The Hull IVF Unit

*IVF Information Booklet*

The Hull IVF Unit  
*(within)* The Women and Children’s Hospital  
Hull Royal Infirmary  
Anlaby Road  
Hull  
HU3 2JZ

Tel: 01482 382648  
Fax: 01482 382672

Emergency out of hours contact number: 01482 328541
CONTENTS

Welcome to the Hull IVF Unit
- Meet the team
- Our aim
- Statement of purpose
- Confidentiality
- Regulation
- Patients with special needs

How to contact us
- General enquires
- Urgent enquires

What treatments are available
- What is IVF?

Getting started
- The referral process
- Selection criteria
- Funding of treatments by Health Authorities
- Private charges

Screening Investigations

Preparation for IVF

General advice and consent
- Legal Parenthood
- Giving consent to treatment

Counselling & Support
- Support Group

Stages of IVF / ICSI Process - general guide
- Down regulation what is it?
- Stimulation of egg production
- Monitoring ovarian stimulation
- Injections
- Drug information

Down regulated IVF / ICSI cycles
- How do I arrange a cycle?
- First scan
- Further scan appointments
- Patients ready for oocyte retrieval
- Diagram showing down regulated IVF / ICSI cycles

Cetrotide IVF / ICSI cycle
- How do I arrange a cycle?
- First scan
- Further scan appointments
- Patients ready for oocyte retrieval
- Diagram showing Cetrotide IVF / ICSI cycles
Ovum Retrieval Day for all IVF/ICSI cycles
- Arrival
- Producing a semen sample
- The procedure
- After the procedure

What happens now to my eggs and sperm?
- IVF or ICSI
- Fertilisation check
- Embryo grading

The Embryo Transfer day for IVF/ICSI cycles
- Embryo or blastocyst transfer
- How many embryos will be transferred?
- Post transfer of embryos or a blastocyst
- Freezing of spare embryos
- Post treatment advice

Detection of pregnancy

Frozen Embryo Transfer
- How do I arrange a cycle?
- First scan appointment
- Further scan appointments
- Preparation for embryo transfer
- Embryo transfer
- Diagram showing Frozen Embryo Transfer cycle

Reasons why your cycle may be abandoned or delayed

Risks and complications of IVF treatment
- Drug reactions
- Infection
- Haemorrhage
- Trauma
- Ovarian Hyper Stimulation Syndrome
- Egg collection
- Pregnancy
- Antenatal care
- Multiple pregnancies

Success rates for IVF/ICSI

Get in touch

Copy of IVF Notes

Complaints Procedure
Welcome to the Hull IVF Unit

The Hull IVF Unit is East Yorkshire’s only specialist fertility clinic. The Unit was established in 1986 and has a long history of success. Our success rates are amongst the highest in the country and over the years we have helped many couples to become parents.

This booklet will answer many of your questions, and aims to give you some insight into the procedures involved in IVF treatment.

Please read it carefully and ask the staff in the IVF Unit to explain anything that is unclear to you.

Our dedicated team will support you each step of the way.

Meet the team

Our friendly and very experienced team consists of specialist doctors, nurses, embryologists and administration staff.

Medical Director, Person responsible to the HFEA and the Care Quality Commission:
Mr Steve D Maguiness MD FRCOG Consultant Obstetrician & Gynaecologist

Scientific Director:
Dr John Robinson BSc PhD SRCS

Operations Director:
Mr Philip Robinson

Consultant:
Mr Piotr Lesny, MD MRCOG

Consultant Nurse:
Denise Holland RGN

Quality Manager/
Consultant Embryologist:
Christine Leary BSc, FRCPath

Nursing Staff: There is a team of five nurses

Laboratory Staff: There is a team of six embryologists

Administrative Staff: There is a team of six office staff

Ultrasound Staff: The Unit is supported by six Ultrasonographers

There is a member of Domestic Staff
Our Aim

We aim to deliver safe, skilled care in a professional, caring manner, involving our patients in all aspects of treatment and decision making.

Statement of purpose

The Hull IVF Unit is East Yorkshire’s only specialist fertility Unit, and it has provided a clinical service to the people of this region, and beyond, since 1986. It is our intention to continue this tradition, maintaining our position as one of the most successful and effective treatment centres within the UK.

We aim to provide financially viable private facilities and services for the investigation and treatment of couples having difficulty conceiving.

This provision will be of the standard and quality, which is perceived by its patients to match their expectations for excellence of service, which is seen to offer good value for money and which meets the full criteria laid down by its registered bodies, the Human Fertilisation and Embryology Authority and the Care Quality Commission.

Confidentiality

All of the information about yourselves which is recorded in the Hull IVF Unit is completely confidential and will not be released to any third party without your expressed written consent. Even letters written to your General Practitioner are sent to you so that you can forward them to your GP yourself.

Notes of patients held by the Unit are used for audit and research by members of staff named on the HFEA licence. Patients who have concerns about the use of their personal information for internal audit or research should make their concerns known, and these will be respected.

Regulation

Fertility treatment is closely regulated by Law. The HFEA Act governs all activities including human eggs, sperm and embryos. The Unit is regulated and inspected by the HFEA, CPA, ISO 9001 and 27001, quality management information security.

The Unit is inspected to European and international standards to enforce EU laws to ensure quality and safety.

It is the policy of the company to maintain a quality system designed to meet the requirements of EN ISO 9001:2008. The policy is implemented and maintained throughout the Unit.

The quality of service offered has a direct influence on the Unit’s ability to meet patients’ expectations. The Unit endeavours to work with patients to define expectations and meet or exceed them through offering services which are effective, efficient and safe.
Organisational excellence is maintained at the Unit by implementing quality management principles. Quality control, assurance and improvement are integrated in our quality management system (QMS). The company’s Quality Manual defines our quality objectives and key procedures. The Quality Policy is displayed on the website.

Patients with special needs

Please let us know as soon as possible if you have any special care needs. We endeavour to provide the best care possible in an environment suited to your needs. We may need to make adjustments to layout prior to your appointments. It may be that we need to arrange for a sign language specialist to interpret the consultation. We can normally arrange most services or equipment quite quickly to ensure your experience is a positive one.

If English is not your first language and you feel you would benefit from an interpreter, please let the office staff know; they will be happy to arrange an interpreter for you.
How to contact us

General Enquires

The IVF Unit is open **8.00am to 4.00pm** Monday to Friday. If your query is with a nurse please phone between **1.00pm and 3.00pm**. If the member of staff you need to speak to is unavailable, arrangements will be made either to call you back, or give you a time when they will be able to speak to you. The nursing staff are usually busy in the mornings and cannot take calls, however if your call is urgent a member of the nursing team will call you back as soon as possible, if you leave a message.

There is an answer phone out of hours: **01482 382648**

The fax number of the Unit is: **01482 382672**

There are many people involved in the IVF programme. You will meet most of them on your various visits to the hospital. Some are behind the scenes, but without all of their support and enthusiasm it would be impossible to run the Unit. The staff will go to great lengths to keep you informed about your progress. **If there is anything that you do not understand, please ask.**

The aim of the IVF Unit has always been to provide full and detailed information to all couples throughout every stage of their treatment. Whilst we feel that the support and information we provide to be of the highest standard, we also value feedback from our patients. If you have any suggestions which you feel may improve our service to you in any way, please put them forward to any member of our staff, or e-mail us at: hullivf@mail.com

Urgent Enquires

If you have a desperate problem either on a weekend or out of the normal IVF Unit working hours, that can’t wait until the next working day, please contact the hospital switchboard on **01482 875875** - ask the switchboard staff to contact the IVF Unit nurse on call. Your call will be returned as soon as possible. If your problem is not urgent then you can leave a message on the IVF Unit answer phone. Please leave your **name** and **telephone number**.
What treatments are available?

Approximately 1 in 6 couples will experience difficulty in achieving a pregnancy. There are a number of possible reasons.

The following treatment options are available:
- Ovulation induction
- HyCoSy (a tubal patency test)
- Intra Uterine Insemination (IUI)
- Donor sperm insemination
- In Vitro Fertilisation (IVF)
- Intra Cytoplasmic Sperm Injection (ICSI)
- Embryo cryopreservation
- Sperm freezing
- Oocyte freezing
- Surgical sperm retrieval
- Oocyte donation / sharing
- Sperm donation
- Embryo donation
- Surrogacy

Additional information booklets are available about specific treatments.

What is IVF?

In Vitro Fertilisation (IVF) is the medical term for the "test-tube baby" technique. It literally means that the egg and the sperm meet and fertilise in a glass dish or test tube. This technique was originally designed to help women with damaged fallopian tubes, as the egg and the sperm are prevented from meeting by the tubal blockage. However, it has now been found to be of use in other circumstances such as selected cases of male infertility and unexplained female infertility.
Getting started

The referral process

The first step is to obtain a referral letter from your General Practitioner or private consultant. Unfortunately not everyone will be suitable for treatment and selection criteria do apply.

Selection criteria

1. The success rates are very poor once a woman is aged 40 years or over. We may only offer to treat women over 40 years of age following counselling and tests to ensure the ovaries are functioning satisfactorily; subject to the Medical Director’s discretion, we are able to commence treatment up until the date of the lady’s 46th birthday. We will not offer treatment to anyone under the age of 18. Women over the age of 44 cannot be put on the waiting list for donated eggs.

2. Independent counselling is offered to all patients no matter what treatment you are having. Implications counselling is mandatory for all patients considering the use of donated sperm, eggs, or embryos.

3. We have a legal obligation to the welfare of existing children, and any child born as a result of any treatment, and must refuse treatment if doubts about such welfare exist. In order to assess the welfare of the child we will give you a letter to take to your General Practitioner who will sign it to indicate to us that he knows no reason why you should not be treated. We will also ask each partner to complete a questionnaire from the HFEA.

4. **Your general health is relevant to the risks and chance of success of therapy and for this reason we discourage smoking, alcohol and poor diet.** Folic Acid: Trials have confirmed that there is an association between reduced folic acid intake and the development of neural tube defects, such as Spina Bifida, in infants. We advise all patients to take 400 mcg of folic acid daily to reduce the risk of spina bifida in the newborn.

5. **Female Body Mass Index (BMI)** – BMI is a measure of body “fatness”.

   Currently the IVF Unit does not treat any new patient with a body mass index greater than 35 at the time of treatment.

