

Saint Mary's Hospital

Information for Patients

# Antagonist (Short) TEACH INFORMATION Bemfola / Menopur and Cetrotide, Gonasi and/or Buserelin

# **This presentation is for patients who are starting an IVF Antagonist (Short) cycle.**

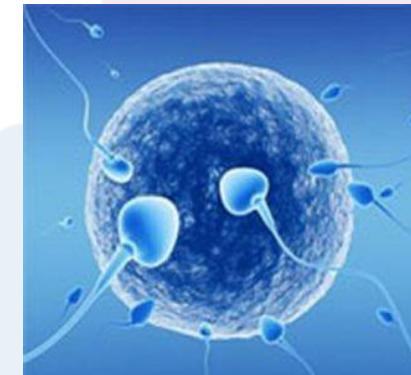
## **Purpose of this presentation**

- Go through the steps in the treatment process**
- Understand the medication which is required during treatment, including how to store it, how it works, how to administer, when to administer, and potential side effects**
- Explain the next steps you need to take to start treatment**



# Treatment Types

**IVF – Eggs are kept with prepared sperm**



**ICSI – Eggs are injected with prepared sperm**



# Stages of your IVF cycle

Pre op and teach  
(the understanding of the medication and when to give)

Ovarian Stimulation

Trigger

Egg and Sperm  
Collection

Fertilisation  
and Development

Embryo Transfer  
and Freezing

Luteal Phase  
Support

Pregnancy Test

Dealing with  
treatment outcome

# Antagonist regime

You will be expected to attend for a Covid-19 swab approximately 5-7 days before your expected period due date. A member of the nursing team will contact you to confirm the swab results and will then advise you accordingly of the next steps of treatment.

- Please telephone us on Day 1 of your period, on the treatment request line. 0161 276 6000 (option1). **PLEASE ENSURE ALL INTERCOURSE IS PROTECTED THROUGHOUT TREATMENT UNTIL YOUR EMBRYO HAS BEEN REPLACED.**
- A nurse will inform you of a start date for your Menopur / Bemfola injections for stimulation within 48 hours. These will start between days 1 and 3 of your period.
- A second injection called Cetrotide (the 'Antagonist') is started on day 5 and taken every morning while the stimulation injections continue, until the day of the "Trigger" injection.



# Monitoring during stimulation

All patients are required to self-report any symptoms of Covid-19 that develop during treatment.

- Vaginal ultrasound scans to monitor the size of the stimulated follicles and blood tests to measure the oestrogen levels.

- Monitoring starts from Day 10 of stimulation.

Bloods (if required) are taken between 7.45am and 8.30am Mon – Fri (8am to 9am Saturday and Sunday). Scans run between 8.30 and 12.30 daily.

Monitoring is repeated at intervals of 1 to 3 days, until follicles reach a stage where a “Trigger” injection can be given.

Most women need 10-14 days of injections before trigger. Response to drugs is highly individual and variable.

- We may occasionally advise a change of dose during this phase if the monitoring shows a need for this. If this is required, a nurse will call you between 1pm – 4pm to advise of the change of dose.



