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Aykut Bayrak, M.D. Injection Instructions

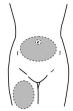
Tips:

- One mL = One cc
- Needles are **sterile**, do not touch them before using them to inject and only use them **once**.
- Wash your hands before preparing and injecting your medications. Use a clean surface to prepare your medications.
- Rotate injection sites do not stay in the same exact spot for each injection.
- When in doubt about a medication dosage, please call the office for clarification. DO NOT GUESS!!
- The nurse or the doctor is on call 24/7. Please call 310-920-3286 for any questions and try to call before 9 pm.
- Read all of the medication labels before taking the medication to ensure that you are taking the correct one
- Report all medication errors and unusual reactions to your coordinator as soon as possible.

There are two types of injections that you will be administering throughout your IVF cycle:

1. Subcutaneous Administration (Sub Q)

Y A Sub Q injection is administered on either the top of the thigh or around your abdominal area as shown below



YWhen injecting subcutaneously, clean the injection site with an alcohol pad and allow the area to air dry

YRemove the cap from the needle

YPinch a large area of skin and inject at a 90 or 45 degree angle as shown below

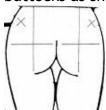


YSlowly inject the medication into the surface of the skin YHold the syringe at the site for 10-15 seconds and withdraw the needle

YDispose of the needle in a sharps container

2. Intramuscular Administration (IM)

YAn IM injection is administered on the upper outer section of the buttocks as shown below:



Y To locate the correct area, divide the buttock into four quadrants. Use the upper outer quadrant for the injection site.

YWipe the area with an alcohol pad and allow it to dry

YStretch the skin at the injection site and insert the needle at a 90 degree angle with a quick motion and then release the skin.

YPull the plunger back slightly and check for blood. If blood appears in the syringe, pull the needle out and inject again in a new injection site. If there is no blood, inject the medication with a slow, steady motion. YRemove the needle and discard in the sharps container.

BCP (Birth Control Pills)

Please take active pills only, which are the first three rows of your pill pack (21 pills). DO NOT TAKE THE LAST ROW OF PILLS (7 pills) unless otherwise instructed by your clinical coordinator. Stop taking active pills on the day after

your calendar reads LAST BCP. If you need a refill, please contact your clinical coordinator.

Lupron (Leuprolide Acetate)



Lupron is taken to suppress your FSH and LH hormones. Lupron is a Sub Q injection (stomach or thigh) and is injected the same time every day in the morning. Lupron comes in a multi-dose vial meaning that you will be using the same vial for multiple injections. Once the cap is removed from the vial, it should be refrigerated. Instructions for lupron:

- 1. Remove cap from the vial and discard. Wipe off the top of the vial with an alcohol pad. Before every injection, always wipe the vial top with an alcohol pad.
- 2. Insert the needle into the middle of the vial and invert the bottle over the needle.
- 3. Pull the plunger of the syringe down and withdraw the medication to the appropriate mark (either 10 or 5 units). Please verify your lupron dose daily by checking your calendar.
- 4. Remove the needle from the vial and inject sub Q.

Dexamethasone 0.75 mg

This is a low-dose steroid tablet given to decrease the inflammatory response of your body to foreign bodies (like an embryo). Dexamethasone should be taken in the morning with food. Dexamethasone may cause insomnia and increased appetite. It is a medication that is taken throughout your IVF cycle. If you run out, you will need to contact the pharmacy for a refill.

Cetrotide 125 mcg



Cetrotide is a sub Q injection (stomach or thigh) and is injected at the same time every morning. Each vial of cetrotide is good for two doses and should be kept in the refrigerator. Instructions for cetrotide:

1. Take the cap off the vial and throw it away. Wipe off the vial top with an alcohol pad.

- 2. Next, take the pre-filled syringe of water and remove the cap. Once it's removed, screw the yellow needle onto the pre-filled syringe and remove the cap from the needle.
- 3. Then, insert the needle into the vial of Cetrotide and slowly inject all of the water into the vial. Once you have injected the water, remove the needle and throw it into the sharps container.
- 4. Gently roll the vial to mix the powder until you obtain a clear solution. DO NOT SHAKE THE VIAL TO MIX.
- 5. You will then take your 1 mL insulin syringe and insert the needle into the vial. Making sure the needle tip is in the solution; withdraw to the 50 mark on the syringe. 50 units is equivalent to 125 mcg of cetrotide.
- 6. Remove the needle from the vial and inject sub Q.
- 7. Put the vial containing the rest of the medication in the refrigerator for use the following day.

