



Letrozole

Letrozole may be prescribed for your preparation for an IVF/IUI cycle and the theoretic possibility that this drug may be beneficial in improving a woman's response to fertility drugs by increasing the number of FSH receptors on the ovary. Letrozole is a member of a class of drugs called aromatase inhibitors, which inhibit the action of the enzyme aromatase, which plays a role in the production of estrogens in the body and acts to increase secretion of gonadotropins (FSH and LH) by the pituitary gland. This latter action is similar to that of clomiphene citrate (Clomid). Unlike Clomid, Letrozole does not appear to have a negative effect on the uterine lining or cervical mucous.

Letrozole has been approved by the Food and Drug Administration for use in the treatment of various malignancies including breast and adrenal gland cancer because of its effect on inhibiting estrogen formation. There have been multiple publications regarding the efficacy of its use as an oral ovulation-inducing agent with minimal side effects and acceptable pregnancy rates. Based on a single report, the manufacturer of this drug has stated that the use of this agent for ovulation induction is contraindicated. The study, upon which this recommendation was made, was based on an abstract which evaluated the outcome of 170 infants, of which 20 were lost to follow-up evaluation. One hundred fifty babies from 130 pregnancies were compared with a control group of 36,000 infants born to low-risk pregnant women in a community hospital in Quebec. (1) The control population was younger than the letrozole group. The investigators reported that the incidence of birth defects (cardiac, skeletal and liver) was higher in the letrozole group than in the control group. The control group was composed of women without infertility problems who conceived spontaneously, which are known to be associated with a lower risk of pregnancy complications and congenital malformations than pregnancy in the infertility population. More recently, a larger study evaluated the incidence of congenital malformations among 911 newborns from mothers who had conceived with Letrozole (Femara) compared with a control group of infertile women who had conceived with clomiphene citrate (Clomid). (2) This study showed no difference in the overall rates of malformation or chromosomal abnormalities among the newborns from mothers who had conceived after letrozole or clomiphene citrate treatments. In fact, the incidence of congenital anomalies in their study was less frequent in the letrozole group than in the clomiphene citrate group.

Given the half-life of letrozole, which is approximately 30 to 60 hours, this agent should be cleared from the body completely by the time of embryo implantation. For a drug to cause fetal defects, it must be present in the body at the time that organs are formed. Letrozole will be discontinued prior to induction of ovulation and therefore, will not be present in my bloodstream at the time that embryos would be replaced into my uterus or a pregnancy established

Letrozole is a drug used frequently to induce ovulation. This drug acts on the pituitary gland to release the hormones that induce follicle development within the ovary. The drug is given following a menstrual period starting on days three (3) or five (5) for a total of five (5) days. The dose can also be increased to ensure adequate ovulation. Once you are ovulating, there is no benefit to increasing the dosage.

You can expect to ovulate usually 12-14 days after you start clomiphene, or on days 16-19 of your menstrual cycle. Your period should then fall approximately 14 days after ovulation, or as late as cycle days 30-32. If you are later than cycle day 34, call our office for a pregnancy test.

Letrozole works based on its ability to reduce estrogen levels, Low estrogen levels of any cause can cause a woman to have symptoms. Reported side effects are hot flashes, mood swings, breast tenderness, nausea, and headaches. These are not serious and usually go away once the medication is stopped for that cycle. Near the time of ovulation, some women report mild discomfort or "twinges" in their ovaries. In rare circumstances, the ovary may be over stimulated causing abdominal discomfort. If you experience abdominal pain, bloating, or distension, you should call your nurse immediately. Ovarian enlargement will subside after the cycle is discontinued. Patients may also experience blurred vision and spots before the eyes. If these symptoms occur, please report them at once.

Due to the risk of residual cysts on the ovaries following a Letrozole cycle, it is medically necessary to have the ovaries "checked" by ultrasound before proceeding with another cycle. This is routinely done day one (1) through five (5) of a menstrual cycle.

The incidence of multiple births is only slightly increased with the use of fertility medications. It is reported that over 90% of all deliveries are single births and 5%-8% are twin gestations. There is a less than 1% incidence of triplets or more.