



Saint Mary's Hospital

**IVF PATIENT
Agonist (Long)
TEACH
INFORMATION
Buserelin, Gonal F,
Gonasi.**



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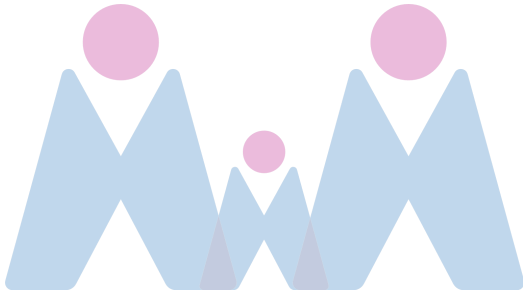
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**This presentation is for
patients who are starting an
IVF Agonist (Long) cycle.**

Purpose of this presentation

- Go through the steps in the treatment process
- Understand the medication which is required, 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

Down regulation.

Ovarian Stimulation

Trigger

Egg and Sperm
Collection

Fertilisation
and Development

Embryo Transfer
and Freezing

Luteal Phase
Support

Pregnancy Test

Dealing with
treatment outcome

Agonist (long) regime

Telephone treatment request line. 0161 276 6000 option 1 on day 1 of your period and do not have unprotected intercourse from that day until your embryo transfer.

Injections of Buserelin (the 'Agonist') from around day 21 (depending on the length of your cycle) until the day of the "Trigger" injection

This usually leads to a bleed within 2 to 3 weeks

After 2 to 3 weeks of down-regulation:

Blood test to confirm your ovaries have "switched off"

You may need an ultrasound scan and may need to continue Buserelin for up to 6 weeks if required – we will let you know what to do

FSH injections for stimulation start once we are happy that your ovaries have been 'switched off' – we will let you know exactly when to start.



Monitoring during stimulation

- Vaginal ultrasound scans to monitor the size of the stimulated follicles and blood tests to measure the oestrogen levels.
- Monitoring starts from Day 8 of stimulation.
Bloods are taken between 7.30am and 8.30am
Mon – fri (8am to 9am sat and sun)
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.





Monitoring during stimulation

- 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 on the telephone number supplied between 1pm – 4pm to advise the change of dose.



‘Trigger’ injection (Gonasi or Buserelin)

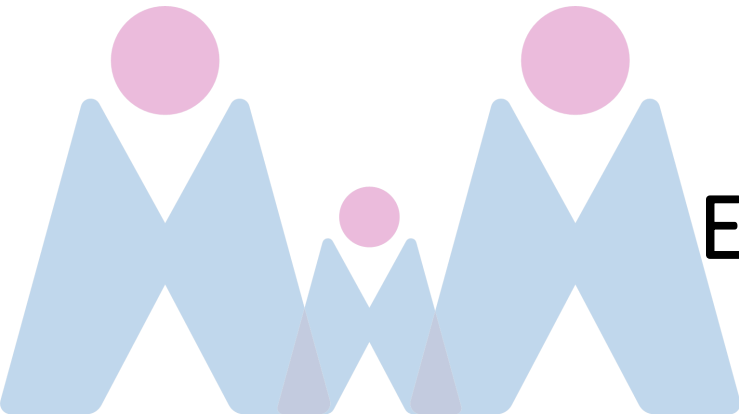
- A single injection which is needed to mature the eggs before they are collected
- There is a window of a few days in which the trigger can be given, without affecting the success of your treatment
- Egg collection occurs approximately 36 hours after the “Trigger” injection, so **it is vital that you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

Egg collection ('Oocyte Retrieval')

