LUVERIS® POWDER AND SOLVENT FOR SOLUTION FOR INJECTION

Lutropin alpha (75IU)

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What Luveris is used for

Luveris is a medicine containing lutropin alfa, a recombinant luteinising hormone (LH), which is essentially similar to the hormone found naturally in humans, but it is made by means of biotechnology. It belongs to the family of hormones called gonadotrophins, which are involved in the normal control of reproduction.

Luveris is for the treatment of women who have been shown to produce very low levels of some of the hormones involved in the natural reproductive cycle.

How does Luveris work

The medicine is used together with another hormone called follicle stimulating hormone (FSH), to bring about the development of follicles which are in the ovaries, the structures maturing the eggs (ova). It is followed by treatment with a single dose of human chorionic gonadotrophins (hCG), which leads to the release of an egg from the follicle (ovulation).

Before you use Luveris

- When you must not use it Do not use Luveris if:
- you have a history of allergy to gonadotrophins or to any of the ingredients listed at the end of this leaflet.
- you are pregnant
- · you are breastfeeding
- your ovaries are enlarged

- you have an unexplained ovarian cyst
- you have unexplained vaginal or uterine bleeding
- · your ovaries have failed
- you have fibroids in your uterus or malformations of sexual organs which would make pregnancy impossible
- you have cancer of the ovaries, uterus or breasts
- you have tumours of the pituitary gland or hypothalamus.

If you are not certain whether these conditions apply to you, or you are worried about anything on this list, tell your doctor.

If your medicine has expired or is damaged, return it to your pharmacist or clinic for disposal.

If you are not sure whether you should start using Luveris, talk to your doctor.

- Before you start to use it

Your doctor will assess you and your partner's infertility. This may include tests for other medical conditions, which may interfere with your ability to become pregnant. If necessary, other medical conditions may be treated before starting infertility treatments including Luveris.

Tell your doctor if you have or have had any of the following medical conditions:

- disorders of the thyroid gland
- disorders of the adrenal glands
- high prolactin levels in the blood
- porphyria (inability to breakdown porphyrin which can be passed from parent to child) or a family history of porphyria
- you or your family have increased risk factors for developing blood clots, e.g severe obesity

Treatment with Luveris may increase your risk of developing a condition called ovarian hyperstimulation syndrome (OHSS). This is when the

ovaries over react to the hormonal treatment and become larger. The most common symptom is lower abdominal pain. During stimulation your doctor will monitor your treatment by the use of ultrasound and blood tests to help determine if you are likely to develop OHSS. If necessary your doctor will delay or cancel your Luveris injection. You may also be advised to refrain from sexual intercourse or use barrier methods until the end of the cycle if this occurs.

In individuals undergoing induction of ovulation, the incidence of multiple pregnancy and births is increased compared with natural conception. Multiple pregnancy carry an increased risk of adverse maternal and perinatal outcomes. To minimise the risk of multiple pregnancy, careful monitoring of ovarian response is recommended by your doctor.

The incidence of pregnancy loss by miscarriage or abortion is higher in individuals undergoing stimulation of follicular growth for ovulation induction than following natural conception.

There have been reports of ovarian and other reproductive system tumours in women who have undergone multiple drug regimens for infertility treatment. It is not yet established whether or not treatment with gonadotropins increases the risk of these tumours in infertile women.

Tell your doctor if you have any allergies to any foods, dyes, preservatives or any other medicines. There may be a slightly increased risk of birth defects in women using assisted reproductive technologies. This may be due to increased maternal age, genetic factors, multiple pregnancies or the procedures. Talk to your doctor about any concerns you may have

before undergoing treatment or before you start using Luveris.

- Taking other medicines

Tell your doctor if you are taking any other medicines, including:

- all prescription medicines
- all medicines, vitamins, herbal supplements or natural therapies you buy without prescription from your pharmacy, supermarket, naturopath or health food shop.

Some medicines may be affected by Luveris or may affect how well it works.

Your doctor or pharmacist has more information on medicines to be careful with or to avoid while using Luveris.

How to use Luveris

Follow all directions given to you by your doctor or pharmacist carefully. They may differ from the information contained in this leaflet.

Treatment with Luveris should be started under the supervision of a specialist doctor experienced in fertility treatment.

Luveris is given as a course of daily subcutaneous (under the skin) injections at the same time as Follicle Stimulating Hormone (FSH). The powder must be reconstituted with the solvent before use by gentle swirling. Luveris may be mixed with follitropin alfa and co-administered as a single injection.

