Patient Instructions- Medications, Injectables

INTRODUCTION

It is important to remember that each patient has her own unique response to the medications she receives and that each ART cycle is different. This means that not only are you unlikely to respond as others do, but you may actually respond differently from one cycle to the next. For this reason, you will find that your treatment and testing differ from those of other patients. Please do not compare your test results and medication plans with others going through treatment. Although you may find much in common with other patients here, please keep in mind that IVF is a very private matter and that some patients do not feel comfortable discussing this.

MAXIMIZING CHANCES FOR SUCCESS

Females:

- Avoid all medications other than Tylenol. If you are taking other prescription medications, check with the physician prior to beginning your treatment cycle.
- No smoking or alcohol use. Studies show both can result in lower pregnancy rates and a greater risk of miscarriage.
- No more than two caffeinated beverages per day.
- Avoid changes in diet or weight loss during IVF cycle. A healthy well-balanced diet works best.
- Refrain from intercourse three to four days prior to egg retrieval and following embryo replacement until pregnancy determination is made.
- Normal exercise may continue unless enlargement of your ovaries produces discomfort.
- Avoid hot tubs or saunas.

Males:

- Fever greater than 100.4 degrees F one to two months prior to IVF treatment may adversely *affect* sperm quality. If you are sick, please take your temperature and notify us of any illnesses.
- Sitting in hot tubs and saunas is discouraged. Even a single episode in the hot tub can adversely affect sperm function. Please refrain from this for at least three months prior to treatment.
- Drugs, alcohol and cigarette smoking should be avoided for three months prior to treatment and at all times during the ongoing IVF treatment cycle to get the best results.
- If you have a history of genital herpes infection, you must report any pre herpes symptoms, active lesions or healing herpes lesions. The occurrence of any of these stages in either the male or the female will require cessation of the IVF treatment.
- Do not begin any new exercise, sport or marathon training within three months of planning IVF. If you are a runner, please decrease jogging to a total of less than 20 miles a week.
- Refrain from wearing tight underwear.
- Abstain from intercourse for at least three days, but not more than seven days prior to collection of semen for egg collection and during treatment.

MEDICATIONS

Lupron (Ieuprolide acetate) is an analog of gonadotropin releasing hormone (GnRH). When given as a subcutaneous (*Just below the skin)* injection, it will stimulate the "turning-off" of your pituitary gland. We are able to take advantage of the suppressive actions to improve the recruitment of multiple follicles and prevent premature ovulation. Room temperature storage is advised. Be sure not to keep each vial past the expiration date. One vial will provide approximately four weeks of injections.

Side effects are short term. Hot flashes may be felt when your estrogen level lowers and will disappear when you begin gonadotropin injections. Occasionally, patients experience headaches as well.

A consistent time within the same hour each day should be chosen to give the injection. Lupron comes in a kit with alcohol wipes, small syringes, and one container of medicine. The supplies can be carried in your purse and the shot can be conveniently given in a couple of minutes.

Lupron Injection Instructions:

1. Wash and dry hands thoroughly.
2. Assemble supplies: two alcohol wipes one tissue, one syringe, medication.
3. At first use, remove and discard plastic cap off the medication.
4. Clean the Lupron vial with an alcohol wipe.
5. Remove cap from syringe exposing needle.
6. Pull the syringe plunger back until its tip is at the proper dose mark. Insert needle straight and firmly into the rubber center of the vial and push the plunger all the way in.
7. Turn the vial upside down.
8. Pull the syringe plunger down filling the medication slightly below the line adding 0.2cc (or 0.lcc if that is your dose) and remove from the vial.
9. Hold the syringe needle up and flick with finger to remove any air bubbles.
10. Hold the syringe and new alcohol wipe in the right hand.
11. Choose injection site, rotating sides daily. Pinch the skin gently with the left hand.
12. Wipe area then save wipe to wipe the area again after the injection.
13. Holding the syringe like a dart, perpendicular to the skin, briskly insert small needle quickly and entirely into the skin.
14. Slowly inject all medication, release the pinch and remove syringe. Cover the area with alcohol wipe then with tissue.
15. When you begin gonadotropin injections, Lupron dosage will usually decrease to half (O.5mg) or be discontinued. Medication may continue through the day of hCG administration or may be terminated when you begin gonadotropin injections.