# 'Trigger' injection (Gonasi and/or Buserelin)

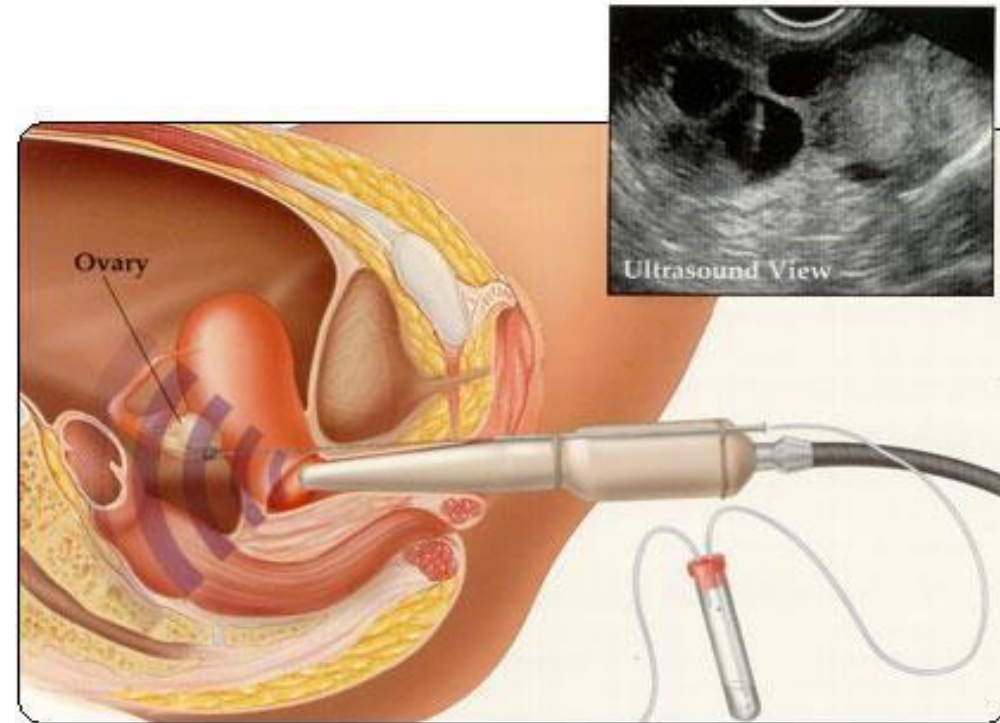
All patients will answer a self-assessment covid-19 symptoms questionnaire before agreement is given to trigger. A repeat Covid-19 swab will be performed on day of trigger or a day prior to this. Please be aware that treatment can be cancelled at any point if symptoms develop and/or if found to be positive for Covid-19.

- A single injection is needed to mature the eggs before they are collected. Occasionally, you will be advised to take double or dual trigger.
- There is a window of a few days in which the trigger can be given, without affecting the success of your treatment.
- Egg collection occurs approximately 36 hours after the "Trigger" injection, so **it is vital that you give yourself the injection at the exact time advised by the nurse. Complete in your patient information booklet on page 7.**



# Egg Collection

- Under sedation administered by an Anaesthetist.
- There will be a number of staff in the theatre, each assigned important tasks for your safety.
- Usually takes around 20-30 minutes
- Takes place in the morning around 36 hours post “Trigger”.
- You are monitored for a short while and usually able to go home in around 3 hours once you have eaten and passed urine.
- You must not drive for 24 hours after egg collection.
- You must have someone with you on discharge and at home overnight.





- Keep some paracetamol and codeine at home to keep you comfortable after the procedure. Please let us know if you have pain not controlled with these or feel unwell.
- Please start using Progesterone pessaries from the morning of the day after egg collection – vaginally or rectally, twice daily.

# Semen sample for treatment

- Sperm is required on the day of egg collection.
- Three rooms are provided for production of fresh samples.
- Healthy motile sperm are extracted for use in treatment.
- The best samples are obtained with 2 to 5 days of abstinence.
- We will inform you of the quality of your sample on the day.
- We may ask for a second sample or recommend changing treatment option if the sample is unexpectedly poor on the day.



# 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 may 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 for 24 hours, 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.

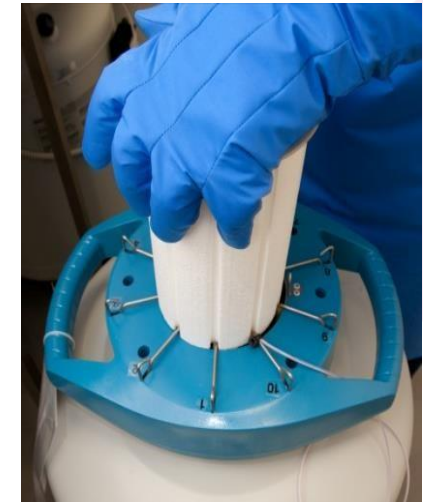


# Fertilization of eggs

- Standard IVF or ICSI.
- Our laboratory will decide the best method based on your sperm sample and history.
- ICSI can only be done on eggs that are mature.
- On average, around two thirds of eggs fertilize.

