NHS
Manchester University
NHS Foundation Trust

Saint Mary's Hospital
Department of Reproductive Medicine

Antagonist Protocol Booklet

Patient Name:	Hospital Number:



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1. Overview

1. Please call the unit on (0161) 276 6000 option 1 on the first day of your next period (the day you wake up bleeding).

2. Inform the unit that you are on the short protocol, you have all your medication at home and that you have attended your teach appointment.

3. If we are able to accept you for treatment, we will give you instructions on when to start your injections

4. In some circumstances we may ask you to attend for a blood test and ultrasound scan on day 2 or 3. In this case, we will telephone you in the afternoon with further instructions.

5. You will be given a date to start your daily stimulation injection. There are different types of stimulation drugs some common ones used are Bemfola and Menopur. They are all similar in their effects. The stimulation injections encourage development of several follicles in your ovaries, each of which contains an egg. The response of your ovaries to stimulation depends on your ovarian reserve and this will have been discussed with you at your initial IVF appointment.

6. On the 5th day of stimulation injections you will commence an additional injection called Cetrotide, which suppresses your luteinising hormone (LH) surge, to prevent ovulation. You will take your Cetrotide **alongside** your stimulation injection. Please continue both of these injections until you are advised to stop.

7. If you have been prescribed Metformin tablets following your consultation, please continue to take these until the day of egg collection.

8. Once you have started your injections, you will be monitored by regular blood tests and scans. These tests give us an indication of how your ovaries are responding to stimulation.

9. Your first monitoring scan will be on day 10 of stimulation and we will advise you of this date and time. You will be advised if you also require a blood test. Depending on the result of this we may ask you to return every 2 or 3 days until your tests show that you are ready for egg collection.

10. If required, blood tests are taken between 7.45 am and 8.30 am in the morning to ensure that we get the results back by lunchtime. Scans are carried out from 8.30 am and you will be given the earliest available appointment.

11. Once your blood and/or scan results have been reviewed, you may be required to alter the dose of your stimulation drug. If an alteration is required, you will receive a telephone call in the afternoon from one of the nurses who will inform you of your new dose. Please ensure that you are able to take a call or have a voicemail service on your telephone. If you **do not** receive a telephone call to alter your dose, please continue taking your stimulation drug at the same dose.

    It is important that you are contactable throughout the whole of your treatment. Please provide alternative contact numbers where required.

    Usually, it takes 10-14 days of stimulation until you are ready to take your final injection in preparation for your egg collection. As everybody responds differently you may find that you are ready earlier or later than this.

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12. On the day that your follicles are at the optimum size, you will be asked to administer your final injection that night. The final injection is the 'trigger' for your egg collection and you may be asked to take Gonasi or / and Buserelin for this. It is important that your take this injection at the time provided. If you miss this time slot please **do not** take it at any other time. Contact the Department the following day and where possible this will be re-arranged. Please note that missing your final injection or taking it at the wrong time could result in failure or cancellation of your treatment.

13. You must fast from 12 midnight the night before your egg collection. This means no food or drink, including chewing gum or sweets. On the day of your egg collection you will be required to report to Ward 90, which is located on the first floor of the Old Saint Mary's building.

14. On this day your partner will be required to provide a semen sample, unless frozen or donor sperm is being used. Prior to providing this sample, 2-5 days of abstinence from intercourse or ejaculation is required.

15. Following the egg collection, before you are discharged from the ward you will be informed of how many eggs were collected.

16. The day after your egg collection, the embryologists will contact you to inform you if and how many of your eggs fertilised. They will also inform you when to come back to the unit for embryo replacement, which will usually take place 2, 3 or 5 days after the egg collection.

17. If your eggs fertilise successfully and you are having a fresh embryo transfer, you will be required to start a form of luteal support (progesterone) the morning after egg collection. The nurse will instruct you how to take this.

If you have any questions or concerns throughout treatment, please ring the nurses on (0161) 276 6000 (option 2). You may be required to leave a message but all calls will be returned.

