

# Intrauterine Insemination (IUI)

Reception: +353 1 556 7900

# **Contents**

#### 3 Before Treatment

- 3 IUI Consent & Consultation with Merrion Fertility Clinic
- 3 Infection Screening
- 3 Treatment Scheduling Phone Call
- 4 Look After Yourself
- 4 Support and Counselling
- 5 Optimising Diet and Lifestyle
- 5 Prescription and Pharmacy Guidance
- 6 Rockfield Pharmacy Information

### 7 <u>During Treatment</u>

- 7 Natural IUI Cycle
- 8 IUI with Ovarian stimulation
- 9 LH Urine Kits
- 10 Ovarian stimulation
- 10 Stimuation Timimg
- 10 Stimulation Medications
- 11 Preventing natural ovulation
- 11 Antagonist
- 11 Trigger injection
- 12 Medication Side Effects

### 12 Sperm Collection

- 14 Preparation for IUI
- 14 IUI Procedure

#### 15 After IUI Procedure

- 15 Progesterone Luteal support
- 16 Progesterone Support Instructions
- 16 After Treatment
- 17 Cancelled/Failed Cycle
- 18 Early Pregnancy Miscarriage



# **Before Treatment**

#### **Tests Required**

The following tests are required to be carried out prior to IUI treatment by the partner undergoing the egg collection.

- TSH (Thyroid Function Test)
- Chlamydia
- Body Mass Index (BMI)
- Blood Pressure

These are the standard tests required. Based on your circumstances, your doctor may request further investigations.

Our administration and nursing teams will contact you to schedule these tests.

### Infection Screening

- You will also be asked to compete an Infection Risk Declaration Form. This will be sent to you via email. This must be completed by each partner (if applicable).
- For IUI cycles that uses partner sperm, HIV and Hepatitis Screening is required for the male partner. This is done at Merrion Fertility Clinic.
- These are blood tests and must be performed within 3-months of IUI and sperm collection procedures. Our nursing team will contact you to schedule this test.
- This is not required for donor sperm cycles.



# **Before Treatment**

### **Treatment Scheduling Phone Call**

- Our nurses will contact you to discuss provisional dates for your treatment cycle. Your start date will be based on your menstrual cycle, as guided by our nursing team.
- The nurse will tell you when you need to next contact the clinic to confirm your start dates this will usually be Day 1 of your menstrual cycle.

#### **IUI Treatment Consent**

- Before beginning treatment, you must agree and sign a consent form.
- There are several options you must consider and agree with your partner (if applicable)
- You will be sent the consent in advance of signing and will have ample time to consider the options.
- You will have a pre-treatment online consultation to discuss and complete your treatment consent form.
- Where applicable, we ask that both partners, attend the online consultation together.





#### **Look After Yourself**

Merrion Fertility Clinic are here to support you through your IUI cycle and it is important to understand what the treatment entails.

As well as being physically demanding, treatment can also be mentally and emotionally demanding. It is important to take care of your physical and mental health during this time. The desire to have a child is natural and, when month after month conception does not occur, feelings of anger, shame, guilt, powerlessness, and despair may develop. Everyone's emotions are different and there is no right or wrong way to feel.

Relationships with your family members and friends may become strained leading to a breakdown in communication and feelings of isolation. There are many difficult decisions that must be made, and unsuccessful treatment cycles may be disappointing.

#### Try different coping mechanisms.

- These can look different for everyone. Do something that makes you feel good. Whether it is reading a book, journaling, talking to a friend or going for a walk.
- Get support.
  - o Consider getting professional support through counselling.
  - Join a support group to talk to others who are going through fertility treatment.

# **Support and Counselling**

Merrion Fertility Clinic does provide a counselling service as well as a support group. Additional support may be helpful throughout your treatment. The support group is free for patients, however the individual counselling sessions have an additional charge.

#### For further information please visit

- Merrion Fertility Clinic Counselling Services
- Merrion Fertility Support Group

When using donor sperm, one session of implications counselling is mandatory.

This is to allow patients to explore the emotional, social, ethical, and legal implications of using donor sperm to conceive a child. The primary goal of implications counselling is to ensure that individual or couple fully understand the potential consequences and challenges associated with using donor gametes and to help them make well-informed decisions.