   If you are funded by one of the Yorkshire and Humber CCG’s, you will not receive funding unless your BMI is <30

   BMI is calculated by dividing your weight in kilograms, by your height in metres squared. Weight (kg) / [height (m)]²

   **Normal Range:** 18.5 - 25: **Overweight:** 25 - 30: **Obese:** >30

   The reason for this restriction is that increased BMI is associated with a decreased pregnancy rate and increased risk of miscarriage and other complications if pregnancy is achieved.

   If you have problems calculating your BMI before we see you, you could ask the practice nurse at your GP surgery to work out the BMI for you. (see page 14 for BMI chart).
Funding of treatments by Health Authorities

Some Health Authorities may be willing to fund your treatment within our Unit. This is not automatic: their eligibility criteria, and also the numbers and types of treatment fundable, vary with different Health Authorities. We can advise you about this.

If you think you might be eligible for funding from your Health Authority you must inform the IVF Unit administrative staff, and they will make an application on your behalf.

Once your Health Authority has given approval we will inform you; your treatment cannot be started until authorisation is received.

The IVF Unit administrative staff will be happy to advise you further regarding your eligibility for funding: please telephone (01482) 382648 or call at the reception desk.

Private charges for consultations, investigations and treatments

For private patient costs relating to consultations, investigations and treatments at the Hull IVF Unit, please see our separate charge sheet or visit www.hullivf.org.uk and select the Fees tab.

Once a treatment has been confirmed, we will provide you with a costed treatment plan including an estimation of drug costs.

Methods of payment are via: your own or your partner's credit/debit card (telephone payments are also acceptable, please note the person whose name is on the card must be the person who contacts the Unit to make the payment), cheques (made payable to East Riding Fertility Services Ltd or E.R.F.S. Ltd.) and cash.

If you would like any further information relating to the costs involved with your treatment, please do not hesitate in contacting us at the Hull IVF Unit on 01482 382648.
Screening investigations

Before you commence treatment, some investigations must be performed to ensure that you are both suitable for this type of treatment. If you feel that you have already had any of these investigations please let us know.

**AMH**: AMH is a hormone measured from a blood test. This blood test needs to have been carried out recently to help us judge what drug regimes will suit you.

**Prolactin (for the woman)**: Prolactin is a hormone measured from a blood test.

**Antral Follicle Count (for the woman)**: An Antral follicle count is performed by ultrasound scan.

**Rubella (for the woman)**: A blood sample will be taken to confirm your immunity to rubella (German Measles). It is important to have the result of this test before your treatment starts. If you are shown to be "not immune" you must discuss the need for immunisation with your own general practitioner or infertility specialist. Any immunisation or repeat immunisation must be done before starting the treatment cycle.

**Screening for HIV and Hepatitis B and C**: Before treatment can commence, both partners must be screened for Hepatitis B surface antigen, Hepatitis B core antibody, Hepatitis C and HIV infections. The Hull IVF Unit does not have the facilities required to treat those patients who are HIV and Hepatitis positive or those patients. Arrangements will be made for referral of these patients to a centre equipped to meet their needs. The implications of this testing will be explained to you, and counselling will be available, prior to being tested.

**Chlamydia screening**: Chlamydia is a micro-organism which can lead to damage of the fallopian tubes. It is tested using a urine test for the male partner and a vaginal swab for the female partner. It can also be tested by taking a blood test to investigate the presence of antibodies to Chlamydia.

**Cervical smear**: It is necessary for you to have had a cervical smear within the last three years. If you have not had a recent smear, please visit your GP to arrange this before your treatment starts. If you are not on a normal recall with your smear tests then we need a clear smear test within your recall, e.g. 6 months, 12 months etc.

**Semen evaluation**: Although you may have had a Semen Analysis carried out recently in the hospital, we may still require this to be repeated. The booked test, where the sample is produced on site, is more detailed and gives us more information, allowing us to determine how treatment will be attempted. (This may not be necessary for those patients requesting treatment with donor sperm).
Lupus Anticoagulant, Anticardiolipin antibody screening, B2 Glycoprotein antibody screening and TSH: These blood tests may help the clinician assess whether you have an increased risk of a miscarriage or an increased risk of problems during pregnancy. There are many reasons why ladies may miscarriage and not all risks can be assessed by a blood test. However, if these blood tests show any abnormalities the clinician can initiate treatment to reduce the risk for you.

Tubal patency test: This investigation can be done in one of two ways;

- HyCoSy - an ultrasound investigation of the fallopian tubes. A fluid, which is opaque when viewed by ultrasound, is infused through the tubes. The sonographer will observe the fluid to determine if it spills freely from the end of the tubes and over the ovaries. If the fluid is not seen to pass through the tubes a laparoscopy and dye (see below) will be organised to assess your tubes further.

- Laparoscopy and Dye - Performed in theatre under a general anaesthetic. An endoscope is passed into pelvic cavity through the navel. Dye is passed through the cervix into the uterus. The surgeon will then watch the dye pass through the tubes. If the fluid is not seen to pass through the tubes we would assume the tubes may be blocked. If any other disease such as endometriosis is found this will be treated at the same time.

Ultrasound scan: All patients having IVF will have an ultrasound scan carried out to exclude cysts in the ovaries, fluid within in the fallopian tubes (hydrosalpinges) or fibroids in the uterus.

The management of these, if necessary, will be discussed with you before treatment commences.

All investigations must be up to date before commencing a treatment cycle and the office staff will liaise with you regarding any investigations that are outstanding. If you have any queries regarding this please do not hesitate in contacting us.
Preparation for IVF

Your general health is very important. Remember treatment is designed to get you pregnant so eat a healthy, well-balanced diet. If you smoke, **STOP NOW**, as it can seriously affect your chances of success. Alcohol should be avoided before the treatment programme is started. Alcohol taken in the three months prior to producing a semen sample may affect its quality.

A BMI (Body Mass Index) of less than 35 is critical. This is the relationship between your height and weight.

Folic acid: Trials have confirmed that there is an association between reduced folic acid intake and the development of neural tube defects in infants. We advise all patients to take 400 mcg of folic acid daily to reduce the risk of spina bifida in the newborn.

Contraceptive pill / Norethisterone: In order to regulate your cycle and plan your individual treatment cycle we may prescribe the contraceptive pill or Norethisterone.

Caffeine: Stop drinking all drinks containing caffeine (coffee, tea, carbonated drinks) before treatment.

Fatty acids: There is some evidence that taking Omega 3 and Omega 6 supplements can help fertility.

Alternative therapy: We are often asked whether patients would benefit from Acupuncture, Reflexology or other complimentary therapies. It is unlikely that it will change the outcome of your treatment. However, if you are wishing to pursue a complimentary type treatment that involves taking oral preparations please check with the nursing staff before you start. Some herbal remedies may not be appropriate.
**Perfumes, deodorants, cosmetics:** Human embryos are very sensitive to volatile organic compounds – which include the solvents and other agents contained in all of the above. We therefore ask that patients attending the IVF Unit reduce to a minimum their use of these on the day of their appointments. This is particularly important during oocyte retrieval and embryo transfer procedures.

**Abandoned cycles:** There are several stages in the treatment cycle. Each stage is carefully monitored, but problems can occur which mean that the cycle has to be abandoned. These problems are unavoidable. This does not necessarily mean that another IVF cycle could not be attempted.

**Intimate examination:** Due to the nature of sub-fertility treatment, some of the investigations and procedures are of an intimate nature. We understand that you may sometimes have to come alone for your appointments; if you feel you need a chaperone please ask one of the nurses and one will be provided for you. We must insist a chaperone is present if you attend alone for an examination by a male member of staff.
General advice and consent

Before commencing any treatment you should be satisfied that you have been given full information about what the treatment involves, the consequences of the decisions you are being asked to make (including legal parenthood). It is important that you have a clear understanding of the benefits (likely success rates) and the risks (see complications of IVF).

This information booklet is only a starting point for discussion and throughout your treatment you will be given additional verbal and written information, plus the opportunity to ask questions.

Legal parenthood

Legal parenthood when a married woman is seeking treatment with her husband –

1. If the couple are using the husband’s sperm or embryos created using the husband’s sperm, the husband will automatically be the legal father of any child born as a result of the treatment.

2. Where a married woman is seeking treatment using donor sperm or a donor embryo, her husband will be treated as the legal father of any child born as a result of that treatment.

Legal parenthood when the woman has a civil partner or has had a same sex marriage, and is seeking treatment with her partner - Where a woman in a civil partnership, or married to a same sex partner, is seeking treatment using donor sperm, or donor embryos, the woman’s civil partner will be treated as the legal parent of any resulting child.

Legal parenthood when a woman is seeking treatment with a male partner -

1. Where a woman is not married to but is seeking treatment using her partner’s sperm, or embryos created using her partner’s sperm, the partner will automatically be the legal father of any child born as a result of the treatment.

2. Where a woman who is not married or in a civil partnership is to be treated with a male partner using donor sperm, or embryos created with donor sperm. The male partner can be treated as the legal father of any resulting child providing the correct consent forms have been completed and signed.

3. A woman who is married but separated or in a civil partnership but separated, and is requesting treatment using donor sperm with a new partner must be assessed carefully. The Unit must ensure that the husband or civil partner has withdrawn consent to be the legal parent. See 8th Code of Practice for advice Legal Parenthood - HFEA Code of Practice. The correct consent forms must be in place to ensure the new partner has the correct parental rights.
Legal parenthood when a woman is seeking treatment with a female partner -

Where a woman who is not married or in a civil partnership is to be treated together with a female partner using donor sperm, or donor embryos, the female partner can be treated as the legal parent of any resulting child providing the correct consent forms have been completed and signed.

A woman who is married or in a civil partnership but separated, and is requesting treatment using donor sperm with a new partner must be assessed carefully. The Unit must ensure that the husband or civil partner has withdrawn consent to be the legal parent. See 8th Code of Practice for advice Legal Parenthood - HFEA Code of Practice. The correct consent forms must be in place to ensure the new partner has the correct parental rights.

Summary of Legal Parenthood in Treatment Involving Donation

Legal parenthood following treatment with Donor Sperm –

Any child born from sperm donated through the IVF Unit is the legal child of you and your partner, if you have one providing that the correct consent forms are in place. If you have a female partner, she can obtain parental responsibility. The donor has no legal rights or responsibility for the child.