Ganirelix Acetate 125 mcg



Ganirelix acetate is a sub Q injection. It can be stored at room temperature. You will need to split the pre-filled syringe into two doses using a sterile vial (this should be provided by the pharmacy).

- 1. Inject the pre-filled syringe into the sterile vial and put the syringe into the sharps container.
- 2. Using a ½ mL insulin syringe, withdraw 25 units from the sterile vial. 25 units is equivalent to 125 mcg of ganirelix.
- 3. Save the vial in the refrigerator with the remaining medication for the following day.

E2V 4 mg Injection (Delestrogen)

E2V (Delestrogen) is an intramuscular injection (IM) and is injected in the evening. It can be stored at room temperature away from direct sunlight. Injection instructions:

- 1. Remove the foil seal from the top of the vial and wipe with an alcohol swab.
- 2. Attach an 18 g needle (pink) to a 1 mL syringe.
- 3. Insert the needle into the center of the vial and withdraw **0.2 mL of Delestrogen** which is equivalent to **4 mg.**

- 4. Remove the needle from the vial and remove your 18 g needle (pink) from the syringe. Attach the 22 g needle (grey) or 25 g needle (blue) to inject IM.
- 5. Please note that this dose may be changed by the doctor following your ultrasound. Typically, this is increased to **6 mg**, which equals **0.3 mL**.

E2V suppository (1 or 2 mg)

The E2V suppository is often labeled Estradiol Valerate suppository. Please make sure you are using the correct suppository. If you have any questions, please call your coordinator. The suppositories are inserted vaginally at bedtime. Please insert all vaginal suppositories as high in the vaginal canal as possible. These should be kept refrigerated.

Follistim Pen

The Follistim Pen is a sub Q injection and should be injected around the same time each night. It should be kept refrigerated when not in use, but is ok outside the refrigerator for 28 days. The cartridges come in 900, 600, and 300 unit volumes. The manufacturer has added extra medication (75-100 units) into each cartridge. Instructions:

1. You will need the following supplies: Follistim pen, Follistim cartridge,



alcohol swabs, pen needle

- 2. Remove the blue cap from the pen and unscrew the yellow portion of the pen.
- 3. Unwrap the cartridge (make sure to note the volume of the cartridge: 300,600, or 900 units) and insert it into the yellow portion of the pen (with the narrower end in first)
- 4. Screw the pen back together and clean off the yellow top with an alcohol swab.
- 5. Remove the paper covering from the needle and screw it onto the top of the pen. Leave the needle caps on for now.
- 6. Locate the dial at the bottom of the pen. Grasping the ridged yellow portion, turn it towards yourself, and line up your prescribed dose with the yellow arrow.

- 7. If you go past your dose accidentally, keep turning the dial towards yourself until it loosens up and you can wind it back down to zero. Start again.
- 8. Remove the cap and needle sheath from the needle. Inject sub Q by inserting the needle into your stomach or thigh and pressing down on the end of the pen.



9. Once the injection has been completed, leave the needle in the skin for a count of 3. If the needle is removed immediately, there could still be medication being expressed from the pen. Finally, unscrew the needle and dispose in your sharps container. Put the pen with the cartridge inside (unless it's empty) in the refrigerator until the next injection.

Gonal F Pen

The Gonal F pen is a sub Q injection to be injected around the same time each night. It should be kept refrigerated when not in use, but is ok outside the refrigerator for 28 days. The pens come in 900, 450, and 300 unit volumes. The manufacturer has added extra medication (75-100 units) into each pen.