In this case Luveris should be reconstituted first and then used to reconstitute the follitropin alfa powder.

- How much to use

Your doctor will tell you how much Luveris to use and when to inject it. It is recommended that your treatment with Luveris starts at 75 IU daily along with 75 IU to 150 IU FSH but your doctor may adjust your dose of Luveris or FSH depending on your individual response to treatment. You are recommended to have sexual intercourse on the day of, and the day following, administration of the hormone. Alternatively, Intra-Uterine Insemination (IUI) may be performed. If an excessive response is obtained, treatment should be stopped and hormone withheld. For the following cycle, your doctor will

prescribe FSH at a lower dose than that of the previous cycle.

- How to inject

Luveris is given as a subcutaneous (under your skin) injection in the lower abdominal area or thigh, each day normally for up to 3 weeks. Luveris is intended to be injected by you or by your partner. Alternatively your doctor or a nurse may give you these injections. If your doctor or nurse decides you can give the injections yourself, the doctor or a nurse will teach you the injection technique. Do not self-inject until you are sure of how to do it. Read the Instructions for Use provided in the pack carefully before commencing injections. Your partner may be trained to give

- When to use it

the injection at home.

Do not inject into any areas in which you feel lumps, firm knots, depressions, pain or discolouration. Treatment can commence at any time. Talk to your doctor if you find anything unusual when injecting.

- How long to use it

Your doctor will tell you how long to take Luveris and when to inject it.

- If you forget to use it

If you forget an injection or are not sure what to do, contact your doctor or nurse immediately for advice. Do not inject a double dose on any day.

Ask your doctor if you have trouble remembering to inject your medicine.

- <u>If you use too much (overdose)</u> Immediately contact your doctor. Nevertheless there is a possibility that ovarian hyperstimulation syndrome (OHSS) may occur.

While you are using Luveris

- Things you must do

See your doctor regularly.
Your doctor will monitor you closely throughout your treatment.
Tell your doctor immediately if you become pregnant while using Luveris.

If you are about to be started on any new medicine, tell your doctor and pharmacist that you are using Luveris.

If you plan to have surgery, tell your doctor or dentist that you are using Luveris.

Tell all the doctors, dentists and pharmacists who are treating you that you are using Luveris.

- Things you must not do

If you are self-injecting do not:

- Stop using Luveris without telling your doctor.
- Change the dose unless your doctor tells you to. Changing your dose without advising your doctor can increase your risk of unwanted side effects or prevent the medicine from working properly.
- Give this medicine to anyone else, even if their symptoms seem similar to yours or if they have the same condition as you.

- Things to be careful of

Be careful driving or operating machinery until you know how Luveris affects you.

Side effects

Tell your doctor as soon as possible if you do not feel well while taking Luveris.

All medicines can have side effects. Sometimes they are serious, most of the time they are not.

Do not be alarmed by this list of possible side effects.

You may not experience any of them. Ask your doctor or pharmacist to answer any questions you may have. Tell your doctor immediately, or go to Accident and Emergency section of your nearest hospital if you experience any of the following:

- signs of allergic reactions including: swelling of the face, lips, tongue or other parts of the body; shortness of breath, wheezing or difficulty breathing; severe skin rash, itching or hives
- signs of severe OHSS such as severe lower abdominal pain, severe pelvic pain, nausea, vomiting, diarrhoea followed by rapid weight gain, reduced amounts of urine and shortness of breath
- warning signs of stroke or heart attack

 warning signs of blood clots (such as pain, warmth, redness, numbness or tingling in arm or leg).

Tell your doctor if you notice any of the following and they worry you:

- · headache
- nausea, vomiting, diarrhoea, abdominal discomfort or abdominal pain
- ovarian cysts, breast pain and pelvic pain
- local reactions at the injection site, such as pain, redness or swelling.

Ectopic pregnancy (embryo implanted outside the womb) may occur, especially in women with a history of prior tubal disease. Tell your doctor if you notice anything else that is making you feel unwell.

Other side effects not listed above may also occur in some people. You may report any side effects or adverse drug reactions directly to the National Centre for Adverse Drug Reaction Monitoring by calling Tel: 03-78835550, or visiting the website npra.moh.gov.my (Public → Reporting Medicinal Problems / Side Effects / AEFI / Vaccine Safety).

