

PERTUZUMAB (PERJETA)



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ABOUT THIS BOOKLET

This booklet explains what pertuzumab is, when it's given and its possible side effects.

Pertuzumab is the non-branded name of the drug, and is how it's referred to in this booklet. Its brand name is Perjeta. When pertuzumab is combined with trastuzumab in an injection its brand name is Phesgo.

WHAT IS PERTUZUMAB?

Pertuzumab is a targeted therapy drug.

Targeted therapies block the growth and spread of cancer. They target and interfere with processes in the cells that cause cancer to grow.

Targeted therapy can also be known as biological therapy.

WHO MIGHT BE OFFERED IT?

You will only be offered pertuzumab if your breast cancer is HER2 positive (see page 4).

If your breast cancer is HER2 negative, pertuzumab will not be of any benefit to you.

In this booklet we refer to primary, locally advanced and secondary breast cancer.

Primary breast cancer has not spread beyond the breast or lymph nodes under the arm.

Locally advanced breast cancer has spread to the tissues and lymph nodes around the chest, neck and under the breastbone.

Secondary breast cancer has spread to another part of the body, such as the bones, lungs, liver or brain.

WHEN PERTUZUMAB IS GIVEN

Before surgery

Pertuzumab can be given before surgery to treat HER2 positive:

- Inflammatory breast cancer
- Primary breast cancer that's at high risk of coming back
- Locally advanced breast cancer

After surgery

Pertuzumab can be given after surgery to people whose HER2 positive breast cancer is at high risk of coming back.

To treat secondary or locally advanced breast cancer

Pertuzumab can be used to treat HER2 positive:

- Secondary breast cancer
- Locally advanced breast cancer that cannot be removed by surgery

Pertuzumab is only suitable for people who haven't previously had targeted therapies, such as trastuzumab, or chemotherapy for secondary or locally advanced breast cancer.

You may also be offered pertuzumab as part of a clinical trial.

How do I know if my breast cancer is HER2 positive or HER2 negative?

Some breast cancer cells have a higher than normal level of a protein called HER2 on their surface, which stimulates them to grow. This is known as HER2 positive breast cancer.

Only people whose cancer is HER2 positive will benefit from having pertuzumab.

All invasive breast cancers (breast cancer that has the potential to spread) are tested for HER2 levels. The test is done in the laboratory on a sample of breast cancer tissue removed during a biopsy or surgery. The results are usually available between one and three weeks later.

There are various tests to measure HER2 levels.

A test called IHC is usually done first. It's reported as a score ranging from 0 to 3+:

- 0 or 1+ means HER2 negative
- 2+ is borderline
- 3+ means HER2 positive

Breast cancers with a borderline result (2+) should be retested using a more specialised test. These include tests called FISH, CISH or DDISH. These tests usually give a result of HER2 positive or negative. If any of these further tests are needed, the results may take up to two weeks.

If your cancer is HER2 negative, pertuzumab will not be of benefit to you.

HOW IS PERTUZUMAB GIVEN?

Pertuzumab can be given:

- As a drip into a vein (intravenously), usually in the hand or arm
- As an injection into the fatty tissue under the skin (subcutaneous injection) in your thigh

It's given once every three weeks. This is known as a cycle.

You'll have your treatment as an outpatient at the hospital.

Pertuzumab is given:

- For primary breast cancer, in combination with the targeted therapy trastuzumab and chemotherapy
- For secondary or locally advanced breast cancer, in combination with trastuzumab and a chemotherapy drug called docetaxel

Into a vein

It usually takes between 30 and 60 minutes to have intravenous pertuzumab.

The drug may be given through a tube that's put into the vein each time you have the treatment. It can also be given through a device that stays in place throughout the whole course of the treatment. You can find out more about these devices in our **Chemotherapy for breast cancer** booklet.

As an injection

The injection usually takes around 8 minutes for the first dose and around 5 minutes for future doses.

The injection is a combination of pertuzumab and trastuzumab. You may hear it called by its brand name Phesgo.

HOW LONG WILL I HAVE PERTUZUMAB FOR?

Before surgery, pertuzumab is given for three to six cycles alongside trastuzumab and chemotherapy.

After surgery, it's given alongside trastuzumab and chemotherapy for around one year.

Some people have pertuzumab before and after surgery. Up to 18 cycles can be given in total.

For secondary or locally advanced breast cancer that can't be removed by surgery, you will continue to have it alongside trastuzumab after the chemotherapy has finished, for as long as your treatment team feels you're benefiting from the treatment and tolerating any side effects.