Legal parenthood following treatment with Donor Eggs –

You are the legal parent of the child and the donor cannot make a claim for, or be responsible for the child.

By law, the woman having treatment is considered to be the baby’s mother, not the woman who donated the eggs.

If you have a husband or male partner who gave his consent to the treatment, he is considered by law to be the baby’s father.

If you have a female partner, she will be considered as the second parent and her name be placed on the birth certificate providing she gives consent.

Legal parenthood after embryo donation –

On occasion, embryos which have been created for use in the treatment of a woman or couple being treated together are not actually used by the woman undergoing treatment. If the woman or couple decide not to use an embryo in their own treatment, they may decide to donate their embryo for use in the treatment of others. In these circumstances, the Human Fertilisation and Embryology Act 1990 sets out who will be considered the legal parents of any child born as a result of the donation.

1. The child’s mother, after embryo donation –

   The woman who gives birth is always considered to be the child’s legal mother. This is the case, even if the treatment involved the use of donated eggs or embryos.

   The law only recognizes one person as the legal mother of a child.
2. **The child’s father/second parent, after embryo donation** –

Where the woman who gives birth is married, her husband will be presumed to be the legal father of the child, unless it can be shown that he did not consent to the embryo being placed in his wife.

Where the donor treatment took place before April 2009, and the woman being treated is not married, but was being “treated together” with a man, that man will be the legal father of the child.

Where the woman giving birth is not married, the legal father or second parent of the child will be the person who is named on the ‘consent to parenthood’ forms. Both the named person, and the woman giving birth, must consent to that man being recognised as the legal father or woman being the second parent of the child.

Where the woman giving birth is in a civil partnership with or married to another woman, the legal second parent will be her partner, unless it can be shown that the female partner did not consent to the embryo being placed in the woman giving birth.

A female second parent is not the legal mother of the child; the law does not allow a child to have two legal mothers.

3. **Treatment of a single woman with donated embryos** –

Where a donated embryo is used in the treatment of a single woman she is the mother. The law is not as explicit in such cases about who might be considered the father. Whilst it is our view that it was Parliament’s intention that the man whose sperm was used in the creation of the embryo should not be considered the father, there remains an uncertainty in law.

**The HFEA therefore advises any man intending to donate an embryo that was originally created for his partner’s and his own treatment to seek legal advice before doing so.** In particular, he should satisfy himself about any potential to be recognised in law as the father of any child born if the embryo is donated to a single woman who does not have a husband or civil partner or has not entered into a parenthood agreement with another person.

One way of avoiding this potential uncertainty, is for a couple donating an embryo (or a man donating an embryo created during treatment with his partner) to consider placing a condition on the use of the donated embryo.

The donating woman could, for example, state that the embryo should only go to a woman who is in a legally recognised relationship that gives legal parenthood to the recipient’s husband or civil partner, (or a recipient who has consented to another person being the second parent to her children).

**Things to remember about the new parenthood law**

- Make sure that you provide the appropriate consents before embryo transfer or insemination takes place.
- You may need to complete new consent forms to ensure that any child born has a legally recognised father or second parent.
- **Between the legal status of ‘father’ or ‘parent’ and having ‘parental responsibility’ for a child. If you have any doubts or concerns about legal parenthood or parental responsibility for a child born as a result of treatment services, you should seek your own legal advice.**
- If you are not sure whether you have provided the appropriate consents, speak to the IVF Unit staff.

For further information about parenthood issues please see the HFEA website at the following address: [http://www.hfea.gov.uk/patient-questions-parenthood-law.html](http://www.hfea.gov.uk/patient-questions-parenthood-law.html)
Giving consent to treatment

All investigations, examinations and treatments within the IVF Unit are only carried out with your consent. This is a general statement regarding the types of consent you will be required to give in order for us to provide you with treatment. Most of the official HFEA consent forms will be discussed with you when you see the nurses at your appointment to discuss down regulation. Treatment will then commence once the forms are satisfactorily completed. Some other consents will be sought and discussed as you progress through the treatment process.

1. Consent to disclosure
   a) To your GP/Healthcare Professionals outside the clinic to provide medical care -
   This enables us to obtain information about you, which will help us independently confirm your identity, and enable your GP to advise us of any medical conditions which may be relevant during your treatment. We also take the view that it is best for your GP to know what is going on, which is why we ask for a referral letter from your GP before being seen in the clinic.

   b) Information from the HFEA Register being disclosed to researchers -
   During the course of your treatment information is collected and recorded for the HFEA. This information may be of use to researchers investigating how to improve treatments. You will be given more detailed information about this and you have the option to opt out of disclosing this information to researchers if you wish.

2. Consent for examination

   If we decide that an examination is required, verbal consent will be obtained. If a trainee/observer is in the Unit we may ask you for your consent for them to observe. You have a right to decline.

3. Consent for Assisted conception treatment
   a) Before treatment commences
   Treatments have specific consent forms issued by the Human Fertilization & Embryo Authority. The process of filling these in will take place prior to commencing down regulation.

   These consents should be signed by both partners, even when donated gametes/embryos are being used. This is because the commissioning partners will be the legal parents.

   We will make you aware that any partner, including a donor, can withdraw their consent at any time during the treatment process, prior to the replacement of embryos.
b) **During treatment**
   At the time of embryo replacement, you will sign a consent form for embryos to be replaced. This form includes the number of embryos to be replaced.

c) **After treatment**
   If there are spare embryos which can be frozen, and you have not already completed the relevant HFEA form, then consent to storage can be obtained. This will include details of the permitted storage period. Please note that when you consent for storage (of embryos, sperm or eggs), this will be for a defined period of time: once that time has expired we are required by law to dispose of the stored embryos, sperm or eggs.

   These consents will also detail what may happen in the unfortunate circumstance of the demise of either partner.

   You can, if you wish, choose for the agreed storage period to be ended early: we would dispose of your stored embryos (or eggs, or sperm) – but we would need your written consent in order to do this.

4. **Consent for use of sperm or eggs**

   This consent dictates the circumstances in which your sperm or eggs can be used in future. You can put conditions on its use, and change these at any time.

5. **Counselling (both sections)**

   If you have any concerns about the consent process, and want to discuss this with our independent counsellor, this can be arranged.
Counselling services supporting treatment

We offer two sorts of support counselling: Implications and Support counselling

In addition, some patients are required to have a counselling assessment, to support welfare of the child issues.

As part of the contact you will enter into with the counsellor, the exact type of counselling you will have will be made clear from the outset.

Implications counselling

If you are having treatment with donated eggs sperm, then implications counselling is mandatory. This is to help you understand the implications of the treatment for you, your extended family and for any child born as a result of treatment. The counsellor will advise the best ways to tell a child about their origins, and will suggest other resources which may be of help to you with this process.

Support counselling

All of the staff in the IVF unit can provide you with support. But occasionally patients want to have access to an independent and confidential support system, specifically if you are having difficulty coping with the stresses of treatment and the effects this may be having on your work, relationships etc. Patients can access this support system individually, or as a couple. The IVF Unit would not be made aware of any issues which arose during counselling, unless both you and your counsellor felt otherwise.

Counselling assessments

When patients requesting treatment have issues which may affect the wellbeing of any child born as a result of treatment, we are required by the HFEA to make an assessment to determine whether or not to offer treatment. A counselling assessment is carried out, ad along with a social background report, presented for discussion at the IVF Unit Ethics Committee. They advise the patient’s consultant whether they think it is reasonable to offer treatment. The final decision rests with the consultant.

Accessing counselling

If we require you to have counselling, an appropriate referral form with be completed.

If you think you would benefit from counselling and wish to make an appointment, please telephone the IVF Unit office on 01482 382648.

The counselling support service is available to you once you have been placed on the waiting list for treatment, as well as during and after.
Support groups

IVF and related treatments are complicated procedures, and the details may seem confusing, particularly if this is your first treatment cycle. Many of your medical queries will have been answered during your consultations with the Unit medical and nursing staff. It is quite normal for couples to find IVF emotionally stressful. Experience has shown that self-help groups can provide patients with effective support during this time, patients may find it beneficial to be put in touch, on a one-to-one basis with past patients who have shared common experiences. With this in mind, past and present patients have found advice and support from the following networks / online support groups:

- Infertility network UK – [www.infertilitynetworkuk.com](http://www.infertilitynetworkuk.com)
- Fertility friends - [www.fertilityfriends.co.uk](http://www.fertilityfriends.co.uk)
- The DC network - [www.donor-conception-network.org](http://www.donor-conception-network.org)
Stages of the IVF / ICSI process – A General Guide

Everyone is treated as an individual and your treatment will be planned and tailored to your individual needs. At each stage of your treatment, you will be given support and information.

Down Regulated Cycle

The following flow chart describes a treatment pathway for patients attending for the long, down regulated Protocol.

**Approximate Time Line for IVF / ICSI**

- **Day 1**: Period - Ring IVF unit to arrange treatment
- **Day 21**: Down Regulation appt. - Around day 21 of the cycle
- **Day 28**: Period
- **Day 35**: Down Regulation Scan
- **Day 35-45**: Stimulation injections Commence (10 - 14 days)
- **7 days**: Stimulation Scans on alternate days
- **14-18 days**: Ovum Retrieval: IVF / ICSI (Semen sample produced)
- **2 days**: Fertilization check
- **3-5 days**: Embryo transfer
- **14 days**: Period would be due
- **18 days**: Pregnancy Test
Down regulation - what is it?

If we were able to produce a good group of follicles it would be disastrous if a hormone was released to stimulate ovulation. Ovulation would mean that all the follicles would be spontaneously ruptured and the eggs would be lost. Better IVF pregnancy results are achieved by temporarily suppressing the release of reproductive hormones from the pituitary gland. This means the patient will be in a temporary state of ‘menopause’ which we refer to as “Down Regulation”. To stimulate the ovaries we will give injections of FSH. Down regulation is also used in frozen embryo cycles and egg recipient cycles to temporarily stop the woman’s own reproductive hormones, to enable us to develop the endometrium (lining of the womb) only.

To achieve the best effect we will commence the down regulation about one week before the start of a period. This will be on or around day 21 for a 28 day cycle. You will be prescribed either a daily injection of Buserelin or a depot injection of Zoladex. The effects of down regulation will be assessed by ultrasound scan before commencing FSH injections. If the ultrasound scan shows that Down Regulation cannot be confirmed a blood test may be required to confirm this.