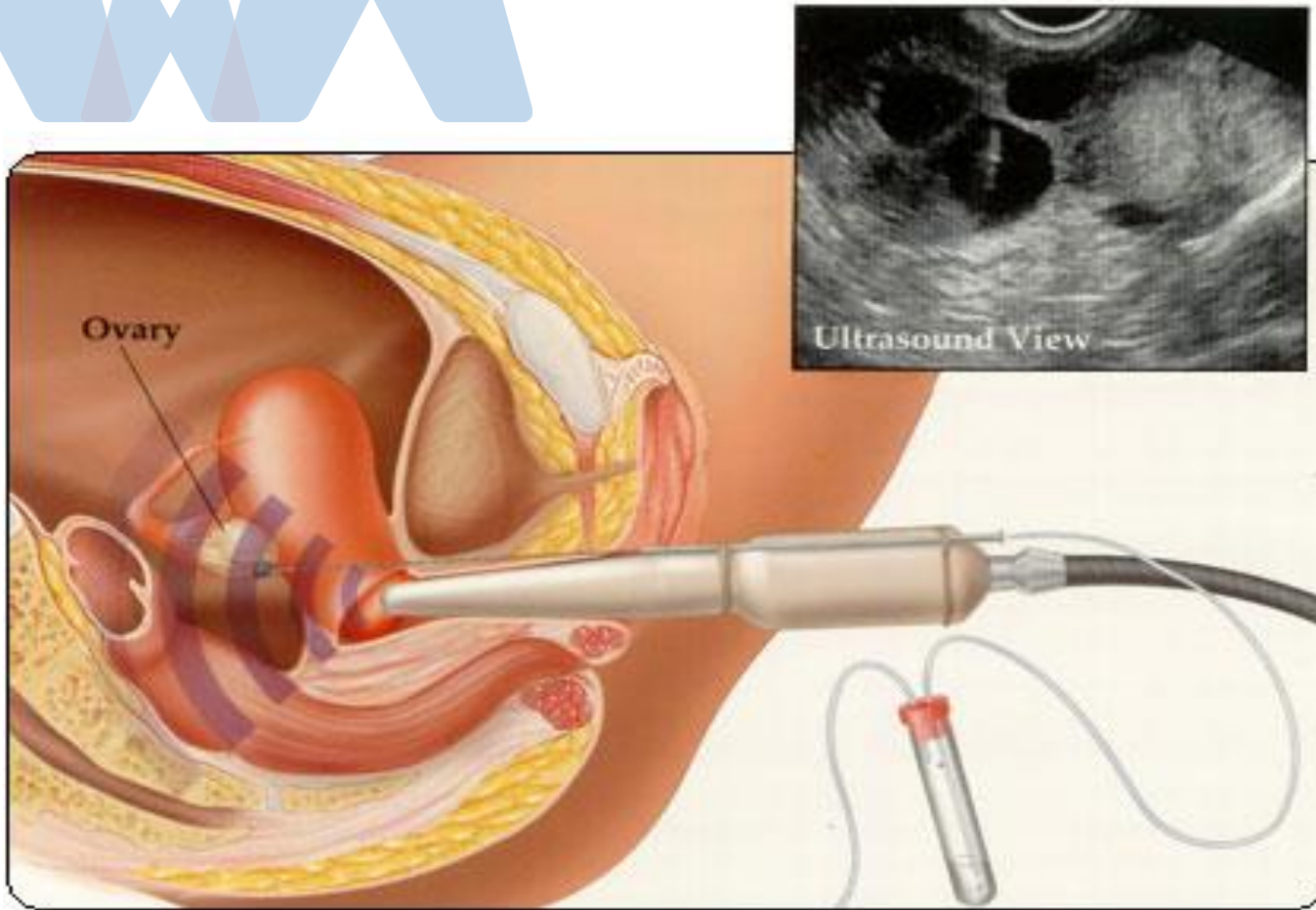
- Takes place in the morning around 36 hours post "Trigger"
- Under sedation administered by an Anesthetist
- There will be a number of staff in the theatre, each assigned important tasks, for your safety
- Usually takes around 20-30 minutes
- You are monitored for a short while and usually able to go home in around 3 hours, once you have eaten and passed urine.

Egg collection

- 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



Egg collection



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



Manchester University

NHS Foundation Trust

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



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Sedation in IVF: Information for Patients having Egg Recovery



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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.