Instructions:

- 1. Supplies you will need: Gonal F Pen, pen needle, alcohol swabs
- 2. Make note of the volume of medication in the pen (300, 450, 900 units). Remove cap from pen.
- 3. Clean off the top of the pen (where the needle goes) with an alcohol swab.
- 4. Remove the paper cover from the needle and screw needle onto the pen.
- 5. Locate the black arrow on the red portion of the pen. Grasp the white dial (where the numbers are) and turn that section until your prescribed dose lines up with the arrow.
- 6. Once the correct dose is lined up, hold onto the white end of the pen and pull out firmly as far as it will go. Red numbers will appear: these confirm the dose you are taking (your dose will be the closest number to the body of the pen).
- 7. Inject sub Q by inserting the needle into the stomach or thigh and press down on the white end of the pen until it stops. It will make a clicking noise, which can also help you confirm your dose. There is one click for every 37.5 units being injected.



8. Once the injection has been completed, leave the needle in the skin for a count of 3. If the needle is removed immediately, there could still be medication being expressed from the pen. Finally, unscrew the needle and dispose in your sharps container. Put the pen (unless it's empty) in the refrigerator until the next injection.

Gonal F Multidose

Gonal F Multidose is the same medication as in the pen, but has a different delivery system. Multidose comes in two volumes: 1050 units or 450 units. It is a sub Q injection to be injected around the same time each night. Since it is a Multidose vial, you can use the same vial of medication for multiple injections. Before use, it can be kept at room temperature. Once you start using it, store in the refrigerator.



Instructions:

- 1. Supplies you'll need: Multidose box containing small syringes, powder vial, pre-filled water syringe, and alcohol swabs.
- Remove the powder vial and pre-filled water syringe from the plastic package. Remove the cap from the vial and clean with an alcohol swab.
- 3. Remove the cap from the pre-filled syringe and insert the needle through the center of the vial top. Inject all of the water into the vial. Gently swirl the vial to mix the powder and water.
- 4. This mixture now equals either 1050 units or 450 units, depending on which Multidose kit you're working with. Keep in mind that there is some overfill added by the manufacturer, so the 1050 unit kit actually contains about 1200 and the 450 actually contains about 600 units.
- 5. Using one of the small syringes form the box (ONLY use the syringes supplied in the box to inject this medication), insert the needle into the center of the vial and draw up to your prescribed dose. Remove the needle from the vial.
- 6. Inject the medication sub Q into your stomach or thigh.

Progesterone in Ethyl Oleate/Progesterone in Oil

These are intramuscular injections (IM). The injection is taken around the same time each night. There is no mixing involved and each vial can last for 5-10 injections. It can come in either 50 mg/1mL or 100 mg/1mL

concentrations. Please confirm with your coordinator which dose you will be taking. Instructions:

- 1. Supplies: vial of progesterone, 3 cc syringe with 22 gauge (dark grey) needle, 18 gauge (pink) needle (if you have progesterone in oil), 25 gauge (blue) needle (either 1 inch or 1 ½ inch in length), alcohol swabs
- 2. Wipe off top of vial with alcohol.
- 3. Draw about 1 mL of air into the syringe. Inject this air into the vial.
- 4. If you have progesterone in oil, replace the 22 g needle with the 18 g needle. If you have progesterone in Ethyl Oleate, please keep the 22 g needle on the syringe.
- 5. Withdraw 1 mL (or the dose prescribed) of the progesterone into the syringe.
- 6. Remove the needle from the syringe and screw on the 25 g (blue) needle. Remove any air bubbles.
- 7. Inject the medication IM.
- 8. Once you have injected the medication, apply pressure to the injection site and massage the area for a couple of minutes. Progesterone tends to leave a knot or ball under the surface of the skin. You can also apply a heating pad at the site which will help the knot dissolve. Alternate the side of the body you use each night: left to right.

Medications that come in individual vials

Gonal F 75 unit vials

Gonal F individual vials should be stored at room temperature. Gonal F can be injected sub Q or IM. Instructions for injection:

- 1. Line up the number of vials as directed by your clinical coordinator. Remove the cap from each vial and wipe with an alcohol pad.
- 2. Take one of the pre-filled syringes of water from the Gonal F packaging and remove the white cap off the syringe. Attach the pink needle to the syringe.
- 3. Insert the needle of the pre-filled syringe into the first vial of Gonal F. Inject the water into the vial and discard syringe and needle into sharps container.
- 4. Roll the vial to mix the contents.
- 5. If you're just using one vial of Gonal F, skip to #7.
- 6. If you're using multiple vials of Gonal F, take a 3 mL syringe with a 22 G needle and withdraw the mixture from the vial. Inject the mixture into the second vial. Continue this step until all the vials are mixed.