# Embryo freezing

- Good quality **spare** embryos can be frozen for future use.
- Embryo freezing and the length of time embryos for which can be frozen, will be discussed at your consultation. Please read HFEA forms MT and WT.
- Not all patients will have embryos suitable for freezing.
- Sometimes we may advise freezing of ALL embryos, avoiding fresh embryo transfer.

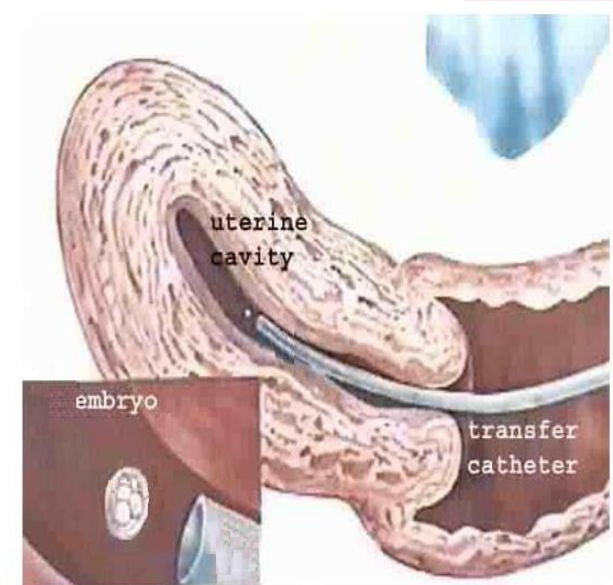


**Not all frozen embryos will survive thawing.**



# Embryo transfer using EmbryoGlue®

- Under ultrasound scan.
- Home directly after.
- EmbryoGlue has been shown in clinical trials to help implantation.
- Our laboratory will advise you on the number of embryos to be transferred (one or two).





# After embryo transfer

- Progesterone pessaries will have started the morning after egg collection and should be used every 12 hours.
- On the morning of embryo transfer – please insert the pessary rectally.
- We will advise you of the pregnancy test date.
- Please continue the pessaries up until the pregnancy test date. Please do not stop unless advised to do so. A nurse will call on the day of your pregnancy test to advise you of your next steps.

If your test is positive, pessaries are continued until ultrasound scan confirms an ongoing pregnancy. This scan will be completed 3 weeks after your positive test.

# Risks of IVF – 1

Agonist injection may cause hot flushes, mood swings, headaches and cysts.

Poor ovarian response:

- More likely in women of 40 and above and where the ovarian reserve is low (low AMH or high FSH).
- Sometimes this can be overcome by increasing stimulation, but there may be no alternative but to **cancel** the treatment.
- In such circumstances we will discuss the option of donor eggs, if you wish us to.

# Risks of IVF - 2

## Ovarian Hyperstimulation Syndrome (OHSS)

- The ovaries may respond excessively to stimulation.
- This causes swelling and discomfort in the tummy, nausea, vomiting and dehydration.
- The chance of this happening is less than 5% in general, but higher in women with polycystic ovaries.
- In some cases we are able to predict that OHSS is likely, and may advise cancellation of the cycle or freezing of all embryos.
- OHSS cannot always be predicted
- You need to be aware of the symptoms and inform us.
- If out of hours please contact EGU at Saint Mary's Hospital (0161 276 6204).

# Risks of IVF - 3

- Small risk of **infection** or **heavy bleeding** as a result of egg collection.
- Congenital **abnormalities** in the baby - more common with IVF/ICSI compared to babies conceived naturally.
- The majority of IVF/ICSI babies are normal and the abnormalities are probably not related to the procedure.
- **Prematurity** and **small for dates** - more likely in IVF/ICSI pregnancies than in those which are naturally conceived.
- **Ectopic Pregnancy**, especially with previous tubal damage – please report any significant pain as may need clinical assessment.
- **Miscarriage** more likely following IVF or ICSI.