Side effects are those associated with the menopause: hot flushes, mood swings and headaches are not uncommon. Dry mouth and vagina can also be associated with down regulation. Some patients also remark on the inability to concentrate and a feeling of dizziness.

Cetrotide Cycle - Short Protocol

An alternative form of treatment has been developed recently to prevent spontaneous ovulation. Cetrotide, acts directly on the pituitary stopping its production of LH and FSH, thus preventing ovulation. The drug is given as an additional injection from day 6 of the ovary stimulation injections—you’re the ovaries. The advantage of this treatment is that you do not need to be down regulated, and therefore will not suffer problems with hot flushes and mood swings. Unfortunately, it is not appropriate for everyone.

This type of cycle is used on the Unit more than the down regulated cycle as patients do not experience the side effects associated with down regulation.

Most patients will be taking Norethisterone to help program the cycle. Not all patients will need to take Norethisterone, if you are not required to take Norethisterone the nurses will let you know. If required, you will be given a date to stop taking Norethisterone this will initiate a period. You will commence the stimulation injections on the second day of bleeding. The Cetrotide injections will be commenced on the 6th day of stimulation and will be taken at the same time each evening until the end of the cycle.
The following flow chart describes a treatment pathway for patients attending for the Cetrotide cycle, short protocol.

Approximate Time Line for IVF / ICSI

- **day 1**: Period - Ring IVF unit to arrange treatment
- **day 21**: First appointment to sign consent forms
- **2 to 5 days**: Stimulation injections
  - Commence on the second day of bleed
  - Stimulation Scans on alternate days
- **7 days**: Ovum Retrieval: IVF / ICSI (Semen sample produced)
- **14-18 days**: Fertilization check
- **2 days**: Embryo transfer
- **3-5 days**: Period would be due
- **14 days**: Pregnancy Test
- **18 days**:
Stimulation of egg production

Within the ovary a layer of cells surrounds each egg cell. The ovary is stimulated in a normal cycle by release of Follicle Stimulating Hormone (FSH) released from the pituitary gland at the base of the brain. The cells surrounding the egg produce fluid such that a fluid-filled ball or follicle is produced. The egg cell is in the wall of this follicle. Usually about 20 eggs are selected in a natural cycle but only one follicle, the dominant follicle, is mature to grow large enough (18 - 25 mm) to ovulate (release an egg).

By having injections of a high dose of FSH, more follicles, each containing eggs, can be encouraged to develop. Hopefully more will develop through to a mature stage, thus allowing more eggs to be available for recovery. An attempt should be made to fertilise all the eggs to give an increased chance of pregnancy. We normally retrieve about 10 eggs, however each patient is different and some patients may get more than this, and some get less. When fertilisation has taken place the best quality embryo, or embryos can be replaced.

The treatment regime chosen for you is personalised to you and may vary from cycle to cycle depending on outcome.

Monitoring of ovarian stimulation and down regulation

All types of treatment are monitored by the use of ultrasound. A vaginal ultrasound scan involves gently introducing a blunt narrow plastic probe covered by a sheath into the vagina. This allows the ovaries and the endometrium (lining of the womb) to be seen on the monitor screen at the bedside.

Very accurate measurements can be taken, and images produced. The procedure is without discomfort and is done with an empty bladder. Your husband or partner may be present should you wish. If you come alone for the scan a chaperone can be arranged for you.

The ultrasound scans are performed by a trained Ultrasonographer or nurse. After reporting to the reception to book in, take a seat and the Ultrasonographer or nurse will call you through to the scan room when it is your turn. Remember to visit the toilet to empty your bladder when you arrive for a scan.

Injections

At the first appointment you will be given an injector pack. You will be given a DVD to show you how to draw up and administer the injections. All injections are given subcutaneously, either in the top of the leg or in the abdomen. This is a simple procedure and most couples do it themselves without any help.
If you are using Cetrotide to prevent ovulation a daily injection is commenced beginning on the sixth day of treatment and is also given subcutaneously in the abdomen. If you feel unhappy about giving your own injections it may be possible to arrange for your GP or a practice nurse to do this for you.

**Subcutaneous Buserelin injections**

1. Use a 1ml syringe and attach a green needle.

2. Swab the rubber top of the ampoule with an alcohol swab.

3. Draw up 0.5mls of the solution. This is usually a simple matter of piercing the rubber cap of the ampoule with the needle, and sucking the required volume of the medication into the syringe, up to the required mark (0.5mls)

4. Once the medication has been loaded into the syringe, remove the green needle, and replace it with a fine yellow needle.

5. The best site for a subcutaneous injection in your abdomen is 2 inches on either side of your navel, (or belly button).

6. Wash your hands thoroughly and make sure that the surface you work on is clean.

7. Remove the needle cover.

8. Pinch the area of skin. The injection is given here.

9. Holding the needle like a pencil about 1 inch above the injection site, slowly and gently insert the needle.

10. Release the fold of skin.

11. Depress the plunger all the way, injecting all of the medication, and pull the needle straight out.

12. Dispose of all equipment in the bin provided. **Never** reuse needles or syringes.
Subcutaneous stimulation injections

To do ONE injection you will need: (remember you may need to have TWO injections depending on the dose).

1. A syringe
2. A green or pink needle
3. A yellow needle
4. An ampoule snapper
5. The correct dose of stimulation
6. 1 ampoule of water per injection

You can mix:
- up to 5 ampoules of Merional
- up to 4 ampoules of Menopur
- 1 ampoule of water

1. Put on the pink or green needle on to a 1ml or 2 ml syringe
2. Flick the water ampoule to make sure all the water goes into the vial.

3. Push the clear plastic ampoule snapper over the neck of the ampoule of water. This is to protect your fingers when you snap the lid off.

4. If your ampoule of water has a spot on the lid put your thumb on the spot. Otherwise place your thumbs in a position to snap the lid off the water ampoule (a bit like snapping a piece of chocolate).

5. Draw up all of the water into the syringe.
6. Inject the water in to the first dry powder, twist but don’t shake the vial (as this causes bubbles). Draw back the solution back into the syringe.

7. Inject the solution in to the second dry powder, twist but don’t shake the vial (this causes bubbles). Draw back the solution back into the syringe. Repeat for the further ampoules of dry powder if required (up to 5 Merional, 4 Menopur).

8. Change the needle to a yellow needle.
9. Give the injection into your leg. Choose a fat part (if you can) of your thigh.

10. Throw all the used equipment away in the sharps bin provided.
Drug information

During an IVF cycle different types of drugs are given to you. Sometimes it can be confusing what to take and when. This section is written to help you understand the drugs used in treatment and the side effects.

**Buserelin (Suprecur)**
This is commenced around day 21 of the cycle. It involves using a daily injection that will stop your body producing your reproductive hormones (previously referred to as **down regulation**), so your body will in effect be in a temporary state of menopause. You should have a period approximately one week after starting the injection.

You may experience hot flushes, dry skin and vagina and headaches associated with this temporary menopause. Paracetamol is normally effective at relieving this kind of headache. Due to the way in which Buserelin is taken a localised reaction to the injection is not uncommon.

Buserelin is used as a ‘trigger’ to mature the follicles ready for retrieval. It will be given as a stand-alone dose of 0.5mls 36 hours before ovum retrieval.

**Goserelin (Zoladex)**
Zoladex is given as an alternative to Buserelin. It is a single injection around day 21 of your cycle and its effects last for 28 days. It is given at the IVF Unit by the nursing staff. The side effects are the same as Buserelin.

**Cetrorelix (Cetrotide)**
This is a drug designed to stop your pituitary gland producing hormones which stimulate your ovaries. It is used to prevent the growing follicles from rupturing and ovulating prematurely. The major advantage of this treatment is that there are none of the side effects detailed above with down regulation. In addition, preliminary studies suggest that you may require less FSH to stimulate your ovaries. However, this type of cycle is not appropriate for patients.

**FSH preparations**
These drugs are different forms of Follicle Stimulating Hormone (FSH). You will be allocated one of these in a dose that will be decided by the medical staff. FSH treatment involves having daily injections of Follicle Stimulating Hormone to stimulate the ovaries to produce follicles. The injection is given under the skin. We recommend the injection is given into the leg, and every day alternate sides are chosen. You will be given a DVD to teach you how to do this. Side effects of these drugs are rare, but some patients may get a local inflammation reaction that can be severe in some cases.

- **Merional** - comes in powder form that is reconstituted with solvent. We recommend that up to 5 ampoules of dry powder can be mixed with 1 ml of solvent.
- **Menopur** - 4 ampoules of dry powder to 1 ml of water.
- **Gonal-F** - Comes in a pre-filled pen or in powder form that is reconstituted with solvent. We recommend that up to 3 ampoules of dry powder can be mixed with 1 ampoule of solvent. The water comes in a pre-filled syringe that can be mixed with 3 ampoules of powder.
- **Puregon** - Comes in a pre-filled pen or in a pre-mixed solution. Each vial contains 0.5 ml of solution. The number of vials drawn up depends on the dose of FSH required.
Ovitrelle, Gonasi or Pregnyl

This drug is given approximately 36 hours before ovum retrieval. In practice this means that the injection may need to be given late at night (usually between 9.00 pm and 11.00 pm). The drugs are given in order to mature follicles and eggs ready for ovum retrieval. They are given by means of an injection under the skin as with FSH. The drug is inclined to sting during administration. Side effects are not common but include headaches and tiredness. Some patients complain of local reaction at the injection site but this is rare.

Ibuprofen

Ibuprofen is a pain-killing drug, which also acts as an anti-inflammatory agent. It helps to relieve pain during and directly after ovum retrieval. It is given approximately 1 hour before ovum retrieval. The IVF Unit supplies this drug which is taken orally with a small drink of water. Side effects include stomach discomfort and heartburn.

Utrogestan

Utrogestan is in tablet form, it is started on the same evening as the trigger injection. The IVF Unit supplies Utrogestan to you. 600 mg should be inserted vaginally from the night of the trigger injection. This can either be done all at once at bedtime or three times per day. Utrogestan must be continued after ET. The Utrogestan contains progesterone and is used to keep the lining of the womb thick and give any imbedding embryos the best possible chance of survival. Side effects are rare but local inflammation may cause vaginal discomfort. The preparation contains peanut oil.

