produce chemicals which disturb the formation of bone. This results in more bone being destroyed than is being replaced. This process can lead to some of the symptoms of secondary bone cancer.

WHAT SYMPTOMS MIGHT I HAVE?

Below is a list of the symptoms associated with secondary bone cancer. You may experience one or more of these symptoms, or none at all. It is important to remember that many women feel well with secondary bone cancer and their symptoms are well controlled.
Pain
Secondary bone cancer can cause pain in the affected area that ranges from mild to severe. Each person’s experience of pain is different. It is important to know that pain can almost always be relieved or controlled. If your pain is not managed efficiently your mobility and quality of life will be affected.

Try to be as specific as possible when you are telling your doctor or nurse where the pain is and what it feels like. This will ensure that you are given the most suitable pain relief. For example, the pain may feel like a dull ache over the affected area or it may feel like a burning or a stabbing pain. You may find that the pain is persistent or it may be worse at night.

Certain movements may affect the pain and there may also be tenderness at the site. You may find it helpful to record this in a ‘pain diary’ that you can show to your doctor or nurse.

There are a number of very good painkillers available to treat pain. They can be used on their own, with other pain relieving drugs or with other treatments.

A mild painkiller such as paracetamol or a non-steroidal, anti-inflammatory drug such as diclofenac may be tried first. If this is not enough to relieve the pain a stronger painkiller may be used. In cases where the pain is severe a morphine-based drug is often prescribed. At times a combination of drugs may be needed.

It is important that you take these drugs as directed, for example every 4 hours. This will ensure that you are pain-free at all times. Don’t wait until the pain is unbearable.

In some cases these drugs may not control the pain fully. You may need to go into hospital or into a hospice so that a specialist symptom control team can assess you.

Hypercalcaemia (too much calcium in the blood)
Bone is a living tissue and consists of calcium and various proteins that make it strong. Secondary bone cancer can alter the bone structure so that calcium is released into the bloodstream. If the calcium level gets too high you may get symptoms such as nausea, vomiting, constipation or drowsiness. In more severe cases you may experience excessive thirst, weakness or confusion. To relieve your symptoms you might be told to drink plenty of water or you may need to be admitted to a hospital to have fluids into a vein. This fluid helps to flush the calcium out of the body. You may also be given one of a group of drugs known as bisphosphonates (these are described below).

Bone weakening of fracture
Secondary bone cancer may mean that the bones affected are weakened. This can increase the risk of fracture (breaking a bone) in some circumstances.

Once a bone has weakened, radiotherapy or surgery can be used to prevent it from fracturing. An orthopaedic surgeon can try to do this by securing the bone with a metal screw or plate. If a bone has already fractured then the orthopaedic surgeon will try to repair the fracture, again by using a metal screw or pin. In rare cases a whole section of bone can be replaced. This is called an endoprosthesis.

If an area of your vertebrae (bones in the spine) should fracture or collapse causing pressure on the spinal cord (spinal cord compression), this may need to be treated as an emergency. Radiation is the treatment of choice for spinal cord compression. You will also be given steroids (drugs that help to reduce inflammation). Sometimes surgery may be recommended, but this is rare. If you have any changes in your upper or lower limbs, or changes in your bowel or bladder habits, contact your breast care nurse or doctor immediately.
Anaemia/bone marrow infiltration
In rare cases the secondary cancer may invade the bone marrow. This is the hollow part of the bone where blood cells are made. This may cause immature blood cells (cells at an early form of development) to be released into your bloodstream. This can result in problems such as anaemia (lack of red blood cells). You may experience tiredness or shortness of breath. This type of anaemia may be treated with blood transfusions or medication that increases the number of red blood cells in your bloodstream.

WHAT INVESTIGATIONS WILL I NEED?
You may need one or more of the following tests in order for your doctor to confirm a diagnosis of secondary bone cancer.

Bone X-ray
This is a simple X-ray that can show up certain changes in the bone and may indicate if secondary bone cancer is present. The X-ray may not be able to pick up small areas of secondary bone cancers. It involves a very low-dose radiation exposure. It is painless and only takes a few minutes.

Bone scan
This is a more sensitive test than an X-ray and shows up any abnormal areas of bone more clearly. A bone scan shows the whole skeleton, while x-ray only show the particular area being looked at. For this test a small amount of a very weak and harmless radioactive substance is injected into a vein, usually in the arm, a few hours before the scan. If there is anything unusual it will be shown up by an increased uptake of the radioactive substance in the affected area. It is important to remember that people with other bone conditions such as osteoporosis and arthritis may have positive bone scans without having secondary bone cancer. The scan is not painful but you will have to lie flat and still for about half an hour.