# **Optimising Diet and Lifestyle**

While undergoing treatment it is important to prepare your body for pregnancy.

- Continue to take folic acid, vitamin D and any other supplement recommended by your doctor.
- Regular exercise is recommended and avoid drinking excessive alcohol intake and smoking.
- For further information and guidance see Merrion Fertility Clinic Nutritional Advice

If you are concerned about your diet, Merrion Fertility Clinic works with a dietician. - Orla Walsh Nutrition. Please inform our administration team if you wish to be referred.

# **Prescription and Pharmacy Guidance**

Your treatment plan will involve taking prescribed medications under the guidance of our clinical team. The details related to fertility medications can be intricate and require the expertise of experienced pharmacists. To ensure comprehensive support for our patients, Merrion Fertility Clinic has partnered with Rockfield Pharmacy located in Dublin 16.

Rockfield Pharmacy specializes in fertility medications and has a dedicated team to assist individuals undergoing fertility treatment. This partnership aims to simplify the process for patients while also having experts advise in the distribution of these medications.

Once your prescription is ready, it will be securely transmitted to Rockfield Pharmacy through the secure Heathmail network. Upon receipt, a representative from Rockfield will contact you by phone to offer the following options:

- 1. **Home Delivery/Courier Service:** Choose to have your medications delivered to your residence. This service is provided free of charge and is available to residents anywhere in Ireland.
- 2.**In-Person Pickup:** Opt to personally collect your medications from the Rockfield Pharmacy location.
- 3. **Alternative Pharmacy:** Select the option to have your prescription sent via Healthmail to a pharmacy of your choosing within the Republic of Ireland.



If you decide on option one, medication delivery, please note that this arrangement is between you and the pharmacy. It's important to be aware that Merrion Fertility Clinic bears no responsibility for any delivery-related issues. We also want to emphasize the stringent data protection and confidentiality measures in place with Rockfield Pharmacy. Your information's security is well preserved through appropriate safeguards. It's worth noting that Rockfield Pharmacy will only have access to information present on the prescription and your contact number. Access to your medical records will not be granted.

Our priority is to facilitate a smooth and secure medication acquisition process, ensuring your comfort and well-being throughout your fertility treatment journey. If you have any questions or require further clarification, please feel free to contact our team.

# **Rockfield Pharmacy Information**

**Address:** Rockfield Pharmacy, Balally Luas Stop, Dundrum, Dublin 16

**Contact Number:** (01) 296 7340

#### **Opening Hours:**

Monday 9 a.m.-7 p.m.
Tuesday 9 a.m.-7 p.m.
Wednesday 9 a.m.-7 p.m.
Thursday 9 a.m.-7 p.m.
Friday 9 a.m.-7 p.m.
Saturday 12p.m.-7 p.m.
Sunday Closed

**Important:** Please refrain from commencing any prescribed medication until instructed by the nursing team. As your medication is tailored to your specific circumstances, we strongly advise against following guidance or instructions from alternative sources. If you have any uncertainties regarding your medications, we encourage you to seek clarification from the nursing team



# **During Treatment**

When considering IUI treatment, your doctor will select the best approach for you and your circumstances.

There are two protocols for IUI, Natural IUI and IUI with Ovarian Stimulation.

### **Natural IUI Cycle**

- For a natural cycle the goal is to time the IUI procedure to coincide with your natural ovulation.
- This involves monitoring your cycle using ultrasound scans and LH urine sticks. An ovulation trigger injection may also be used.

#### **Overview of Natural IUI Cycle**

#### **Ovulation Monitoring**

- This involves monitoring your cycle using ultrasound scans and LH urine kit.
- · An ovulation trigger injection may also be used.



#### **Ovulation**

- Ovulation occurs approx 24 hours after a positive LH.
- If using a trigger injection, ovulation occurs 36 hours after application.



#### **IUI Procedure**

- At this stage a semen sample is collected and it is prepared in the laboratory to be optimized for IUI. (Not applicable for donor cycles.)
- The IUI procedure then takes place.