Crinone

Crinone is a cream supplied in a pre-filled vaginal applicator. After embryo transfer Crinone can be commenced daily, inserted vaginally. It is best to insert it before going to bed as the cream may make a little mess. The cream contains progesterone and is used to keep the lining of the womb thick and give any imbedding embryos the best possible chance of survival. Side effects are rare but local inflammation may cause vaginal discomfort.

Estradiol Valerate

This drug is taken orally in a Frozen Embryo Transfer (FET) cycle and an Ovum Recipient Cycle. It is commenced as directed depending on treatment. It is dispensed in tablet form; the nursing staff will let you know what dose to take.

This drug is taken to thicken the endometrium, (lining of the womb) before embryo transfer. Side effects are rare, especially in the doses used. Nausea, vomiting and headaches are the main side effects.

Evorel Patches

This drug is applied in a patch form in a Frozen Embryo Transfer (FET) cycle and an Ovum Recipient cycle. Normally a new patch is applied on alternate days. It is commenced as directed depending on the treatment. Side effects are rare, but localised skin inflammation is probably the most common. Nausea, vomiting and headaches have also been reported.
Use of Unlicensed Drugs within the Hull IVF Unit

Occasionally, during the course of your treatment, we will prescribe drugs which are unlicensed for use in the UK. This does not mean the drug is unsafe, or untested, or inferior to other drugs available. The usual situation is that the manufacturer has a licence elsewhere (e.g. Europe or USA), and are awaiting a UK licence, or perhaps we are using the drug in a way that its current licence does not specifically cover. Be assured that when we use such drugs, we do so because we feel that they are safe and the most appropriate for your particular treatment and circumstances.

Use of other products not specifically licensed for IVF laboratory use

Where possible, laboratory products (e.g. plasticware, culture media etc.) are used which have been specifically approved for use within IVF laboratories. Some products, however, which are routinely used within IVF laboratories, have still not yet received specific approval for such use. In all such cases we subject these products to sensitive toxicity testing, prior to their introduction within the IVF laboratory.
Down regulated IVF or ICSI cycle

How do I arrange a cycle?

To arrange your first cycle you need to ring the IVF Unit on the **first day** of your period on 01482 382648. If this is a weekend you must ring on the **Monday** following the start of your period. If you do not call on the earliest opportunity we cannot always fit you into our diary for treatment. We say the first day of your period is the first day of **fresh red bleeding**. This does not include any brown spotting prior to the red loss.

The staff in the office will take some details from you to enable us to work out the best appointment times for you. **It is important that from this moment on that you do not have unprotected intercourse. Condoms must be used at all times until the outcome your treatment cycle is known.**

Those patients who are funding the cycle themselves will be sent an invoice for the cost of the cycle. This **must be paid** before any appointments are sent out to you. Any delay in settling the invoice may result in your appointments not reaching you in time. If you cancel the cycle after this point an administration charge will be made to you. This will only be waived in medical or exceptional circumstances.

The nursing staff will screen your notes and arrange your first appointment. These appointments will be sent out in the post to you along with a set of consent forms to look at and complete as much as possible. We ask you only to put your name and address as required on all the consent forms. We will go through all the consent forms thoroughly at the first appointment before you sign them. It may take up to a week to ten days to receive your appointment pack through the post.

**First (Down regulation) appointment**

We normally arrange this appointment around day 21 of your menstrual cycle assuming a 28 day cycle. If you do not have a 28 day cycle we will calculate the best time for you depending on the length of the cycle. The appointments are normally made on Tuesdays or Thursdays. If you are attending for your first cycle of treatment the appointment will take approximately one to one and a half hours. In subsequent cycles it will last approximately half an hour. **It is important that you and your partner attend together.**

The nursing staff will give you information about the timing of your cycle. They will explain how to store your drugs, and give you an injection pack to enable you to administer your daily injections. The nurse will give a DVD to watch when you get home to give you demonstration of the preparation and administration of injections you will be taking.

You will also be given written instructions and information. Side effects to the drugs will be discussed and written information given. Self-funded patients will be given an invoice for the drugs dispensed on this day. The nurse will spend time answering any questions you may have about your treatment. A mock embryo transfer (ET) will normally be performed by the nursing staff on this visit.
Endometrial Scratching

Endometrial scratching involves the procedure of 'scratching' the endometrial lining of the womb. The scratching is thought to increase the immune system cells and therefore growth factors at the location of the endometrial scratch. This in turn is believed to make the womb more receptive to embryo implantation, encouraging growth. **There is no evidence that this will be of clinical benefit to every patient, therefore it will not be offered to everyone**

The procedure is carried out around day 21-day of the cycle, at the same time as your mock ET. This is performed with a small plastic instrument similar to the process of having a smear examination.

It will normally take approximately 15 minutes to complete. Please be aware that it can be uncomfortable or painful in some circumstances and that bleeding after the procedure is to be expected.

Mock embryo transfer

Embryo transfer procedures are usually straightforward, but sometimes are difficult. In your first treatment cycle or, if embryo transfer has been difficult in the past, you will be required to have a mock embryo transfer. This takes a few minutes and is similar to having a smear taken but you will have your legs supported in stirrups. The procedure involves passing a small plastic tube through the cervix. This lets us plan the most appropriate cannula to use when we are putting your embryos back later in the treatment cycle. It also allows us to measure the length of the uterine cavity so we can place the embryos appropriately.

Down regulation scan appointment

Approximately two weeks after the down regulation appointment you will attend the Unit for an ultrasound scan to determine if the down regulation drugs are effective. If the ultrasound shows down regulation then you will be given a date to commence the stimulation injections. We will also arrange an appointment for a second ultrasound scan.
Further scan appointments

Approximately five to seven days after commencing the stimulation injections we will perform an ultrasound scan. We will count and measure all the follicles seen and measure the endometrium, the lining of the womb. The dose of stimulation drug may be changed depending on the response by the ovaries. A nurse will discuss your progress with you after the scan, and answer any queries you may have.

Remember that you will need to collect more drugs on this day, please allow extra time for them to be dispensed. Most patients attending for a scan will be collecting drugs, and each set will take approximately fifteen minutes to prepare. Please be patient. Self-funded patients will be given an invoice for the drugs given on this day.

Another scan appointment will be arranged for you at the next scan clinic to monitor your progress. Scan clinics are held on Mondays, Wednesdays and Fridays in the afternoon. You will be scanned at each clinic until you are ready for Ovum Retrieval.
Patients ready for ovum retrieval

Normally after ten to fourteen days of stimulation the follicles should be large enough for Ovum Retrieval. We normally give two to three days’ notice for the procedure. The Ovum Retrieval (OR) procedures are normally performed on Monday, Wednesday and Friday mornings. The procedure is performed by either a nurse trained to perform the procedure or a consultant.

You will be given instructions by one of the nurses when you attend for the last ultrasound scan to inform you of the course of events. We will also give you details in writing so you can be sure of everything that you have to do.

For example:

- Abstain from intercourse 3 – 6 days before OR
- Last dose of stimulation drug normally 2 days before OR
- Last dose of down regulation drug or Cetrotide 2 days before OR
- Trigger injection, to mature the follicles, 36 hours before OR
- Commence Utrogestan tablets, to prepare the endometrium, 2 days before OR
- Ibuprofen tablet, for pain relief, 1 hour before OR
- Nil by mouth after a drink at 7am on day of OR
- Bring slippers and dressing gown if you have them
- Bring a snack to eat after the procedure

Those patients who have had Buserelin as a trigger drug will be given a low dose of Pregnyl or Ovitrelle on the day of ovum retrieval. They will also be required to apply oestrogen patches for a few weeks until the outcome of the treatment is known.

You will probably be given an early scan appointment for the last scan if the nurses feel that you are nearly ready for Ovum Retrieval. Remember to allow time for the dispensing of drugs. Self-funded patients will be given an invoice for the drugs dispensed at this time.

The following flow diagram provides a summary of the important details.
**Diagram showing the progress of a down regulated cycle until ovum retrieval**

**CALL THE IVF UNIT WITH THE FIRST DAY OF A PERIOD.**
Self-funding patients will be sent an invoice which should be settled before appointments are posted out to you. Start the oral contraceptive pill on day 2 or Norethisterone on day 21 as advised by a nurse.

**AROUND DAY 21 OF THE CYCLE, ATTEND FOR DOWN REGULATION APPOINTMENT:**
- Sign consent forms
- **Partner to attend**
- Injection technique demonstrated
- Mock ET performed
- Pick up first batch of drugs. Self-funded patients will be invoiced for these drugs

**ABOUT ONE WEEK LATER A PERIOD SHOULD START**

**ABOUT A WEEK LATER A SCAN IS ARRANGED TO CONFIRM DOWN REGULATION:**
*IF THIS CANNOT BE CONFIRMED BY SCAN A BLOOD TEST MAY BE TAKEN.*
If you have not had your period, or are still bleeding by the day of this appointment, please ring the IVF Unit to postpone this scan

**COMMENCEMENT OF STIMULATION INJECTIONS:**
- A date will be given to commence the stimulation injections.
- Continue with down regulation drugs
- Stimulation drugs normally taken for approximately 10 to 14 days before follicles are ready for OR
- Not necessary to attend the Unit on this day.

**ABOUT 5 TO 7 DAYS AFTER COMMENCEMENT OF STIMULATION DRUGS: A SCAN IS ARRANGED TO COUNT AND MEASURE FOLLICLES AND ENDOMETRIUM**
- A nurse will explain your progress and inform you of any changes in your drug regime
- Self-funded patients will be invoiced for next batch of drugs

**SCANS WILL THEN BE EVERY 2 TO 3 DAYS UNTIL OVUM RETRIEVAL**
- To count and measure follicles and endometrium, to monitor progress.
- A nurse will explain your progress and inform you of any changes in your drug regime.
- If you are ready for ovum retrieval written and verbal instructions will be given. What drugs to take? When to take them? How long to abstain? Appointment times
- Self-funded patients will be invoiced for next batch of drugs
IVF or ICSI cycles involving Cetrotide

How do I arrange a cycle?

To arrange your first cycle you need to ring the IVF Unit on the **first day** of your period on 01482 382648. If this is a weekend you must ring on the **Monday** following the start of your period. If you do not call on the earliest opportunity we cannot always fit you into our diary for treatment. We say the first day of your period is the first day of **fresh red bleeding**. This does not include any brown spotting prior to the red loss.