Antagon and Cetrotide (ganirelix acetate) are antagonists (blocks the action) of gonadotropin releasing hormone (GnRH). Its effect action is similar to Lupron in that Antagon and Cetrotide prevent premature ovulation. Antagon or Cetrotide injections are begun later in the treatment cycle and duration of treatment is usually three or four days. As a drop in estrogen level may be associated with the start of Antagon or Cetrotide injections, your physician may modify the gonadotropin dose and medication prescribed. Side effects are infrequent, minor and usually limited to redness or soreness at the site of injection.

The medication comes in pre-filled syringes.

1. Hold the syringe and alcohol wipe in the right hand.
2. Choose injection site, rotating sides daily. Pinch the skin gently with the left hand.
3. Wipe area then save wipe to wipe the area again after the injection.
4. Holding the syringe like a dart, perpendicular to the skin, briskly insert small needle quickly and

entirely into the skin.

5. Slowly inject all medication, release the pinch and remove syringe. Cover the area with alcohol wipe then with tissue.

Injectable Gonadotropins: Repronex and Bravelle are brand names for hMG. T hMG is a combination of the hormones FSH (follicular stimulating) and LH (luteinizing). Follistim & Gonal-F contain only pure FSH. They affect the ovaries directly to rescue multiple follicles before normal selection of a single dominant follicle. Follistim and Gonal-F may be given as a less painful subcutaneous (under the skin) injection.

Side *effects* may include abdominal distention/discomfort, bloating sensation, mood swings, fatigue or restlessness. In most cases, the side *effects* are relieved by follicular aspiration. Multiple births may occur with this medication.

The medication comes in ampules or vials of powder which need to be diluted with water. Several such ampules or vials are combined into just one syringe with water (diluent).

Repronex/Bravelle Intramuscular Injection:

1. Wash and dry hands thoroughly.
2. Assemble supplies: one 3cc syringe, one 25-30 gauge 1.5" needle, one 22 gauge 1.5" needle, two alcohol wipes, one tissue, one ampule of water, and the designated ampules of medication.
3. Unwrap supplies.
4. Attach syringe to a 22 gauge 1.5" needle.
5. Using an alcohol wipe, cover finger and thumb and snap open all glass ampules. For Repronex, remove the plastic protective caps and wipe the rubber stopper. Insert the needle through the rubber stopper.
6. Remove needle cover and draw l cc of water into the syringe, then distribute between the powder and ampules. It dissolves immediately.
7. Fill the syringe with all the medication by inserting the needle as far into the ampule as possible and at an angle, then pulling back the syringe plunger. Stop before it reaches the end of the syringe, even if there is more medication. Push the syringe straight up and flick firmly with the finger. Remove all excess air in syringe.
8. Change needles to the thinner 25 gauge 1.5" needle and express a drop of medication.
9. Holding the syringe and new alcohol wipe in the right hand.
10. Select injection site, rotating sides for comfort. Pinch your skin gently with the left hand. Standing on the opposite leg relaxes the muscle to be used.
11. Wipe skin with alcohol then slide under left thumb.
12. Hold syringe like a dart, perpendicular to the skin, insert needle quickly to 1 1/2" of depth to pass the skin and fat to the muscle.
13. Slowly inject medication and withdraw the needle swiftly.
14. Slide alcohol wipe over the area then wipe area with a Kleenex.
15. All supplies are discarded in a milk carton or strong containers after single use. You may also place all needles in a glass jar with a dilute bleach solution.

Gonal-F / Follistim / Bravelle Subcutaneous Injection:

1. Wash and dry hands thoroughly.
2. Assemble supplies: one 3cc syringe, one 25 gauge 1.5"needle, one 25 gauge 5/8"needle, two alcohol wipes, one tissue, one ampule or vial of water, and the designated ampules of medication.
3. Using an alcohol wipe, cover finger and thumb and snap open all glass ampules or remove the plastic cover over the vial's rubber stopper.
4. Remove needle cover and draw 0.5cc of water (1cc for Follistim) into the syringe then distribute

between the powder and ampules. It dissolves immediately.