#### **Support Medication**

 After the IUI luteal phase support is recommeded, this involves taking progesterone supplements to support the uterine lining and potential pregnancy.



#### **IUI** with Ovarian stimulation

This protocol follows the same principles as a natural cycle, however, in this cycle medication is taken to stimulate the ovaries. This approach is taken to improve chances of conception as more eggs are produced. This is also an advantageous approach for a patient with irregular cycles.

#### Overview of IUI with Ovarian stimulation

#### **Stimulation**

- Stimulation involves the injection of medications to promote development of follicles in the ovary.
- Injections are taken daily from around Day 2 of the cycle until ovulation is imminent.
- · Stimultion is monitored by ultrasound scanning



#### **Preventing Premature Ovulation**

• In order to ensure that ovulation occurs only at the optimal time, antaogonist medication is taken to block ovulation from occuring prematurely.



#### **Ovulation**

 A trigger injection is taken 36 hours before the procedure is scheduled, this will result in ovulation.



#### **IUI Procedure**

- At this stage a semen sample is collected and it is prepared in the laboratory to be optimized for IUI. Not applicable for donor cycles.
- The IUI procedure then takes place.



#### **Support Medication**

• After the IUI luteal phase support is recommeded, this involves taking progesterone supplements to support the uterine lining and potential pregnancy.



#### **LH Urine Kits**

Luteinizing Hormone (LH) urine kits are tools used to detect when ovulation is occurring. These kits help predict when ovulation is likely to occur. During a natural cycle, this assists with knowing when to schedule the IUI procedure to coincide with ovulation.

#### How to Use

<u>Test Strip or Midstream:</u> LH urine kits come in two primary formats. You can either dip a test strip into a cup of your urine or use a midstream kit, which is held directly in your urine stream.

<u>Timing:</u> Most LH urine kits recommend testing once a day, typically in the morning.

<u>Interpretation:</u> After using the kit, you'll observe the result. A positive result indicates that you are currently experiencing an LH surge, which suggests that ovulation is likely to occur within the next 24-36 hours. A negative result means that you have not yet detected the LH surge, and you should continue testing.





#### **Ovarian stimulation**

#### For IUI with Ovarian Stimulation Only

- Stimulation involves the injection of medications for 8-14 days.
- The dose is decided for each patient individually.
- Eggs cannot be seen but follicles (a follicle should have an egg) can be seen clearly on ultrasound scan.
- If you are having sexual intercourse, it is essential you use protection from the outset of your stimulation.

# **Stimulation Timing**

• The nurse will give you instructions for starting your stimulation medication.

#### **Stimulation Medications:**

- As every patient's stimulation is different please see the instructional videos that is relevant to your treatment.
- For your individual dosage requirements and timings for these drugs, please refer to the information provided to you by the nurses.
- Please note the correct storage temperature of each medication, as advised by your pharmacist.

Gonal-F <u>Instruction Video</u>
Menopur <u>Instruction Video</u>
Luveris. <u>Instruction Video</u>

Rekovelle <u>Instruction Video</u>
Pergoveris <u>Instruction Video</u>



### **Preventing natural ovulation**

#### For IUI with Ovarian Stimulation Only

- For the egg to develop and be in place for the IUI procedure, it needs to remain in its follicle. Therefore, the ovaries must be prevented from ovulating.
- Stimulation causes oestrogen levels to rise, and this could induce ovulation. Therefore, a second type of hormone must be introduced to control this.
- For IUI, 'Antagonist' protocol is used.

#### **Antagonist**

- Medication is added several days after starting hormonal stimulation and continued until just before trigger
- The first daily dose of your Antagonist medication (Cetrotide) will be advised by the nurse when you attend for your scan appointment. This is in injection form.
- If you are having sexual intercourse, it is essential you use protection from the outset of your stimulation.

Please see the instructional videos below for the agonist injection applicable to you. Please note the correct storage temperature of each medication, as advised by your pharmacist.