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2. Drug Chart

Day of stimulation	Date	Stimulation drug	Cetrotide	Additional drugs	Please tick once taken
1			Nil		
2			Nil		
3			Nil		
4			Nil		
5			0.25		
6			0.25		
7			0.25		
8			0.25		
9					
10					
11					
12					
13					
14					
15					
16					

Paperwork completed by:
Name and signature: ……..

Please attend for ALL blood tests between 7.45 am and 8.30am. The nurse will inform you of when you need to attend for your blood tests and scans. Please write down the date in your chart above.

Scan times will be confirmed once stimulation has been started.

Once you start your stimulation drug please do not stop this unless advised to do so by a nurse or doctor. It takes approximately 10-14 days of stimulation until you are ready for your final (trigger) injection.

Please choose a convenient time between 7.00 am-10.00 am to take your injections. You must stick to this time throughout your treatment.

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3. Your Final Injection

You are now ready to take your trigger injection. The nurse will inform you whether this is to be Gonasi or Buserelin.

Gonasi	5,000 IU OR 10,000 IU	OR Buserelin 2mg
Injection to be given at: **_____:_____ hours** **On: Day_____ Date _____**		

Please report to Ward 90 at 7.30 am on the date given to you over the telephone.

Please bring:

- Dressing gown
- Slippers
- Sanitary towels
- Something to read

Don't Forget!

- Nothing to eat or drink, including no chewing gum from 12 midnight the night before your egg collection.
- Partner to abstain from ejaculation for 2-5 days if providing a semen sample on the day of egg collection.
- Leave valuables at home.
- Do not wear make-up or jewellery. Do not wear nail varnish or false nails.

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4. Menopur

What does it do?

Menopur stimulates the follicles in your ovaries, with the aim of an egg developing within each follicle.

Possible side effects:

- Local irritation at injection site.
- Ovarian Hyperstimulation Syndrome (OHSS).

Signs/symptoms to look out for include:

- Abdominal swelling/pain.
- Shortness of breath.
- Extreme thirst.
- Nausea/vomiting.
- Headaches.
- Problems passing urine (small amounts or none at all).

If you experience any of these symptoms, you must inform a nurse at the unit as soon as possible. If the unit is closed, please telephone the Emergency Gynaecology Uni (in the main hospital) on (0161) 276 6204.

How to prepare Menopur:

1. Remove the product from the box.
2. Open the top tray, which will contain pre-filled syringes of water, a vial of powder and a needle.
3. Remove the powder vial from the tray.
4. Flick the blue cap off.
5. Remove the grey lid off the pre-filled syringe of water and twist the orange needle on to the top.
6. Push the needle through the grey bung on the powder vial.
7. Push all the water into the vial of powder. If you have two pre-filled syringes of water, remove the needle from the first syringe and attach it to the second and inject into the vial of powder.
8. The powder should all dissolve. If not completely dissolved, give the vial a gentle roll. Do not shake.

How to inject Menopur:

1. Take a needle from the large box.
2. Remove needle from the packaging and remove the clear lid.
3. Pierce the grey bung and tip the vial upside down.
4. Pull down plunger to just past your required dose.
5. With the needle pointing upwards, flick the syringe so that any air bubbles move to the top.
6. Push plunger up and push out the air, ensuring the top of the black plunger lines up with your required dose.
7. Pinch an inch of skin below your belly button.

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8. Inject at a 45 degree angle.
9. Inject the full dose.
10. Remove the needle.
11. Dispose in sharps bin provided.
12. Put the remaining solution of Menopur in the cupboard for your next dose.

Storage Information

Before reconstitution, store in a refrigerator (2°C-8°C) in its original container to protect from light.

After reconstitution, the solution may be stored for a maximum of 28 days at not more than 25°C.

Do not freeze.

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5. Cetrotide

What does it do?