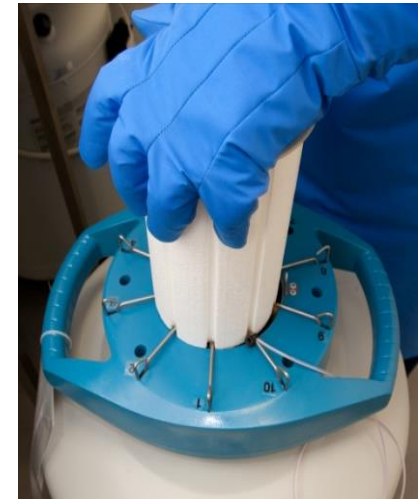
Fertilization of eggs

- 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

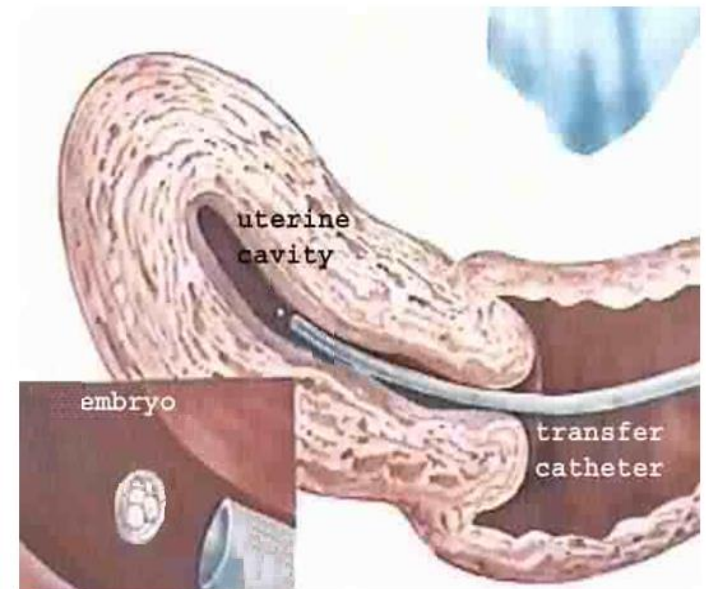
- Good quality **spare** embryos can be frozen for future use
- Embryo freezing and the length of time embryos for which can be frozen, will be discussed at your consultation. Please read HFEA forms MT and WT
- Not all patients will have embryos suitable for freezing
- Sometimes we may advise freezing 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 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 Ward 62 at Saint Mary's Hospital (0161 276 6105)
- We have an Early Pregnancy Unit at Saint Mary's Hospital (0161 701 0022)

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 naturally conceived ones.
- **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 what 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)
- There are very strict requirements for consent forms to be completed by both partners before any licensed treatment, this 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

Buserelin, What does it do?

- Buserelin is a drug that causes ovarian suppression. It works by acting on the pituitary gland in your brain to stop the production of natural hormones that control the release of eggs from your ovaries.
- Possible side effects:
 - Mood swings.
 - Hot flushes.
 - Vaginal dryness.
 - Headaches.
 - Nausea.
 - Local irritation at injection site.

Storage information

Buserelin needs to be stored in a refrigerator once opened.



Buserelin, How to use.

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- 1) Remove Buserelin vial from the box.
- 2) Flick the blue cap off the lid (this does not need to be replaced afterwards).
- 3) Take out a needle from the pack you were given.
- 4) Remove the orange cap from needle.
- 5) Pierce grey bung of Buserelin with the needle.
- 6) Tip the vial upside down.
- 7) Pull down the plunger to just past your required dose.
- 8) Remove the needle from the vial.
- 9) With the needle pointing upwards, flick the syringe so that any air bubbles move to the top.
- 10) Push out the air, ensuring the top of the black plunger lines up with your required dose.
- 11) Pinch an inch of fat below your belly button.
- 12) Inject the needle at a 45 degree angle
- 13) Push the plunger to give yourself the whole injection.
- 14) Remove the needle and dispose of it in the sharps bin that you have been provided with.
- 15) Put the remaining Buserelin in the refrigerator.
- <https://www.youtube.com/watch?v=xrZZPJGF7-w>

NB In your delivery, the syringes you receive will already have the needles attached, ready to draw up the drug unlike the above video link.

Gonal F, what does it do?

- Gonal F 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 Gynaecology ward (Ward 62) in the main hospital) on (0161) 276 6518 or (0161) 276 6410

Gonal F – 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.

Gonal F– How to prepare and inject.

- 1) Take out the Gonal F pen and one of the needles inside your box.
- 2) Take the white lid off the Gonal F pen.
- 3) Peel the paper cap off the needle.
- 4) Twist the needle on the top of the Gonal F pen.
- 5) Remove white cap off the needle.
- 6) Look in the black window on the end of the pen (there should be a '0').
- 7) Twist the red end of the pen till you can see your required dose in the black box.
- 8) Remove the green lid on the needle.
- 9) Pinch an inch of fat below your belly button.
- 10) Inject Gonal F at a 90 degree angle.
- 11) Push the red plunger all the way down and hold for 10 seconds.
- 12) Remove pen and look in the black window (it should read '0' if you have injected the full dose).
- 13) Replace the white cap on the needle and unscrew it off the pen.
- 14) Dispose of the needle into the sharps bin provided.
- 15) Replace the lid of the Gonal F pen and store as advised below.
- For further information please see
- <http://www.fertility-information.com/treatments/gonal-f>



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

How to store

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.



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 day one of your period (the morning you wake up to a full bleed.) Please call 0161 276 6000 #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 buserelin injections within the next few days, we aim to start these injections around day 21 of your cycle depending on your cycle length. Please complete these dates on page 6 of your patient information booklet.
- These injections are to be taken daily, between 7am and 10am, **DO NOT STOP TAKING UNTIL TRIGGER.**
- The nurse will also give your next appointment which will be your down regulation blood test blood test, which is 2 weeks after the start of your injections, please complete this on page 6 in your patient information booklet.





Thank you for your
attention!

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