WHAT ARE THE SIDE EFFECTS OF PERTUZUMAB?

Like any drug, pertuzumab can cause side effects. Everyone reacts differently to drugs and some people have more side effects than others. The side effects of pertuzumab can usually be controlled or reduced and those described here will not affect everyone.

This booklet does not list all the possible side effects. If you have any questions about side effects, whether they are listed below or not, talk to your treatment team.

Because pertuzumab is given alongside other drugs, you may also have side effects from these. It's sometimes difficult to know which drug causes which side effects.

Some of the side effects listed in this booklet won't apply if you are having pertuzumab and trastuzumab without chemotherapy.

For more information about the side effects of chemotherapy, see our **Chemotherapy for breast cancer** booklet. Our booklets on **Trastuzumab** and **Docetaxel** have details on the side effects of these drugs.

Blood clots

People with breast cancer have a higher risk of blood clots such as a deep vein thrombosis (DVT). Their risk is higher because of the cancer itself and some treatments for breast cancer. If the cancer has spread to other parts of the body, this also increases the risk.

People with a DVT are at risk of developing a pulmonary embolism. This is when part of the blood clot breaks away and travels to the lung.

Blood clots can be harmful but are treatable so it's important to report symptoms as soon as possible.

If you experience any of the following symptoms contact your local A&E department, GP or treatment team straight away:

- Pain, redness, discolouration, heat and swelling of the calf or thigh
- Swelling, redness or tenderness where a central line is inserted (to give chemotherapy, for example) in the arm, chest area or up into the neck
- Shortness of breath
- Pain or tightness in the chest
- Unexplained cough or coughing up blood

Common side effects

Diarrhoea and constipation

Tell your specialist or GP if you have diarrhoea or constipation as they can prescribe drugs to help.

Contact your treatment team if you have four or more episodes of diarrhoea within 24 hours. Drink plenty of fluids to avoid getting dehydrated.

Itchy skin with or without a rash

This can be uncomfortable, but regularly using a moisturiser and a high-factor sunscreen when out in the sun may help. Your treatment team may suggest drugs such as antihistamines to reduce itching.

Upper respiratory tract infections

These affect the nose, sinuses and throat. You may develop a cough, shortness of breath, headaches, a blocked nose or a sore throat.

Sore mouth

Your mouth may become sore, dry or painful and you may get ulcers.

You may be given mouthwash to reduce soreness of the mouth and gums and to try to stop mouth ulcers developing.

Looking after your mouth, including your teeth and gums, is very important during treatment.

It's advisable to see your dentist for a dental check-up before your treatment begins. Check with your treatment team before having any dental work done.

Increased risk of infection

Having this treatment can affect the number of healthy blood cells in the body. Not having enough white blood cells can increase the risk of getting an infection.

Your risk of infection is higher if you're also having chemotherapy.

Your treatment team may give you guidelines to follow for reporting signs of an infection, but generally you should contact your hospital immediately if you experience any of the following:

- A high temperature (over 37.5°C) or low temperature (under 36°C), or whatever your chemotherapy team has advised
- Suddenly feeling unwell, even with a normal temperature
- Symptoms of an infection, for example a sore throat, a cough, a need to pass urine frequently or feeling cold or shivery

As you may need to be treated with antibiotics, your treatment team should give you a 24-hour contact number before you start pertuzumab or tell you where to get emergency care.

Anaemia

Having too few red blood cells is called anaemia. If you feel particularly tired, breathless or dizzy, let your treatment team know.

Hair thinning or hair loss

Pertuzumab and trastuzumab do not usually cause people to lose their hair.

Any hair loss caused by chemotherapy should be temporary and in most cases your hair will begin to grow back once your chemotherapy has ended. You can read more information in our **Breast cancer and hair loss** booklet.

Fatigue (extreme tiredness)

Fatigue is extreme tiredness and exhaustion that doesn't go away with rest or sleep.

It can affect you physically and emotionally. It's a very common side effect and may last for weeks or months even if you have finished treatment. Occasionally fatigue is a long-term effect.

Fatigue can also be caused by conditions such as anaemia (too few red blood cells).

Let your team know if you're affected by fatigue to rule out other conditions.

Fatigue affects people in different ways and there are a number of ways of coping with and managing it – your treatment team may be able to help you with this.

You can find more information on our website or by calling our Helpline on **0808 800 6000**. Macmillan Cancer Support produces a booklet called Coping with fatigue.