MRI (magnetic resonance imaging)
This scan uses magnetism instead of x-rays. The scans provide a detailed picture of the area being looked at. Like the bone scan, the MRI is not painful but you will have to lie flat and still for up to an hour.

Blood tests
In some centres you may have a blood test to measure proteins known as tumour markers, which are produced by certain tumours. This may help to monitor your disease.

HAT TREATMENTS MIGHT I BE OFFERED?
Although secondary bone cancer cannot be cured it can be treated effectively. The aim is to relieve your symptoms and improve your quality of life by controlling the growth of the cancer. You may be offered treatments such as hormone therapy, chemotherapy, radiotherapy or surgery, either alone or in combination.

The treatments you are offered will depend on a number of factors. These include your symptoms, how far the cancer has spread in the bones, whether or not you have had your menopause, the type of tumour you had originally and your general health.

Hormone therapy
Hormone therapy may be the first choice of treatment for secondary bone cancer. There are a number of hormone therapies available, but most commonly used drugs are Tamoxifen and the aromatase inhibitors. For more information call the National Breast Cancer Helpline on Freefone 1800 30 90 40.
Chemotherapy
If your secondary bone cancer does not respond to hormone treatment (or has stopped responding to it) you may be offered chemotherapy. A number of chemotherapy drugs are used to treat secondary bone cancer. These drugs may be given alone or in combination.

Secondary bone cancer can be slow to respond to chemotherapy and you may need several cycles at different intervals before any benefit can be seen. Before you are given chemotherapy your specialist, breast care nurse or chemotherapy nurse will discuss the treatment with you and help you weigh up the potential benefits against the possible side effects.

For more information please see our Chemotherapy booklet.

Radiotherapy
The aim of radiation treatment is to improve your quality of life by improving your mobility, decreasing pain and preventing possible fractures. When radiotherapy is given for secondary bone cancer it can be given as a single dose or divided doses over a few days. This means that the side effects are likely to be very few. Your specialist team will discuss your treatment with you beforehand.

Bisphosphonates
Bisphosphonates are drugs that target the parts of the skeleton where there is high bone turnover (the areas where the osteoclasts have become overactive). They do not treat the cancer itself but may help to reduce the breakdown of the bone by restricting the action of the osteoclasts. They can either be given in tablet form or through a drip into the vein. They work in three ways:
- to reduce high calcium levels in the blood
- to help reduce pain that has not responded well to painkillers or is too widespread for local radiotherapy
- long-term use of bisphosphonates reduces the risk of bone fractures and may delay the spread of the secondary bone cancer.

For more information please see our Factsheet on Bisphosphonates.

Targeted Cancer therapies
There are some newer drugs available, which may be prescribed for you called targeted therapies. These drugs work by blocking the growth and spread of cancer by changing the biology of cancer cells. The most well known is a drug called Herceptin (Trastuzumab). This one is only suitable for people whose cancer has high levels of "HER2", a protein that encourages cancer cell growth.

COPING WITH SECONDARY BONE CANCER
Even though you have been diagnosed with secondary bone cancer you may feel well and be symptom-free for a long time. However, finding out that your cancer has spread to the bone may bring up a variety of emotions similar to when you were first diagnosed, only this time they may be stronger. There may be times when you feel overcome by fear, anxiety, sadness, depression or anger. The uncertainty of living with secondary bone cancer can sometimes contribute to you feeling emotionally up and down.

You may be able to cope with these feelings on your own or with the support of those closest to you such as your family and friends. If you find you need extra support, you can talk to your breast care nurse, hospice or home care nurse. A social worker may be able to offer practical support. A counsellor or psychotherapist may be more appropriate if you need more long-term professional help.
The Irish Cancer Society funds a counselling service which may help you to see things differently and help you through a difficult patch. You may be able to express worries or concerns to a counsellor that you do not wish others to know.

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

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
OTHER ORGANISATIONS

**Action Breast Cancer**
43/45 Northumberland Road
Dublin 4.
Freefone Helpline: 1 800 30 90 40
Email: abc@irishcancer.ie

**Irish Cancer Society**
43/45 Northumberland Road
Dublin 4.
Freefone Helpline: 1 800 200 700
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: 1800 44 44 44
Email: info@vhi.ie
Website: www.vhi.ie

**QUINN-healthcare**
Mill Island
Fermoy
Co. Cork
Local: 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

**American Cancer Society**
www.cancer.org

**The Susan G. Komen Foundation**
www.komen.org

**Cancerbacup**
www.cancerbacup.org.uk

**Europa Donna**
www.europadonna.net/ireland

**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.