The office staff will take some details from you to enable us to work out the best appointment times for you. It is important that from this moment on that you do not have unprotected intercourse. **Condoms must be used at all times until the outcome your treatment cycle is known.**

Those patients who are funding the cycle themselves will be sent an invoice for the cost of the cycle. This **must be paid** before any appointments are sent out to you. Any delay in settling the invoice may result in your appointments not reaching you in time. If you cancel the cycle after this point an administration charge will be made to you. This will only be waived in medical or exceptional circumstances.

The nursing staff will screen your notes to ensure all necessary information is present before arranging your first appointment. The appointment will be sent out in the post to you along with a set of consent forms to look at. We ask you only to put your name and address as required on all the consent forms. We will go through all the consent forms thoroughly at the First appointment before you sign them. It may take up to a week to ten days to receive your appointment pack through the post.

**First appointment**

We normally arrange this at **any time** prior to your next period. The appointments are normally made on Tuesdays or Thursdays. If you are attending for your first cycle of treatment the appointment will take about one and a half hours. In subsequent cycles it will last approximately half an hour.

The nursing staff will give you information about the timing of your cycle. They will explain how to store your drugs and give you an injection pack to enable you to administer your daily injections. The nurse will give . The nurse will give you a DVD to watch when you get home to give you a demonstration of the preparation and administration of injections you will be taking throughout your cycle. You will also be given written instructions and information, which includes information on the side effects of the drugs. Self-funded patients will be given an invoice for the drugs given on this day. Additional written information will instruct you to call the Unit with the first day of your next period to arrange a scan. The nurse will also spend time answering any questions you may have about your treatment.

A mock embryo transfer (ET) will normally be performed by the nursing staff on this visit. If we are unable to do it at this appointment the procedure will be performed on your first scan appointment instead. If you require a chaperone for this procedure we will be happy to arrange this for you.
To arrange your first scan

Ring the Unit on the first day of your period following your previous appointment and we will arrange your first scan. You must remember to commence the stimulation injections on the second day of bleeding. The scan will monitor the effect of stimulation.

Scan appointments

Approximately five to seven days after commencing the stimulation injections we will perform an ultrasound scan. We will count and measure all the follicles seen and measure the endometrium, the lining of the womb. The dose of stimulation drug may be changed depending on the response by the ovaries. A nurse will discuss your progress with you after the scan and answer any queries you may have. The Cetrotide injections will commence on the 6th day of stimulation.

Remember that you will need to collect more drugs on this day, please allow extra time for them to be dispensed. Most patients attending for a scan will be collecting drugs and each set will take approximately fifteen minutes to prepare. Please be patient. Self-funded patients will be given an invoice for the drugs given on this day. Another scan appointment will be arranged for you at the next scan clinic to monitor your progress. Scan clinics are held on Mondays, Wednesdays and Fridays in the afternoon. You will be scanned at each clinic until you are ready for Ovum Retrieval.

Patients ready for ovum retrieval (OR)

Normally after ten to fourteen days of stimulation the follicles should be large enough for OR. We normally give two to three days’ notice for the procedure. The OR procedures are normally performed on Monday, Wednesday and Friday mornings. The procedure is performed by either a nurse trained to perform the procedure or a consultant.
You will be given instructions by one of the nurses when you attend for the last ultrasound scan to inform you of the course of events. We will also give you details in writing so you can be sure of everything that you have to do.

- Abstain from intercourse 3 – 6 days before OR
- Last dose of stimulation drug normally 2 days before OR
- Last dose of down regulation drug or Cetrotide 2 days before OR
- Trigger injection, to mature the follicles, 36 hours before OR
- Commence Utrogestan tablets, to prepare the endometrium, 2 days before OR
- Ibuprofen tablet, for pain relief, 1 hour before OR
- Nil by mouth after a drink at 7am on day of OR
- Bring slippers and dressing gown if you have them
- Bring a snack to eat after the procedure

You will probably be given an early scan appointment for the last scan if the nurses feel that you are nearly ready for OR. Remember to allow time for the dispensing of drugs. Self-funded patients will be given an invoice for the drugs given at this time.

The following flow diagram provides a summary of the important details.
CALL THE IVF UNIT WITH THE FIRST DAY OF A PERIOD.
Self-funding patients will be sent an invoice which must be settled before appointments can be sent out to you

Day 21- Commence Norethisterone if needed. You will be given a date to stop this at your first appointment

A PERIOD SHOULD START WHEN IT’S DUE.
- ON THE FIRST DAY OF BLEEDING CALL THE UNIT TO ARRANGE A SCAN FOR DAY 5 TO 7 OF THE CYCLE.
- IF YOUR PERIOD STARTS AT THE WEEKEND CALL ON MONDAY MORNING TO ARRANGE THE SCAN

COMMENCEMENT OF STIMULATION INJECTIONS:
- COMMENCE THE STIMULATION INJECTIONS ON DAY 2 OF YOUR PERIOD
- Stimulation drugs are normally taken for approximately 10 to 14 days
- Not necessary to attend the Unit on this day.

COMMENCEMENT OF CETROTIDE on DAY 6:

ABOUT 5 TO 7 DAYS AFTER COMMENCEMENT OF STIMULATION DRUGS:
- Scan arranged to count and measure follicles and endometrium, to monitor the progress of your cycle
- A nurse will explain your progress and inform you of any changes in your drug regime
- Self-funded patients will be invoiced for next batch of drugs
Ovum retrieval day for IVF/ICSI cycles

Arrival

You will have an appointment to attend the Unit for your procedure sometime in the morning. Remember that you should have a drink at 7am then nothing else to eat or drink until after the procedure.

You will be shown to a bed and asked to change into a surgical gown. One of the nurses will locate a cannula into the back of your hand to enable us to give the sedation drugs correctly.

Producing a semen sample

If you are providing a fresh sample, the male partner will be taken to a private room to produce the semen sample for the IVF/ICSI treatment. A sample jar will be provided and labelled. No other jar will be accepted. You will be taken to the dedicated room in the Unit for the production of semen. You should abstain from intercourse/masturbation for at least 3 days, but not longer than 6 days; this has been found to improve the number of motile healthy sperm in the ejaculate. Immediately prior to producing the sample, ensure that your hands are washed and your nails are clean. Wash your penis well with soapy water, rinse and dry well. The sample must be produced by masturbation and ejaculated directly into the jar. Once the semen has been collected, replace the jar lid and do not reopen it. If you have any queries about any of the above information please do not feel embarrassed to ask. (If there is a problem with producing a fresh sample on the day, it may be possible to arrange with the laboratory for a sample to be collected some time before the Ovum Retrieval day, when it can be frozen. This option is only available to a few couples as a fresh sample is always preferred).

The procedure

The OR procedure is normally carried out in the treatment room of the IVF Unit under ultrasound guidance. A partner or friend can stay with you throughout the procedure if you wish. The team will check your identification details and confirm any allergies before starting the procedure.

The ovum retrieval is usually carried out in the IVF Unit, while you are awake, by a nurse or doctor. A nurse will sit with you to administer a sedative and painkilling drugs, directly into the bloodstream through the cannula. It takes about one minute for the drugs to take effect.

If the ovum retrieval procedure is found to be uncomfortable despite the drugs, further doses can be given. Oxygen will be administered continuously via nasal catheters throughout the procedure. A blood pressure machine will continuously monitor your oxygen levels, blood pressure and pulse. The procedure will not start until you are ready and feeling very relaxed.
A needle is attached alongside the vaginal ultrasound device, and the vaginal skin at the top of the vagina is punctured. The tip of the needle can be clearly seen on the ultrasound monitor screen at all times. You can see this on the screen if you wish. The tip of the needle is carefully guided into each follicle in turn. The fluid is then aspirated and handed over to the laboratory staff, who examines it for the presence of an egg cell. Frequently the egg cell is not seen in the first aspirate from the follicle, in which case the needle tip is kept within the follicle and the follicle flushed with fluid, each sample withdrawn being examined for the egg cell. Although every effort will be made to find an egg in each follicle, this will not always be possible. The procedure will be repeated on the other side for the other ovary. The time taken to carry out the ovum retrieval will vary from approximately 20 minutes to over an hour, and mainly depends on the number of large follicles present.

**After the procedure**

After the procedure, you can rest in the recovery room until you feel well enough to go home. This can be any time from half an hour to an hour. Tea/coffee and biscuits are provided for you. If required the main hospital café is available.

Those patients who have had Buserelin as a trigger drug will be given a low dose of Pregnyl or Ovitrelle on the day of ovum retrieval. They will also be required to apply oestrogen patches for a few weeks until the outcome of the treatment is known.

**Do not return to work after the procedure**, rest for the remainder of the day.

**Do not drive**, as the medication you have taken can make you very drowsy.

**Avoid cooking** until the morning after the procedure to help avoid accidents.

In a very few cases, ovum retrieval will be carried out vaginally or by laparoscopy in the operating theatre and with the help of a general anaesthetic.
What happens now to my eggs and sperm?

**IVF or ICSI**

The collected eggs are carefully checked and placed into the incubator in the laboratory. Each patient is assigned their own compartment in the incubator.

All procedures are witnessed by two Embryologists and an electronic tracking system monitors and records all movements of eggs, sperm and embryos.

The semen sample is washed and prepared to select the motile sperm, with greatest ‘fertilising’ potential.

After approximately 4 hours of culture the eggs will be inseminated (IVF) or injected (ICSI) with your partners’/donors’ sperm.

Your proposed treatment (IVF or ICSI) will have been discussed with you in advance. Occasionally it is necessary to make an amendment to this plan, if the results of the semen evaluation performed on the day of treatment, differ to those of the previous evaluation. In this situation a member of the laboratory team will discuss the full implications of this with you in detail. (Additional details are available to describe ICSI).
Fertilisation check

The following day (Day 1 of development) the eggs are checked for signs of fertilisation. We expect approximately 65% of eggs to fertilise.

The day after (day 2) we will check to ensure that the fertilised eggs are capable of dividing to form embryos. At this stage we would expect embryos to be at the 2 – 4 cell stage. 24hours later another check will be made and we would expect embryos to have reached the 6 – 8 cell stage. On this day (day 3), the day for embryo transfer will be decided upon. This decision is based upon the number and quality of your embryos.