Flu-like symptoms

Fever, chills, mild pain in some parts of the body and headaches can occur during or shortly after your treatment. Taking pain relief can help.

Nausea and vomiting

You may feel sick (nausea) or be sick (vomit). Anti-sickness drugs will be prescribed to help with this. If your sickness is not controlled by these, tell your treatment team as they may be able to change your anti-sickness drugs.

Change in taste

You may experience changes in taste and some foods may taste different, for example more salty, bitter or metallic.

It can help to try different types of food to find the ones you prefer to eat.

Loss of appetite

You may not feel like eating, especially if you're feeling sick. It might help to eat small meals regularly and drink plenty of fluids.

Joint pain and stiffness

Your muscles and joints may ache, or you might feel stiff. Taking regular pain relief can help. Talk to your treatment team for advice.

Eye problems

Your eyes may feel watery or may become sore, red and itchy. Your doctor can prescribe eye drops to help prevent this.

Tummy (abdominal) pain and indigestion

You may have tummy pain. You may also have indigestion or heartburn, which is a burning feeling in the lower chest. Let your treatment team know if you have any of these side effects. They can prescribe medications to help.

Difficulty sleeping

If you have difficulty sleeping (insomnia), simple things like limiting caffeine in the afternoon and evening, keeping your room dark and quiet, and going to bed and getting up at a set time each day may help.

Relaxation exercises can also be helpful. There are CDs, podcasts, phone apps and YouTube tutorials that can guide you through these techniques.

If your insomnia lasts, your GP may prescribe something to help you sleep.

Less common side effects

Allergic reaction

Some people have a reaction while having pertuzumab or a few hours afterwards. Reactions may vary from mild to severe, although severe reactions are uncommon.

Reactions may include a fever (high temperature), flushing, feeling sick, faintness, shivering, chills, shortness of breath, wheezing, back pain and an itchy rash.

You'll be monitored closely during your treatment so that any reaction can be dealt with immediately. If you have any of these symptoms soon after your treatment, contact your treatment team straight away.

Heart problems

Tell your treatment team if you feel like your heart is racing, or you feel dizzy or lightheaded.

You'll have heart tests before starting treatment and regularly throughout to check how your heart is working. This could be an echocardiogram (echo) or a multiple-gated acquisition (MUGA) scan.

Any problems should stop when the treatment has finished.

Rare side effects

Inflammation of the lungs

Pertuzumab can cause severe inflammation of the lungs.

Contact your treatment team straight away if you have any new or worsening symptoms involving your lungs including:

- Difficulty or discomfort with breathing
- Shortness of breath at rest or during mild activity
- Dry cough
- Chest pain

SEX, CONTRACEPTION AND PREGNANCY

Having pertuzumab while pregnant may be harmful to a developing baby.

Some women can still become pregnant even if their periods are irregular or have stopped.

Women who are sexually active with a chance of becoming pregnant, should continue using an effective barrier contraception during and for six months after stopping treatment.

The effects of pertuzumab on both female or male fertility are not known.

Pertuzumab and breastfeeding

You'll be advised not to breastfeed during treatment. This is because there's a chance your baby may absorb the drug through your breast milk, which may cause harm.

VACCINATIONS

Always check with your treatment team before having any vaccinations while having pertuzumab.

If you're planning a trip and need vaccinations, discuss this with your treatment team.

Coronavirus (Covid-19) vaccination

People having pertuzumab are advised to speak to their treatment team before having the coronavirus (Covid-19) vaccination.

Flu vaccination

Anyone at risk of a weakened immune system, and therefore more prone to infection, should have the flu vaccine. This includes people having, or due to have, treatment for breast cancer. Talk to your treatment team about the best time to have your flu jab.

HELP US TO HELP OTHERS

If you have found this information helpful, would you consider making a donation to support our care and research work? You can donate on our website breastcancer.org/donate

ABOUT THIS BOOKLET

Pertuzumab (Perjeta) was written by Breast Cancer Now's clinical specialists, and reviewed by healthcare professionals and people affected by breast cancer.



For a full list of the sources we used to research it:
Email health-info@breastcancer.org



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At Breast Cancer Now we're powered by our life-changing care. Our breast care nurses, expertly trained staff and volunteers, and award-winning information make sure anyone diagnosed with breast cancer can get the support they need to help them to live well with the physical and emotional impact of the disease.

We're here for anyone affected by breast cancer. And we always will be.

For breast cancer care, support and information, call us free on **0808 800 6000** or visit **breastcancernow.org**

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Patient Information Forum

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