#### **Cetrotide** Instruction Video

#### **Trigger injection**

- When some of the follicles have reached the required size, the woman is ready for the trigger injection.
- A 'trigger' injection starts the process of oocyte maturation. This is the egg's final stage of development.
- Timing of the injection is critical.
- Typically, the injection is given 36 hours before the procedure is scheduled.
- The specific information for this will be personalised for you, and will be provided by the nurses in advance of undergoing your treatment[RB1].
- In some circumstances, both Ovitrelle and Buserelin injections will be recommended.

Please note the correct storage temperature of each medication, as advised by your pharmacist. Please see the instructional videos below for the trigger injection specific to you.

Ovitrelle <u>Instruction Video</u>
Buserelin <u>Instruction Video</u>



#### **Medication Side Effects**

It is common to experience minor side effects while on treatment. These may include:

- mild bruising at the site of injections
- headaches
- mood changes
- menopausal symptoms
- hot flushes (for those using downregulation) mild abdominal bloating and nausea

These side-effects are usually short-lived and are generally no cause for concern. If they are bothering you, don't hesitate to discuss any of these symptoms with your team as they may be able to adjust your medication or offer other help.



# **Sperm Collection**

(Not required for donor cycles)

#### Overview

- On the same day as your partner is undergoing the IUI procedure, you will be required to produce a semen sample.
- It will be discussed with the lab team at Merrion Fertility Clinic whether the sample can be
  produced at your home or in the clinic. Typically, if it is possible for you to get to Merrion
  Fertility Clinic within an hour of sample production, it is possible to do this at home.
- If you have concerns about being able to produce a sample on the day of IUI, it is very important to let the nursing team know in advance.
- This can be accommodated by having you producing a sample in advance of the I procedure
  and freezing the sperm until the eggs are collected.
- If you do not have frozen sperm, and are unable to produce sperm on the day, medications such as Viagra or Cialis can be prescribed for you.

### 2-3 Day Rule

- In order to optimize the quality of the sperm, it is recommended that you abstain from ejaculating at least 2 days prior to producing the sample for treatment.
- However, prolonged abstinence can also negatively affect sperm quality. You should not abstain for longer than 3 days.

#### **Sperm Collection Instructions**

- · Wash the genital area thoroughly on the morning of sample production
- Wash hands immediately before and after sample production.
- Always use the sample container provided by Merrion Fertility Clinic, other containers may be toxic to sperm.
- Do not use any lubricants or other products.
- Do not collect the sample using a condom.
- The sample should be provided by masturbation only. Do not produce the sample by withdrawal during intercourse.

#### If producing sample at home

It is preferable for the sample to be collected at the clinic. However, for various reasons a patient may opt to produce the sample off site.

The following guidelines are crucial when transporting a sample to the clinic

- For the quality of the sperm to be maintained, it is important that the sample is transported at body temperature. You can do this by keeping it close to your body e.g. inside your jacket. Do not transport the sample in a bag.
- The sample must be received within one hour of production. Delays can cause the sperm motility to decrease, therefore please provide the sample to our lab team as soon as possible.



# **Preparation for IUI**

- Sedation and fasting is not typically required for IUI procedure, therefore, please continue to eat and drink as you normally would.
- Please arrive on time for your appointment and allocate at least one hour for the procedure.
- The procedure does not require a recovery period, and afterwards you can go about your day as normal.

#### **Clean Room Guidelines**

The procedure takes place in one of our procedure rooms. This is a cleanroom environment, and therefore clean room guidelines must be followed. This means that it is important not to wear make up, nail polish, perfume, heavily scented deodorant, or jewellery.

#### Have a Full Bladder

As a full bladder can facilitate the ease of an IUI we recommend that the woman does not empty her bladder any later than two hours prior to the time of the IUI.

# **IUI Procedure**

- 1. You will be asked to sit in a chair with leg rests.
- 2.A nurse will gently insert a speculum to open the cervix
- 3. A thin, flexible catheter is attached to the prepared sperm sample. The doctor or nurse gently inserts the catheter through the cervix and into the uterus. This part of the procedure is typically painless, but you may experience mild cramping.
- 4. The selected sperm are then pushed through the catheter and deposited directly into the uterus. This is done to bring the sperm closer to the fallopian tubes, where fertilization usually occurs.
- 5. Once the sperm has been introduced into the uterus, the catheter is carefully removed.
- 6. Following this, you will rest in the procedure room for a short while, before being allowed to leave the clinic.