# Risks of IVF – 4

## Multiple pregnancies (twins, triplets and higher)

- Significantly **higher risks to mothers and babies** than singleton pregnancies.
- Professional bodies have developed **strategies** to reduce the chance of a twin pregnancy, without compromising the overall chance of conception.
- We **assess your individual risk factors**, embryo number and quality to help decide how many embryos to transfer.
- This will be discussed with your Embryology Team prior to transfer.



# Risks of IVF - 5

## Loss of eggs or embryos during treatment

- Unfortunately there are losses at every stage of natural conception and pregnancy in humans, and IVF is no different.
- Not every follicle seen on scan will contain an egg.
- Not every egg will be mature.
- Not every mature egg will fertilise, even with ICSI.
- Not every embryo develops, some simply stop, and others do not survive the handling and laboratory procedures.
- Not every embryo implants and not every pregnancy continues.
- Not every embryo survives freezing and thawing.

# Counselling facilities

- Fertility treatment can be an emotionally difficult process.
- We offer the services of independent specialist fertility counsellors. They are accessible before, during or after your treatment cycle for implications and support counselling.
- Counselling is completely confidential.



# Research

- Our clinic is active in research into the best ways of treating infertility, and the health of babies conceived from fertility treatment.
- You will have the opportunity to participate in these research projects.
- Our research nurses will contact you after your consultations, to discuss which trials you may be suitable for, and to provide you with more information.



# Paperwork and consent forms

- IVF is very strictly regulated in the UK, by the HFEA ([hfea.gov.uk](http://hfea.gov.uk)).
- There are very strict requirements for consent forms to be completed by both partners before any licensed treatment. These should have been completed at your consultation.
- A copy of these forms should have been provided to you at your consultation.
- You can vary or withdraw your consent at any time up to the actual treatment, by letting us know in writing.



**You will either be prescribed Bemfola or Menopur with Cetrotide**

# 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:
- 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 Unit ( in the main hospital) on (0161) 276 6204.



# Bemfola – how to store.

- Store in a refrigerator. Do not freeze.
- Store in original packaging to protect from sunlight.
- Once opened, the solution may be stored for a maximum of 28 days at not more than 25°C.

# Bemfola – How to prepare and inject.

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.

For more information and to view a short video please visit the following link:

[https://www.youtube.com/watch?v=5\\_RtXIXmqCc](https://www.youtube.com/watch?v=5_RtXIXmqCc)

# 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 Unit (in the main hospital) on (0161) 276 6204.

# Menopur – how to store

- 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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confident



# Menopur – how to prepare

- 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.



# Menopur – how to inject.

- 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 the 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.
- 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.

For further information or administration, you can log on and watch a video on the following link:

<http://www.ferringforfertility.co.uk/fj/videos/600UI.m4v>

<http://www.ferringforfertility.co.uk/fj/videos/1200UI.m4v>



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# 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.

# Cetrotide – how to store?

- Store in the refrigerator between 2- 8 degrees Celsius.



# Cetrotide – possible side effects

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



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# Cetrotide – how to prepare and inject

- 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 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.

[http://www.fertility-information.com/media/Cetrotide\\_Injection\\_guide\\_website.pdf](http://www.fertility-information.com/media/Cetrotide_Injection_guide_website.pdf)



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# Gonasi – what does it do?

Gonasi is your final injection and is used to mature the egg within the follicle.

How to store: Keep in the box in a dry cool place.

Possible side effects:

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





# Gonasi – how to prepare and inject

- 1) Remove from packaging.
- 2) Remove the cap from vial of powder.
- 3) Take pre-filled syringe of water and remove the cap.
- 4) Attach the larger needle on the end of pre-filled syringe of water.
- 5) Pierce the 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 needle and dispose in sharps bin provided.
- 8) Attach on 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 all the Gonasi.
- 14) Dispose of needle and syringe in to sharps bin.



