

Inducing ovulation using Letrozole (Femara)

What is the condition?

Some women find it difficult to fall pregnant because their ovaries are not releasing eggs (ovulating) every month. Ovulation is controlled by two hormones which are released from the pituitary gland at the base of the brain. These hormones are known as gonadotrophins and are called follicle stimulating hormone (FSH) and luteinising hormone (LH). In women who cannot ovulate, there is often an imbalance of these hormones which prevent eggs from being released. In some cases, these eggs become trapped in small follicles which are fluid-filled sacs in your ovaries. These follicles can be seen using ultrasound and are often referred to as polycystic ovaries.

What is letrozole?

Letrozole (Femara) belongs to a class of drugs known as aromatase inhibitors. These drugs lower oestrogen production resulting in better regulation of FSH and LH. By doing this, letrozole helps to develop the eggs and induce ovulation. Letrozole is licenced for the treatment of breast cancer, however, it is being increasingly used as treatment by fertility specialists to aid ovulation.

Why do I need treatment?

Letrozole can be considered in the following situations:

- If you have not responded to clomifene citrate (Clomid) ovulation induction
- If you are unable to tolerate clomifene
- If the normal development of the lining of the womb is affected by clomiphene
- If you persistently develop too many follicles due to ovulation treatment
- As an adjuvant medication in patients with hormone sensitive breast cancer undergoing IVF for fertility preservation (to keep oestrogen levels to a minimum)

How effective is letrozole?

Several studies have suggested that using letrozole to induce ovulation results in better rates of successful ovulation compared to clomiphene. Higher birth rates and lower rates of multiple pregnancy have also been seen compared to clomiphene. Letrozole has less adverse effect on womb lining thickness, something seen with the use of clomiphene. Overall, approximately 1/3 women who use letrozole will become pregnant.

What is the treatment process?

Letrozole is taken as an oral tablet from day 3-7 of your menstrual cycle, with day 1 being the first full day of bleeding. The starting dose is usually 2.5 milligrams. You will be asked to perform a home ovulation test to check for ovulation. The timing will depend on how regular your periods are. If you do not ovulate on 2.5mg, then the dose is doubled in the next cycle to 5mg per day. This is usually sufficient for most women, but the maximum dose is 7.5mg.

It is advisable to have regular intercourse on alternate days from day 12 of your cycle to day 18 (assuming a monthly menstrual cycle). Women with longer cycles will need to estimate when they are mid cycle.

If ovulation has occurred and you are not pregnant, you should take the same dose in the next cycle for up to six cycles, unless instructed to do otherwise by your doctor. If the pregnancy test is positive, please ring the hospital and ask for your consultants' secretary to arrange an early infertility clinic appointment and an ultrasound. If a pregnancy has not occurred, you will be followed up by the clinical team to discuss next steps.

Scanning during treatment process.

Depending on individual circumstances, you may have a scan around day 12-14 of your cycle which is performed vaginally. You will need to have emptied your bladder for the scan. The lining of your womb will be measured, as well as the size and number of follicles. The doctor or nurse will explain the results with you.

Is the treatment safe?

The most important side effect of taking ovulation induction medication is multiple pregnancy (twins). The estimated incidence is 1/30 women (3.4%). Other side effects include hot flushes, as well as occasional fatigue and dizziness, nausea, headaches, bloating, muscle aches and blurred vision. They can occur in approximately 1-2 out of 10 women and is limited to that cycle. There is a very rare risk of ovarian hyperstimulation syndrome (OHSS) with all ovulation induction medication. This results in the ovaries becoming enlarged with multiple follicles, causing abdominal discomfort and fluid accumulation in the abdomen. Very rarely women may need to be hospitalized and monitored. 1% of women who take clomid will develop the condition. The risk of developing OHSS is much less with letrozole use.

Are there alternatives?

Some patients may require higher doses, and some may not ovulate at all. Under these circumstances alternative treatments will be discussed.

Alternatives to letrozole tablet include:

- Clomiphene citrate (Clomid) tablets
- Gonadotrophin injections

What should I do if I have a problem?

If you have any problem with the treatment, please ring the hospital and ask to speak to your consultant's secretary for advice. Your own doctor may also be able to help. Please also see useful contacts below.

Useful contacts

If you are a patient of the Liverpool Women's Hewitt Fertility Centre, you can contact the nursing staff Monday- Friday 08:00-16:45 and Saturdays 08:15-13:15 via 0151 702 4123, option 1.

If you are attending the Gynaecology outpatient department of Liverpool Women's NHS Foundation Trust, you can contact the nursing staff Monday- Friday 09:00-17:00 via 0151 708 9988.

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Issue Date: 01/10/2018

Reference: Hew/2022-201-v2

Review Date: 24/08/2025

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