Cetrotide blocks the effects of the natural hormone called gonadotropin-releasing hormone (GNRH). GNRH controls the secretion of another hormone called luteinising hormone (LH) which induces ovulation during the menstrual cycle.

Possible side effects:

- Mood swings.
- Hot flushes.
- Headaches/nausea.
- Vaginal dryness.
- Local irritation at injection site.

How to use Cetrotide:

1) Remove from packaging.
2) Remove blue cap from vial of powder.
3) Take pre-filled syringe of water and remove the cap.
4) Attach the yellow needle (larger needle) on the end of pre-filled syringe of water.
5) Pierce the grey bung with the needle and push all of the water into vial.
6) Once all the powder has completely dissolved, draw up all solution back into the syringe.
7) Remove the large yellow needle and dispose in sharps bin provided.
8) Attach on grey smaller needle.
9) With the needle pointing towards the ceiling, flick the syringe so that any air bubbles move to the top.
10) Push the plunger up so no air is in the syringe.
11) Pinch an inch of fat below your belly button.
12) Inject at 45 degree angle
13) Push plunger down to administer Cetrotide
14) Dispose of needle and syringe in to sharps bin

Storage information:

Store Cetrotide in the refrigerator.

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6. Gonasi

What does it do?

This trigger injection is used to mature the egg within the follicle. It is your final injection.

Possible side effects:

- Headaches.
- Feeling restless or irritable.
- Depression.
- Breast tenderness or swelling.
- Local irritation at injection site.
- Exacerbation of OHSS symptoms.

How to use Gonasi:

1) Remove from packaging
2) Take pre-filled syringe from the tray, keep the white collar back-stop in place at all times.
3) Remove the dark grey cap from tip of the pre-filled solvent syringe
4) Attach the larger green needle to the end of pre-filled syringe of water.
5) Remove the flip-off cap from the vial containing powder
6) Slowly inject the solvent into the vial through the rubber stopper.
7) Once the powder has completed dissolved, draw up the solution back into the syringe.
8) Remove the large green needle and place into sharps bin.
9) Attach small grey needle to syringe.
10) With the needle pointing towards the ceiling, flick the syringe so that any air bubbles move to the top.
11) Push the plunger up so that no air is left in the syringe.
12) Pinch an inch of fat below your belly button.
13) Inject at 45 degree angle.
14) Push plunger down to administer all Gonasi
15) Dispose needle and syringe into sharps bin.

Storage Information

Store in a dry place below 25 degrees centigrade.

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7. Metformin

What does it do?

Metformin is prescribed during IVF treatment for some people with Polycystic Ovary Syndrome (PCOS) or for those with a high ovarian reserve. The use of Metformin can help to reduce the risk of Ovarian Hyperstimulation Syndrome (OHSS).

Possible side effects:

- Diarrhoea.
- Nausea/vomiting.
- Abdominal pain.
- Loss of appetite.

Owing to the risk of GI side effects, the dose can be gradually built up as follows: -

- 500mg twice a day for 3 days
- 500mg am and 1000mg pm for 3 days
- 1000mg twice a day

Metformin should be stopped at the pregnancy test, irrespective of the result of the test.

Storage information

Keep Metformin in the packaging in a cool, dry place.

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8. Progesterone

This is often given in the form of a vaginal or rectal suppository.

What does it do?

Progesterone is a natural female hormone, produced in the body.

It used in IVF treatment to help support the endometrium (lining of the womb) and a possible early pregnancy.

Possible side effects:

- Diarrhoea.
- Flatulence (wind).
- Soreness in your vagina or rectum.
- Headaches.

After using progesterone you may notice some leakage after the pessary has dissolved. Do not worry; this is quite normal when using medicines that are inserted into the vagina or rectum.

How to use

Always wash your hands before and after inserting the pessary.

To insert into the:

Vagina – place the pessary between the lips of the vagina and gently push the pessary upwards and backwards using your finger. Or applicator if one is available. Insert as far as it feels comfortable.