# Cyclogest pessery (Progesterone) – What does it do?

- Progesterone is a natural female hormone, produced in the body.
- It is used in IVF treatment to help support the endometrium (lining of the womb) and a possible early pregnancy. Store below 25 degrees centigrade in a dry place.

## 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.

# Cyclogest – 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 for 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.

Depending on the type of trigger you have had, you may require additional luteal support in the form of tablets. You will be notified of this during treatment.



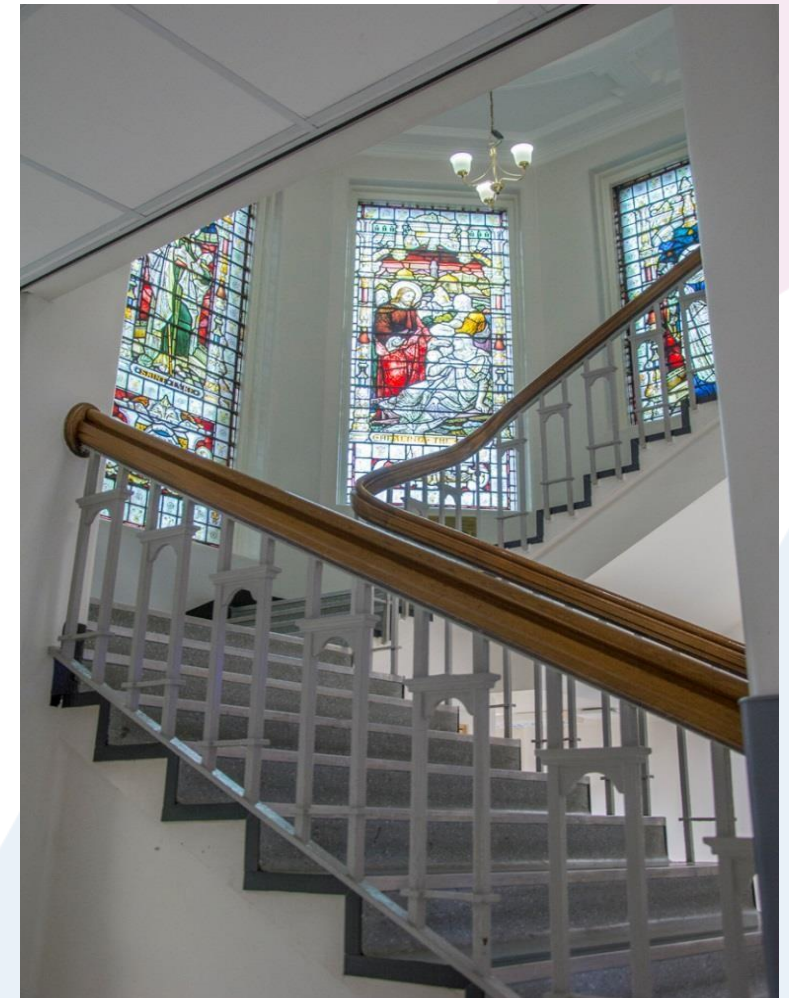
# What happens next...?

- Your medication should be delivered to you up to 2 weeks following your pre op assessment. Please ensure these are stored correctly.
- Phone the nurses on day one of your period (the morning you wake up to a full bleed). Please call 0161 276 6000 option 1 between 8am – 11am.
- Please ensure any intercourse you have is protected, with the use of condoms.
- The nurse will inform you of your date to start your Menopur / Bemfola and Cetrotide injections within 48 hours. Please complete these dates on page 6 in your patient information booklet.
- The nurse will also inform you of your next appointment which will be your day 10 scan. You will be advised if a blood test is also required. Please complete this on page 6 in your patient information booklet.



Thank you for your  
attention!

Any concerns throughout  
your treatment ***which  
cannot wait until your  
next appointment,***  
please call the nurses on  
0161 276 6000 #2



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