Embryo grading

Embryos are graded on days 2 and 3 according to their cell number (i.e. if they have the appropriate number of cells for their stage of development) and the morphology (appearance) of those cells. The embryos are given a score between 1 and 4 (with Grade 4 being morphologically perfect). The score is based on how symmetrical the cells are and if there is any visible cellular fragmentation. Only 20% of embryos receive the highest grade, as it is usual for most embryos to have some slight imperfections. Any embryo which is graded as grade 3 or above is regarded as being of good quality. Embryos below this grade may be a little slower in their development, have some uneven cell division and/or moderate fragmentation (>30%). Pregnancies are still possible from the transfer of poorer quality embryos, however the success rates are lower and embryos below a grade 3 are less likely to reach the blastocyst stage (the next stage of embryo development) and be of suitable quality for freezing.

A similar grading system is used on day 5 to grade blastocysts – again based on the development (expansion of the blastocyst) and morphological appearance of the embryo.
The embryo transfer day for IVF/ICSI cycles

Embryo or blastocyst transfer

Two or three days after your egg retrieval you will be telephoned by the Unit to be given your fertilisation results and an update on your embryo development.

If it is decided to transfer cleavage stage embryos to your uterus, this will take place 3 days after your egg retrieval. If it is decided that the transfer will take place at the next stage of embryo development called blastocyst stage, then the transfer will be 5 days after egg retrieval.

On the day of transfer, which is likely to be 3 – 5 days after egg recovery, you will be called by the Unit to confirm arrangements for your embryo or blastocyst transfer.

Generally embryo transfers are done later in the morning, but be prepared to set off immediately after we have called you in case we need you soon. Very occasionally fertilisation and development occurs late, so make sure we can contact you to arrange your embryo transfer up to and including 3 to 6 days after egg recovery.

The transfer of an embryo or blastocyst is very similar to the mock transfer that you will probably have had prior to the first treatment cycle. The procedure is usually painless and normally only takes a few minutes.

How many embryos will be transferred?

A new policy for the transfer of embryos and blastocysts became effective from January 2009, in order to meet Government requirements for the Unit to reduce the twin pregnancy rate to 10%. The strategy for reducing the multiple pregnancy rate depends on increasing the number of cycles in which only one embryo is transferred.

We have consulted widely to enable us to introduce a policy which will help to maintain our positive pregnancy rates. This policy will be discussed with you at your consultation with your Consultant and at the Group Information Session and after your egg retrieval.

From October 2012, the proposal to transfer a single embryo or blastocyst will apply to female partners of 37 years and younger.
Women over 37 years of age:
It is the policy of the Unit to transfer a maximum of two embryos. The law restricts us to the transfer of two embryos in women under 40. However, those patients receiving donated eggs will be restricted to the transfer of a maximum of two cleavage stage embryos or one blastocyst even if they are over 40, as the anticipated success rate, and twin pregnancy rate, is much higher than expected for your age. We are permitted to transfer 3 embryos but only in exceptional circumstances and if the woman is more than 40 years old with multiple treatment failures.

The more good quality embryos we transfer the more likely you are to become pregnant. If all embryos implant you are also at risk of multiple pregnancy. It is important that you read the section on multiple pregnancy in this booklet. The age of the woman and the grades of the embryos influence the risk of a multiple pregnancy. All women having a blastocyst stage transfer are strongly encouraged to consider having a single embryo transferred.

The laboratory staff and a doctor or nurse will discuss with you the number and quality of your embryos. A joint decision is then made about how many you wish to have transferred and the embryologist may also discuss the possibility of blastocyst stage transfer with you. If you wish, you can look at the embryos under the microscope before they are transferred. Once the number is decided, the ‘best’ embryo(s) are chosen and loaded into a very fine plastic tube which is then passed via the vagina up through the cervix (neck of the womb) into the uterus.

Women aged 37 years and below:
The Unit policy will be to transfer one blastocyst where possible, as this maximizes the chances of you becoming pregnant. On day 3 after your eggs are fertilized they will be assessed by the embryologists. If 2 or more embryos are of good quality, we will suggest that we culture all of the embryos further until they develop into blastocysts. Some may not grow on, but if we do start with 2 good quality embryos, our experience suggests that we should have at least 1 blastocyst to transfer. Allowing embryos to grow onto the blastocyst stage acts as a form of natural selection so that the fertilized egg with the best chance of developing is replaced. Spare blastocysts can be frozen and stored for use in subsequent treatment.

On day 3 you may decide that you wish to have an embryo transferred, rather than attempt to culture to blastocyst. If there are 2 or more good quality embryos, then a single embryo will be replaced. We will offer to freeze the remaining embryos.

If the quality of the embryos is such that there are less than 2 good quality embryos, then we will offer to replace up to 2 embryos on day 3.

This new area of practice will be continually audited, and may change at short notice. There is also a lot of current research about how to better assess embryos and blastocysts, which may have an impact on clinical practice within the next few years.

Post – transfer of embryos or a blastocyst

Once the embryos have been replaced you will walk back to the recovery room where you can rest with some refreshments. A nurse will give you your discharge information which will include how much rest you should have and when to perform the pregnancy test. She will also give you information regarding commencing the progesterone (Crinone cream or Utrogestan pessaries) until the pregnancy test is performed. We would recommend that you do not perform heavy lifting or excessive exercise. However, it is important that do not rest too much in the days leading to the pregnancy test.
Freezing spare embryos

We are often asked if spare embryos can be frozen to use in a different cycle at a later date. Embryos must be very good quality before they will survive the freezing and thawing process (blastocysts stage embryos are particularly vulnerable to the process and survival rates tend to be lower than for those frozen on day 3). Once the best embryos have been transferred into your uterus at embryo transfer the rest are usually of a poorer quality and sometimes cannot be frozen and thawed successfully. We only freeze in 30% of cycles currently.

The benefits of frozen embryo transfer cycles are that they are less invasive and there are fewer injections to take. The cost of a frozen cycle is approximately a third of the cost of a fresh cycle. The freezing and storage charges for private patients can be seen at the beginning of this booklet. If you decide to freeze any spare embryos, then an invoice, for the cost of freezing and storage of embryos for one year, will be sent to you after embryo transfer. NHS funded patients who meet the freezing criteria (based on the number of available embryos and quality) are entitled to have embryos frozen and stored for up to 3 years, however restrictions apply and these will be discussed with you in detail.

The success rate of a frozen cycle is approximately half that of a fresh cycle. The quality of embryos and the possibility of freezing will be discussed at length with you at the time of your embryo transfer. If you decide you wish to freeze, further consent forms must be completed on the day of ET, so it is important that you both attend.

Your frozen embryos will not be used for any other purpose without your consent. It is important to note that not all embryos frozen will thaw successfully.

Post treatment advice.

You are advised to rest completely on the day of embryo transfer. Normal bladder and bowel function will not affect the embryos. You should take it easy for the next 2 weeks but resting in bed will not improve the success rate and may actually cause harm. It is difficult for us to give precise advice about do's and don'ts after ET. Going for walks and gentle house work will not be a problem. We advise you to abstain from heavy lifting or strenuous exercise and we would prefer it if you avoid stressful situations, which might mean taking time off work. However, for some sitting at home doing nothing may produce more stress! Whatever you do ensure you feel comfortable with your choice.
Detection of pregnancy

If treatment is unsuccessful, a period should be expected approximately 2-3 weeks after ovum retrieval, although this has been known to be as early as 1 week and as late as 3 weeks afterwards.

If you have not had a period 20 days following ovum retrieval, you should suspect the possibility of a pregnancy. You will be given a pregnancy testing kit on embryo transfer day along with written instructions of how and when to do the test.

Even if you start a period we will ask you to perform the test. You must call the Unit as soon as possible to inform us of the outcome. If you are very upset because the pregnancy test is negative you may not feel ready to speak to anyone on the Unit. You may wish to call the Unit out of hours and leave a message on the answer machine. It is important we know quickly to arrange support and follow-up for you.

We will discuss your cycle at our weekly audit meeting at which we review all cycles to see if there are lessons we can learn from them, looking at your cycle we may make recommendations to improve the next cycle.

We may be able to improve the drug regime or change the way we do things. We may decide that the cycle went well and can’t be improved. A letter will be sent to you to confirm that the meeting has taken place. You can then call the Unit to arrange feedback from the meeting. This could be by phone or if you prefer by follow up appointment.

Waiting for the outcome can be one of the most stressful times of the entire treatment. Remember that the Unit counsellors are available if you need someone to talk to. We can arrange counselling for you at any time if you wish.

If the test is positive a scan will be arranged to confirm the pregnancy. The scan will normally take place one month after the pregnancy result is known. You will also be required to attend the Unit to pick up a supply of pessaries to be taken for a further 25 days.

Often the period after IVF can be heavier, lighter, more painful or last longer than a normal period. Occasionally, patients may experience a period and yet still remain pregnant. If you are unsure about whether you are having a period or not, don’t hesitate to call the nursing staff for advice, and continue with the Crinone cream or Utrogestan. During this time it is common to experience some abdominal pains. If these do not settle with simple painkillers please contact the Unit.

It is also very common during this time to have some vaginal bleeding. This can occur as the embryos try to implant in the uterus. If you have any concerns about blood loss before your expected period, please contact the Unit and continue with the Crinone cream or Utrogestan.
Frozen embryo transfer cycles

Before your embryos can be transferred to your uterus, the lining of the uterus (the endometrium) will need to be prepared with hormone therapy. The drugs will only develop the endometrium; the ovaries will not be stimulated.

How do I arrange a cycle? (If you are still having periods)

To arrange your first cycle you need to ring the IVF Unit on the first day of your period on 01482 382648. If this is a weekend you must ring on the Monday following the start of your period. We say the first day of your period is the first day of fresh red bleeding. This does not include any brown spotting prior to the red loss. You should commence the Norethisterone on the 21st day of the cycle.

The administrative staff will take some details from you to enable us to work out the best appointment times for you. They will send out an invoice which will need settling before your appointments are sent out.

The first appointment you have will be to sign consent forms and be given drugs to commence down regulation. We normally arrange this appointment around day 21 of your menstrual cycle assuming a 28 day cycle. If you do not have a 28 day cycle we will calculate the best time for you depending on the length of the cycle. The appointments are normally made on Tuesdays or Thursdays.