# After IUI Procedure

- Following IUI, the nurse will provide guidance of what to do up to the day of your pregnancy test.
- You will be advised to follow a pregnancy-friendly diet and continue to avoid smoking and drinking alcohol.
- It is very important to begin your progesterone support at this time.
- The two weeks between IUI and pregnancy test are often described as the most stressful time. Please continue to take care of yourself and avoid any additional stress in your life.

### **Progesterone Luteal support**

- Progesterone plays an important role in preparing the endometrium (lining of the womb/uterus) to accept and support an implanting embryo.
- This progesterone support is commonly taken as a vaginal tablet or gel, injection, or oral medication. You will be prescribed the most appropriate support for you.
- Luteal support is started either the day after IUI or the following day and is continued up at least until the time of your pregnancy test.
- Our nursing team will provide guidance on what will work best for you.

#### **Progesterone Support Instructions**

- If the progesterone support prescribed for you is an injection form. Please refer to the video below.
- For your individual dosage requirements and timings for these drugs, please refer to the information provided to you by the nurses.
- Please note the correct storage temperature of each medication, as advised by your pharmacist.

**Prolutex - Instruction Video** 

**Ovitrelle - Instruction Video** 



# **After Treatment**

#### **Pregnancy testing**

- Pregnancy testing is done by HCG blood test.
- You will be provided with a date to attend for this.
- Unfortunately, a bleed may occur prior to your testing day. Progesterone support will not always stop/prevent a bleed. If this happens, please contact our nursing team for guidance and support.

### Your pregnancy test is negative

- When the test is negative, there can be a deep sense of loss. Emotional support is invaluable at this stage.
- If your IUI cycle is unsuccessful your case will be discussed at the review meeting, which is a multidisciplinary meeting attended by senior members of the Clinical, Nursing and Embryology team.
- You will be offered a review appointment with the doctor as part of your treatment cycle.
- A member of our team will contact you and advise you of the future plan and answer any questions you may have.

#### **Positive Outcome**

- An early pregnancy scan will be arranged for approximately 3 weeks later (around 7-8 weeks of pregnancy).
- You can cease your progesterone support unless you have been specifically advised otherwise.
- Remember to continue your pregnancy-friendly lifestyle and continue to take folic acid and vitamin D.
- We will ask you to inform us which maternity hospital and obstetrician you plan to attend for your pregnancy care. A letter will be sent from your doctor at Merrion Fertility Clinic to your GP and to your obstetrician in the hospital you choose.

#### What to Expect During Your Fetal Heart Scan:

- The nurse will discuss the findings of the scan with you and provide guidance on medication, pregnancy-friendly diet, antenatal care, and more.
- You can request a copy of the scan report and images if you wish.
- Sometimes, staff may seek a second opinion before confirming the findings.

# Cancelled/failed cycle

Even though treatments and approaches are carefully tailored for individual situations and patients, unfortunately sometimes the IUI treatment cycle does not proceed as planned. Some of the more common reasons for cycle cancellation or failure are outlined in this section.

When a treatment cycle is cancelled, your case will be discussed at the review meeting which is a multi-disciplinary meeting attended by senior members of the Clinical, Nursing and Embryology team.

A revised protocol for your next treatment cycle will be decided on and, afterwards, you will be called by a member of the Nursing team to discuss dates for your next cycle.

### **Ovarian cysts**

- Approximately 5% of patients will develop simple ovarian cysts either naturally or as a result of medication. These cysts can produce oestrogen, and may interfere with the progress of your IUI cycle.
- Cysts generally resolve either spontaneously, with the help of an oral contraceptive pill or by staying on downregulation medication for an additional week. If the cyst fails to resolve, a minor procedure may be required to drain it.
- Some cycles may need to be cancelled and rescheduled if significant cysts are found

### Ovarian hyperstimulation syndrome (OHSS)

- Some patients, particularly those with polycystic ovaries, may over-respond to the chosen dose of stimulation and are at risk of a serious condition called OHSS or ovarian hyperstimulation syndrome.
- In OHSS, the ovaries swell and very high levels of oestrogen and other chemicals are released, affecting the integrity of the woman's small blood vessels.