Rectum – gently push the pessary into the rectum foe about one inch. Your muscles will hold the pessary in place when it is in far enough. Squeeze your buttocks together for a few seconds. **This route can only be used with Cyclogest pessaries.**

Storage information

Store below 25 degrees centigrade in a dry place.

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9. Bemfola

What does it do?

Bemfola stimulates the follicles in your ovaries, with the aim of an egg developing within each follicle.

Possible side effects:

1. Local irritation at injection site.
2. Ovarian Hyperstimulation Syndrome (OHSS).

Signs/symptoms to look out for include:

- Abdominal swelling/pain.
- Shortness of breath.
- Extreme thirst.
- Nausea/vomiting.
- Headaches.
- Problems passing urine (small amounts or none at all).

If you experience any of these symptoms, you must inform a nurse at the unit as soon as possible. If the unit is closed, please telephone the Emergency Gynaecology Unit (in the main hospital) on (0161) 276 6204.

How to use Bemfola:

1. Take the syringe and needle out of the box.
2. Wash your hands and remove the peel tab from the injection needle.
3. Align the injection needle with the pen and gently push in. You will hear a click.
4. Remove the outer needle protection cap
5. Remove the inner needle protection cap.
6. Hold the pen with the needle pointing upright. Tap the pen slightly in order to make eventual air bubbles rise.
7. Push the dosage plunger until it stops and a small amount of fluid is seen. **If a small amount of fluid is not seen the pen should not be used.**
8. Turn the dosage plunger until the prescribed dose is aligned with the middle of the indent.
9. Pinch an inch of fat below your belly button.
10. Inject Bemfola at a 90 degrees angle.
11. Push the plunger until it stops.
12. Wait 5 seconds then remove the injection needle.
13. Dispose of the needle into the sharps bin provided.

Storage information

Store Bemfola in the refrigerator.
Do not freeze.
Store in the original packaging to protect from light.

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10. Sedation in IVF: Information for Patients having Egg Recovery

During the process of egg recovery the surgeon will place a scanning probe into the vagina in a very similar way to your previous scans. A fine needle is then inserted alongside the probe. When the needle is used to suck out the ripened eggs a momentary discomfort often occurs - once for each ovary. To help with this it is routine practice to use intravenous sedation and a short acting and very powerful pain relieving medication together rather than general anaesthetic. You will therefore be sedated and not fully unconscious. This is very safe.

You may have had a general anaesthetic in the past and feel you will not cope with sedation. Whilst there are some surgical reasons for general anaesthetic, these are rare and your surgeon will advise you if this is necessary. The vast majority of patients in the UK and throughout the world have sedation to enable egg recovery and are very satisfied with it. Sedation is recommended and preferred as the method for this procedure by the National Institute for Health and Clinical Excellence (NICE) and is our technique of choice in this unit. In a recent survey, well over 95% of patients were very happy with their experience and would have sedation again if it was needed. They also benefitted from low rates of nausea and vomiting and a shorter recovery and stay in hospital - often leaving by lunchtime.

During the procedure you will be fully monitored, which is routine. The surgeon will reassure you if necessary during the egg recovery procedure, but it is best to relax with the sedation and allow the surgeon to proceed.

Although the majority of our sedated patients do not remember any detail of the procedure itself or any discomfort, it is important that you understand that with sedation there is a possibility that you may remember some events during surgery and that you may feel the probe and possibly a little discomfort. Only with general anaesthetic would you be completely unaware.

We would strongly recommend that sedation is our preferred method for egg recovery. After a short period of recovery and a bite to eat and a drink the ward nurses will ensure that you are safe to leave us. Typically the whole process takes about 30 minutes, however if you do require a general anaesthesia you would take longer to recover and may have to stay in hospital longer; this is because the dose of anaesthetic is larger and is often different.

Please remember that you should not operate any machine, drive or sign important documents until the day after as your judgement may be impaired. This applies to both sedation and anaesthetic.

Please ask the fertility nurses if you have any questions about what will happen to you.

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Please use this space to make your own notes:

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