5. Slowly turn the vial upside down, the medication will not run out. Fill the syringe with all the medication by inserting the needle as far into the ampule as possible and at an angle then pulling back the syringe plunger. Stop before it reaches the end of the syringe, even if there is more medication. Push the syringe straight up and flick firmly with the finger. Remove all excess air in the syringe.
6. Switch to the shorter (5/8 inch) 25 gauge needle.
7. Hold the syringe needle up and flick with finger to remove any air bubbles.
8. Hold the syringe and new alcohol wipe in the right hand.
9. Choose injection site rotating sides daily. Pinch skin gently with the left hand.
10. Wipe area then save wipe to wipe the area again after the injection.
11. Holding the syringe like a dart, perpendicular to the skin, briskly insert small needle quickly and just under the skin.
12. Slowly inject all medication, release the pinch and remove syringe covering area with alcohol wipe then with tissue.

Human chorionic gonadotropin (hCG, brand name Ovidrel, Pregnyl, Novarel) is a hormone closely similar in its biologic effect to LH, which normally induces ovulation. hCG initiates follicular changes, triggering ovulation approximately 42 to 48 hours later. Retrieval must occur before ovulation or the follicles will be empty. hCG is also secreted by the placenta during pregnancy. hCG is available only by intramuscular injection. Room temperature storage is adequate prior to dilution. The powder is diluted just prior to injecting. Side effects similar to those encountered with the above mentioned medications may be briefly noticed.

hCG Intramuscular Injection:

1. Timing of hCG is critical and should be performed within 30 minutes of the designated time.
2. Wash and dry hands thoroughly.
3. Assemble supplies: one 3cc syringe, one 22 gauge 1.5" needle and one 25 gauge 1.5" needle, 2 alcohol wipes, one tissue, and medication.
4. Remove all wrappings, snap off plastic caps from medication.
5. Attach syringe and needle. Pull the syringe plunger back until its tip is at the proper dose mark. (l cc or l ml).
6. Wipe each vial with alcohol wipes.
7. Remove cover from the needle, insert straight and firmly into the center rubber top of the water. Push the plunger all the way in.
8. Turn the vial upside down.
9. With the tip of the needle in the liquid medication, pull plunger of syringe to fill to l cc of water then remove.
10. Insert water into the powder and gently roll between hands with needle inside. The powder dissolves rapidly. Holding the vial upside down, slowly pull back on the plunger to obtain all the medication, and then remove the needle. Do not let the plunger reach the end of the syringe.
11. Remove air bubbles from the syringe by firmly flicking with a finger.
12. Change needle to a 25 gauge 1.5" needle.
13. Choose injection site, as done for injectable gonadotropins, and pinch skin with the left hand.
14. Hold syringe and alcohol wipe in right hand.
15. Wipe skin and slide alcohol wipe under left thumb.
16. Holding the syringe like a dart, perpendicular to the skin, inject 1 1/2" and quickly inject medication then withdraw needle briskly.
17. Slide alcohol wipe over the area then with tissue.
18. Dispose of supplies safely in a strong container.

Medications given post egg retrieval

Medrol, a steroid hormone, is given daily for a period of four days to assist pre-embryo implantation. This is given orally twice a day for a total of four to seven days.

Progesterone is a hormone produced by the remains of the ruptured follicle (corpus luteum). Progesterone helps the lining of the uterus become thick and is therefore essential for the implantation of the pre-embryo. As estrogen levels are higher in stimulated ovarian cycles, it is necessary to administer progesterone supplements to establish a normal estrogen/progesterone ratio. Therefore, hCG or additional progesterone supplements may improve the uterine lining and enhance the possibility of pre-embryo implantation.

Please contact your doctor if any of the following occur:

- Fever greater than 100.4°F that lasts for more than two hours
- Excessive vaginal bleeding
- Unusual and increasing pelvic area discomfort
- Difficulty with urination or change in bowel activity
- Nausea, vomiting or diarrhea
- Sharp or shooting pains
- Pain or burning during urination
- Abdominal swelling
- Unusual back pain