Storage and disposable of Luveris

- Storage

Do not store above 30°C. Store in the original package in order to protect from light.

Once the Luveris powder is dissolved with the solvent provided, it should be injected immediately. This is due to the solvent not containing preservative. Any solution that is left over must be discarded.

Do not use the dissolved solution if it contains particles or is not clear. Do not use the product after the expiry date.

Keep out of reach of children. Do not use this medicine if the packaging is torn or shows signs of tampering

- Disposal

If you are self-injecting, you should discard all sharps into a disposal unit. Each vial of medicine is for single use only. Any medicine left over after injecting should be discarded.

If you have any Luveris that has expired or is left over from your treatment, refer this to your clinic.

Product description

- What it looks like

The white powder is packaged in 3 ml neutral colourless glass (type I) vials. The vials are sealed with bromobutyl stoppers protected by aluminium seal rings and flip-off caps. The clear, colourless solvent is packaged either in 2 or 3 ml neutral colourless glass (type I) vials with a Teflon-coated rubber stopper or in 2 ml neutral colourless glass (type I) ampoules.

- Ingredients

- Active ingredient: lutropin alfa (recombinant human Luteinising Hormone {r-hLH}).
- Inactive ingredients:
 Sucrose, disodium phosphate
 dihydrate, sodium dihydrogen
 phosphate monohydrate,
 polysorbate 20, phosphoric
 acid, concentrated (for pH
 adjustment), sodium
 hydroxide (for pH
 adjustment), methionine
 nitrogen, water for injection

- <u>MAL Number</u>: MAL20032402AZ

Manufacturer

Merck Serono S.A (Aubonne) Succursale d' Aubonne, Zone Indistrielle de l' Ouriettaz, 1170 Aubonne, Switzerland

Product Registration Holder

Merck Sdn Bhd (178145-V) Level 3, Menara Sunway Annexe, Jalan Lagoon Timur Bandar Sunway 46150, Petaling Jaya Selangor Darul Ehsan

Date of Revision:

29/06/2017

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Instructions for Use

If you administer Luveris to yourself, please carefully read the following instructions:

- Wash your hands. It is important that your hands and the items you use be as clean as possible.
- Assemble everything you need. Find a clean area and lay out everything:
 - One vial of Luveris.
 - One vial of solvent.
 - Two alcohol swabs,
 - One syringe,
 - One reconstitution needle for dissolving the powder in the solvent,
 - A fine-bore needle for subcutaneous injection,
 - A sharps container for safe disposal of glass and needles.
- Remove the protective cap from the solvent vial. Attach the reconstitution needle to the syringe and draw up some air into the syringe by pulling the plunger to approximately the 1 ml mark. Then, insert the needle into the vial, push the plunger to expel the air, turn the vial upside down and gently draw up all the solvent. Set the syringe down carefully on the worksurface taking care not to touch the needle.
- Prepare the injection solution: Remove the protective cap from the Luveris powder vial, pick up your syringe and slowly inject the solvent into the vial of Luveris. Swirl gently without removing the syringe. Do not shake. After the powder has dissolved (which usually occurs immediately), check that the resulting solution is clear and does not contain any particles. Turn the vial upside down and gently draw the solution back into the syringe.



You may also mix Luveris and follitropin alfa as an alternative to injecting each product separately. After dissolving the Luveris powder, draw the solution back into the syringe and reinject it into the container with the follitropin alfa powder. Once the powder has dissolved, draw the solution back into the syringe. Inspect for particles as before, and do not use if the solution is not clear.



Up to 3 containers of powder may be dissolved in 1 ml of solvent.

- Change the needle for the fine-bore needle and remove any air bubbles: If you see air bubbles in the syringe, hold the syringe with the needle pointing upwards and gently flick the syringe until all the air collects at the top. Gently push the plunger until the air bubbles are gone.
- Immediately inject the solution: Your doctor or nurse will have already advised you where to inject (e.g. tummy, front of thigh). Wipe the chosen area with an alcohol swab. Firmly pinch the skin together and insert the needle at a 45° to 90° angle using a dart-like motion. Inject under the skin, as you were taught. Do not inject directly into a vein. Inject the solution by pushing gently on the plunger. Take as much time as you need to inject all the solution. Immediately withdraw the needle and clean the skin with an alcohol swab using a circular motion.

Dispose of all used items:
 Once you have finished your injection, immediately discard all needles and empty glass containers in the sharps container provided. Any unused solution must be discarded.