7. Once all of the vials are mixed, withdraw mixture into the 3 mL syringe. Remove the 22 G needle and screw a 27 G needle (grey) onto the syringe. Inject sub Q. (If doing IM, switch the 22 G needle with a 25 G needle (blue) and inject IM).

Menopur/Bravelle

Menopur and Bravelle are medications given in a sub Q injection and are stored at room temperature. Instructions for injection:

- 1. Remove the needle off of a 3 mL syringe. Screw a Q cap onto the syringe.
- 2. Remove caps from 1 water vial and the number of powder vials as directed by the clinical coordinator. Wipe all with an alcohol wipe.
- 3. Attach the Q cap to the top of the water vial by pushing it onto the top of the vial. Withdraw 1 mL of the water into the syringe.
- 4. Attach the Q cap onto the powder vial. Inject the water into the powder. Leaving the Q cap and syringe attached to the vial, gently swirl the solution to mix.
- 5. Once mixed, withdraw the solution back into the syringe.
- 6. If using multiple powder vials, inject the mixture into the second powder vial, mix, and draw back into the syringe. Repeat for each additional powder vial. The volume will stay the same, but the dose (concentration) will increase.
- 7. Once all of the powder(s) have been mixed and drawn back into the syringe, gently tap the sides of the syringe to remove air bubbles.
- 8. Remove the Q cap and twist on a 27 G (grey) needle.
- 9. Inject sub Q.

Luveris

Luveris is a medication that contains only LH hormone and no FSH. It is a sub Q injection (stomach or thigh). Instructions:

- 1. Supplies needed: Luveris powder and diluent (liquid) vials, 3 mL syringe with a 22 g 1.5 inch needle attached, 27 gauge $\frac{1}{2}$ inch needle, alcohol swabs.
- 2. Remove the caps from the vials. Clean off vial tops with alcohol swab.
- 3. Using the 3 mL syringe with the 22 gauge needle, withdraw all of the diluent from the vial. Inject the diluent into the powder vial.
- 4. Keeping the needle in the powder vial, swirl the vial gently to mix the solution. Draw the mixture back into the syringe.
- 5. Unscrew the long needle and screw the 27 gauge $\frac{1}{2}$ inch needle onto the syringe. Tap the sides of the syringe to loosen any air pockets/bubbles. Gently press up on the plunger to remove the air. Stop once you see a small drop come out of the needle.
- 6. Inject sub Q. Once the injection has been completed, discard the syringe and needles into the sharps container.

hCG (human chorionic gonadotropin, Novarel, Pregnyl)

HCG is a medication used during IUI cycles to induce ovulation and in IVF cycles to prepare the eggs for retrieval. It is very important to do this injection at the time given to you by your coordinator. It can be done either sub Q or IM, please check with the coordinator as to which method you should use. Instructions:

- 1. Supplies: 3 mL syringe with 22 g 1 $\frac{1}{2}$ inch needle (dark grey), hCG powder and water vials, 27 g $\frac{1}{2}$ (grey) needle (if doing sub Q), 25 g 1 inch or 1 $\frac{1}{2}$ inch (blue) needle (if doing IM), alcohol swabs
- 2. Uncap powder and water vials, clean off with alcohol swab
- 3. Draw up 1 mL of water into the syringe (the water vial may come filled with 10 mL discard the rest). Inject the water into the powder vial.
- 4. Keeping the needle within the vial, gently swirl the vial to mix the water and powder together.
- 5. It can be tricky to withdraw the mixture from the vial. Holding the vial upside down with the needle still inside, locate the opening of the cork in the bottle neck. Looking inside this opening, pull the needle tip down low inside the cork.
- 6. Pull back on the plunger and withdraw as much of the mixture as you can. There will always be small drops that you cannot get out, so do not worry if you see some.
- 7. Switch the needle to a 25 g or 27 g for injection.
- 8. Inject as directed by your coordinator (sub Q or IM).

Needles and Syringes



3 cc syringe (use for hCG, Menopur, Bravelle, Luveris and progesterone injections)



Lupron Syringe (also used for Cetrotide and Ganirelix)



25, 18, and 27 gauge needles



1 cc syringe (for E2V injection)