In severe cases, the following may occur:

- affected women feel unwell and nauseous
- · ovarian swelling and fluid leaking from the blood vessels causes abdominal discomfort and pain
- The kidneys may fail to work efficiently
- · Fluid can collect around the lungs and around the heart
- The condition subsides as the ovaries return to normal size, but it will be made worse if pregnancy occurs.
- Where there is concern that OHSS may develop, it is best to give agonist trigger instead the usual hCG trigger and not to proceed with IUI



# **Early Pregnancy Miscarriage**

The stages of early pregnancy can be a stressful time for expecting parents and Merrion Fertility Clinic endeavors to support our patients throughout this time. Unfortunately, early pregnancy miscarriage is a common occurrence affecting 1 in 5 pregnancies. Diagnosing a miscarriage in the very early stages of pregnancy is difficult. An ultrasound scan can sometimes show features that indicate a possible miscarriage, but at the very early stages it cannot confirm this with certainty. To ensure accuracy, a follow-up scan is required 7-10 days (about 1 and a half weeks) after the first scan. This scan will be completed in the Early Pregnancy Assessment Unit (EPAU) at The National Maternity Hospital. We appreciate that the uncertainty and waiting period required for this additional scan can cause significant stress and anxiety. However, this approach aims to provide the most accurate diagnosis and the best possible care.

#### **Suspected Miscarriage:**

- As described earlier, due to the nature of early pregnancy, a second scan appointment will be scheduled at least 7 days after the initial scan in the Early Pregnancy Assessment Unit (EPAU) in The National Maternity Hospital. While this can be very distressing, please understand that it's a crucial step that needs to be taken to ensure the accuracy of the findings.
- A copy of your fetal heart scan will be sent to the hospital for your follow-up scan appointment.
- If you experience any new or worsening symptoms while you are waiting for this appointment, please contact Merrion Fertility Clinic during opening hours or present to the emergency department at NMH.
- While they strive to provide prompt care, there may be a wait to see a midwife or doctor, depending
  on the current activity in the Emergency Department. We understand that this can be distressing,
  particularly during such a difficult time. Please rest assured that our team will make every effort to
  see you as soon as possible and provide the care and support you need.

Due to early gestation, sometimes it may not be possible to confirm whether your pregnancy is going to continue or not. This could be due to one of the following:

- It is possible that we have not seen a fetus and fetal heartbeat because you are too early in the pregnancy. A repeat scan in 7 to 10 days should clarify whether the pregnancy is healthy or not.
- It is also possible that the pregnancy is not growing as it should, and the bleeding may be a sign of an impending miscarriage. Similarly, a repeat scan will clarify the situation.
- There is also the possibility that the pregnancy is outside the womb. This is unlikely, but we cannot exclude it at this stage as it is too early to diagnose. If we suspect that this may be the case, we may suggest doing a blood test called βeta HCG (human chorionic gonadatrophin). It is a hormone produced by the placental tissue and its levels roughly double every two days in a normally growing early pregnancy. We may also repeat the scan in a few days.



### **Suspected Miscarriage (continued):**

- If a miscarriage is suspected on the day of your fetal heart scan, the clinic will organise another scan in the EPAU at the hospital. Our staff will accompany you for this appointment to ensure a seamless transition of care between our staff and the hospital team. We want to assure you that you'll be well taken care of for this appointment as they specialise in these types of scans and have a dedicated team there to assist you. Please be advised that the hospital will then take over the management of your care. This might include multiple scans and/or a series of blood tests.
- The nurses will let the clinic doctor know about your follow-up ultrasound appointment at the hospital.
- The clinic will follow up with the hospital after your second scan appointment to ensure continuity of care.
- Please continue your medications until a final diagnosis is made by the hospital.
- Once the scan findings are in line with the gestational age, a letter will be sent to your referring doctor and chosen Obstetrician for antenatal care.
- Depending on individual circumstances, this process may vary slightly, but rest assured, we are committed to providing you with the best possible care.