

## Goserelin (Zoladex)/leuprorelin (Prostap)

This leaflet is offered as a guide to you and your family. Goserelin (also known as Zoladex) and leuprorelin (also known as Prostap) are similar medications that are known as hormonal treatments. They are usually used in combination with other hormonal therapy drugs. The possible benefits of treatment vary; for some people hormonal therapy may reduce the risk of cancer coming back, for others it may control the cancer and its symptoms. This medication may also be used to protect the ovaries and attempt to preserve fertility during chemotherapy treatment. Your doctor will explain to you whether you will receive chemotherapy or another type of treatment or a combination of both. A member of your clinical team will be happy to answer any questions you have about your treatment.

Hormones are substances produced naturally in the body. They act as chemical messengers and help control the activity of cells and organs. Hormonal therapies are drugs that interfere with the way hormones are made or how they work in the body. Many breast cancers rely on the hormone oestrogen to grow. This type of breast cancer is called oestrogen receptor-positive (ER positive) breast cancer.

Goserelin and leuprorelin are used to treat ER positive breast cancer by stopping the body make oestrogen.

### Your treatment

These medicines are given by subcutaneous injection (under the skin) every 3-4 weeks or every 12 weeks. Your medical team will be able to advise on the most appropriate frequency of your injections. You may undergo this treatment at the hospital or it may be prescribed by your GP.

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.

If you feel unwell, you have symptoms of an infection or your temperature is 37.5°C or above, or below 36°C contact The Christie Hotline straight away.



## Possible side effects

Hormone therapy can cause 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 a member of your clinical team about any side effects so they can be monitored and, where possible, treated.

**Your oestrogen levels may go up in the first few days or weeks after starting on goserelin.** This is temporary but may make symptoms caused by advanced breast cancer worse. Doctors call this tumour flare. If you have any concerns, please speak to your clinical team.

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

### • Vaginal bleeding

Some women have vaginal bleeding during the first few weeks of having goserelin/leuprorelin. Let a member of your clinical team know if this continues. Your periods will usually stop while you are having this treatment. This is an expected effect, and is caused by the lower levels of oestrogen in the body. When you finish goserelin/leuprorelin treatment, your periods are likely to start again. Some women, however, do go through their natural menopause during treatment and their periods don't come back. Even if your periods stop, you can still become pregnant. Goserelin/leuprorelin is not a contraceptive drug. You need to make sure that you use effective contraception while having goserelin/leuprorelin. You can discuss this a member of your clinical team.

### • Hot Flashes

Hot flashes and sweats may occur but lessen after the first few months. Cutting down on nicotine, alcohol and hot drinks containing caffeine, such as tea and coffee, can help. Dress in layers, so you can remove clothes as needed. Natural fabrics, such as cotton, may feel more comfortable. If hot flashes are a problem, tell your doctor. Hot flashes can be managed by lifestyle changes, acupuncture or medication. Many of the over the counter preparations that can be bought for menopausal side effects are not suitable for patients with a history of breast cancer. Please consult your medical team before starting any new medication or herbal supplements.

### • Reduced sex drive

Many patients have a lower sex drive during treatment with goserelin/leuprorelin. This usually continues for as long as treatment is given. Some women also have vaginal dryness. Lubricating gels can help. These are available from a pharmacist or your GP can prescribe them.

Men may have issues with getting and maintaining an erection. Your medical team can prescribe treatments to help with erection problems but this will not improve your sex drive. Talk to your medical team for more information.

### • Skin rash and dry skin

You may get a mild skin rash or dry skin. Tell a member of your clinical team if this happens.

**It is very important to contact your clinical team straightaway if you get a severe skin rash.**

### • Hair thinning

Your hair may become thinner while taking goserelin/leuprorelin. Your hair will get thicker after treatment finishes.

### • Mood changes

Some patients have mood changes, or feel low or depressed when having goserelin/leuprorelin. Let your clinical team know if this is a problem, especially if you feel low most of the time or think you may be depressed.

- **Joint and muscle pain**

You may have pain and stiffness in your joints, and sometimes in your muscles while taking goserelin/leuprorelin. Let your clinical team know if this happens. They can prescribe painkillers and give you advice. Being physically active and maintaining a healthy weight can help reduce joint pain and keep your joints flexible.

- **Bone fracture**

Taking goserelin/leuprorelin for a few years increases your risk of bone thinning, called osteoporosis. This can increase your risk of a broken bone (fracture). You will usually have a bone density scan to check your bone health before and during treatment. If you are at risk of osteoporosis, your clinical may prescribe drugs called bisphosphonates to protect your bones. They will also usually advise you to take calcium and vitamin D supplements. Regular walking, eating a healthy diet, not smoking and sticking to sensible drinking guidelines will also help to strengthen your bones.

- **Tingling in hands and feet**

Goserelin/leuprorelin may cause changes in sensation in the hands and feet. This is usually mild. Let your clinical team know if you have this.

- **Changes in blood pressure**

Goserelin/leuprorelin may cause low or high blood pressure. Tell your clinical team if you have ever had any problems with your blood pressure. Let them know if you feel dizzy or have any headaches.

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

- **High calcium levels**

If you have breast cancer that has spread to the bones, goserelin/leuprorelin can cause high calcium levels in the blood (hypercalcaemia). If your calcium is high, you may feel sick or be sick (vomit), be very thirsty, constipated, or sometimes, confused. If you have any of these symptoms, let a member of your clinical team know straightaway so they can treat it.

- **Chest tightness or pain**

If you notice changes to your heartbeat, such as it speeding up, let a member of your clinical team know. If you have pain or tightness in your chest, or feel breathless at any time during or after treatment, see a member of your clinical team straightaway.

## **Sex, contraception and fertility**

### **Protecting your partner and contraception:**

We recommend that you or your partner use a barrier contraception during sexual intercourse while you are receiving this treatment. If you suspect that you may be pregnant please tell a member of your medical team immediately.

Your doctor will advise you not to become pregnant when you are having goserelin/leuprorelin. This is because goserelin/leuprorelin may harm a developing baby. For women it is important to use an effective, non-hormonal barrier form of contraception during treatment and for a few months after it finishes. Even if your periods have stopped or are irregular, you still need to use contraception. A member of your clinical team can tell you more about this.

## 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're thinking of having any other vaccinations, do check with your Christie doctor first, because some vaccines should be avoided.

## Contacts

If you have any general questions or concerns about your treatment, please contact your consultant's secretary or breast cancer nurse.

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

Your consultant is: .....

Your hospital number is: .....

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If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

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