The appointment will take about half an hour. The nursing staff will give you information about the timing of your cycle. They will explain how to store your drugs and give you an injection pack to enable you to administer your daily injections. The nurse will also spend time answering any questions you may have about your treatment. We require your partner to attend in person to sign the consent form.

All self-funded patients will be given an invoice for the drugs given on this day.

How do I arrange a cycle? (If you are not having periods)

You will call the IVF Unit when you are ready to have treatment. The office staff will take some details from you and transfer your notes to the nursing staff. The nurses may arrange for a hormone blood test to ensure your oestrogen levels are low. If you are taking HRT you will need to discontinue the medication before the blood test can be taken. If the blood test shows down regulation an appointment will be made to sign consent forms ready for treatment and collect the drugs ready for the cycle.

The appointments are normally made on Tuesdays or Thursdays. The appointment will take about half an hour. The nursing staff will give you information about the timing of your cycle. All patients will be given an invoice for the drugs given on this day. The nurse will also spend time answering any questions you may have about your treatment.
If you are not having periods because of ovulation problems you may need a course of medication to bring on a period. The nurses will arrange this for you. You can then call the IVF Unit with the onset of a period. Appointments will then be prepared as in those patients having periods.

**Drugs required for a frozen cycle**

The hormones taken in a frozen embryo cycle are either taken orally in the form of tablets or applied as patches to be absorbed into the skin. Some of the drugs required for this type of cycle are sometimes dispensed by the hospital pharmacy. You will be given a prescription on the day that you attend for your down regulation consents appointment. We advise you to get these drugs dispensed as soon as possible to ensure you have them before you attend for a scan. Sometimes the hospital pharmacy may have to order them, and the drugs can take a few days to arrive. You will need these drugs before we can commence the next stage of treatment.

**First scan appointment**

Approximately two weeks after the down regulation appointment you will attend the Unit for an ultrasound scan to determine if the down regulation is effective. If the ultrasound shows down regulation then you will be given a date to commence the oestrogen patches. We will inform you to apply one Evorel patch on alternate days. An appointment will be given for a second ultrasound scan approximately 10 days later. If the demand for FET appointments is high you may be required to continue on down regulation whilst you wait for a treatment slot, before commencing patches.

**Further scan appointments**

Approximately ten days to 2 weeks after commencing patches we will perform another ultrasound scan. We will measure the endometrium, the lining of the womb. The dose of patches may be changed depending on the response noted. You may be asked to commence two patches on alternate days. A nurse will discuss your progress with you after the scan and answer any queries you may have.

Another scan appointment will be arranged for you at the next scan clinic to monitor your progress. Scan clinics are held on Mondays, Wednesdays and Fridays in the afternoon. You will be scanned at each clinic until you are ready for embryo transfer, which should be when the endometrium measures about 8 -10mm thick and is of normal appearance.

**Preparation for embryo transfer**

If the ultrasound scan shows that the endometrium is ready for ET, you will be asked to increase the dose of the patches you are taking to two patches on alternate days (if you haven’t already increased). You will also be asked to commence Estradiol Valerate tablets 10mg once daily.

In addition you will need to take 600 mg of a hormone called Utrogestan which is given vaginally. You will be instructed when to stop using the Buserelin injections.

Around four days after you commence the Utrogestan, you will be ready for the embryos to be transferred to your uterus. You will have been given the opportunity to discuss how many embryos you would like to be thawed. The embryologist will call
you on the morning of your embryo transfer to give you information about your embryos and arrange a time for the embryo transfer.

Occasionally the embryos do not survive the thawing process, so the embryo transfer may be abandoned at this stage.

Embryo transfer (ET)

For your embryo transfer no sedation or anaesthetic is required. It is the same procedure which was carried out at the fresh ET. Please refer to instructions given in the early section of this booklet. In addition to commencing progesterone, you will also carry on with the Evorel patches and the Estradiol Valerate tablets.

The pregnancy test will be performed two weeks after FET. You probably will not have a period before carrying out the pregnancy test – but this does not necessarily mean you are pregnant: it is important not to get your hopes built up. If the pregnancy test is positive, you will need to continue with the progesterone and oestrogen supplements for about another 3 to 4 weeks. A scan will be arranged in the IVF Unit after a positive pregnancy test. If the test is negative you will be advised to discontinue all drugs. It is then you will start a period.

The follow up for failed and positive cycles is the same for both IVF and frozen embryo transfer.
CALL THE IVF UNIT WITH THE FIRST DAY OF A PERIOD. You will be sent an invoice, if self-funding your treatment, which should reach you in a few days. If you are no longer having periods a blood test will be arranged to confirm down regulation. Your appointments will be sent out when the invoice is settled. Start the oral contraceptive pill on day 2 or Norethisterone on day 21 as advised.

**FIRST APPOINTMENT AT THE UNIT**
- Injection technique demonstrated
- Mock ET: performed if this has been difficult procedure before
- Pick up first batch of drugs. You will be invoiced for these drugs
- Sign consent forms

**ABOUT ONE WEEK LATER:** a period should start if you are still having periods

**ABOUT A WEEK LATER A SCAN IS ARRANGED TO CONFIRM DOWN REGULATION:** If this cannot be confirmed by scan a blood test may be taken. If you have not had your period, or are still bleeding, by the day of this appointment, please ring the IVF Unit to postpone this scan.

**COMMENCEMENT OF EVOREL PATCHES:**
- A date will be given to commence the patches.
- Continue with down regulation drugs
- Patches normally taken for approximately 3 weeks
- Not necessary to attend the Unit on this day.

You will apply one patch on alternate days for 2 weeks then 2 patches on alternate days for a further week. A scan will then be arranged to assess the endometrium for transfer.
- A nurse will explain your progress and inform you of any changes in your drug regime
- You will be invoiced for next batch of drugs.

**FURTHER SCANS WILL THEN BE ARRANGED IF NEEDED UNTIL YOU ARE READY FOR ET**

READY FOR ET: The nurse will give you an appointment for the procedure. Your drug regime will be changed
- Commence 10mg Estradiol Valerate daily.
- Commence 6 Utrogestan pessaries daily.
- Stop the Buserelin injections
Reasons why a planned treatment cycle may be abandoned or delayed

Rarely, a cycle of IVF must be abandoned. We make every effort to ensure all your investigations are complete and are within normal limits before starting treatment. But sometimes we have no option but to abandon treatment during the cycle. Problems may become apparent during the cycle that we have not known about when the treatment was commenced. If we have to abandon a cycle, self-funded patients will be charged for the treatment at the point which the treatment was cancelled. All abandoned cycles will be discussed at our weekly audit meeting and a follow up appointment will be arranged, if you wish.

Down regulation day

If you have had unprotected intercourse before you attend for this appointment there is a risk you may have achieved a pregnancy. It could be harmful to the pregnancy if the drugs were commenced and the mock ET was performed. We would have no option but to delay the commencement of your treatment cycle for a month.

First scan day for down regulated cycles

On your first scan day we hope to see no ovarian activity at all. Sometimes a cyst may be seen at the first scan. To ensure it is a cyst, and not a follicle growing, a blood test will be taken on that day.

Treatment is delayed until the blood results are back from the path lab. If the results show that a follicle is growing then treatment will probably be abandoned. If the test shows that it is just a non-functioning cyst then FSH injections can be started and the treatment continued.

Second scan day

Treatment may be abandoned due to very poor response to the drugs used to stimulate the ovaries. If this is the case then we may take blood tests to help us determine why your ovaries have not responded. Treatment may also need to be abandoned if you produce too many follicles in response to the drugs given to stimulate the ovaries. If too many follicles above 10mm are present you may be at an increased risk of ovarian hyperstimulation syndrome (OHSS)(see later section for further details).

Ovum Retrieval

Although we may have seen several follicles at scan days throughout your cycle, we may not be able to retrieve any eggs at ovum retrieval. We may not have any answers as to why this has happened but we may take blood tests to help us gain a better picture. Again an appointment will be made for you to see a consultant.

Embryo Transfer

It may well be that you have had a good number of eggs retrieved and the semen sample used is good enough quality but still no fertilisation takes place, or occasionally embryo development may arrest in culture.

We always ask you to expect an early morning phone call on the day of planned embryo transfer – if you have not already received our phone call by 10.30 am.
please call the Unit. If the news is bad it is better if both patient and partner are together to give each other support. We therefore advise you not to ring the Unit by yourself.

A follow up appointment will be arranged to try to talk through what has gone wrong. We cannot guarantee answers.

It may also be the case that a large number of eggs were retrieved and that you are at risk of developing Ovarian Hyper-stimulation Syndrome (OHSS). This problem can be exacerbated if you become pregnant so we may have to decide to freeze the best embryos to be replaced later in a frozen embryo transfer cycle. It has been shown that this strategy could increase the chances of pregnancy for this group of patients as the endometrium may be more receptive in a frozen cycle.

**Not following instructions**

It is important to follow any instructions given by the staff of the Unit carefully. Sometimes the treatment cycle has to be abandoned because the patient fails to comply with part of the treatment. If you do not understand any instructions given, you **must ask** as mistakes can lead to treatment being abandoned.

**Frozen Embryo Transfer**

It may be that when you attend the IVF Unit on the day of your scan, the lining of the womb might not be as thick as we had hoped. We would probably rescan you after a few days to allow the lining to thicken up with a little extra time. At the time of rescan, if there is no change to the lining of the womb, we may decide to abandon the treatment cycle. Further cycles could be attempted and the drug regime would probably be changed to suit you better.

**Fragmentation of thawed embryos**

Some embryos do not survive the thawing process and fragmentation occurs. This will cause the treatment to be abandoned unless there are other embryos that can be thawed.
Complications of IVF treatment

Drug reactions
During IVF treatment drug reactions are rare, but as with all drugs, some individuals may have reactions. In the case of injections, the site may become bruised and tender. When you are down-regulated you will experience symptoms of the menopause e.g. hot sweats, poor memory, disturbed sleep and feeling irritable. These symptoms will disappear when your FSH injections commence.

Infection
The risk of getting infection inside your pelvis after an egg retrieval is small and has been estimated to be 0.2 – 0.4%. Giving antibiotics prior to the oocyte retrieval procedure does not reduce the incidence of this problem.

Haemorrhage
The needle which is used to pierce the vaginal wall to drain the ovarian follicle may cause bleeding from the vagina which is easily controlled by simply applying pressure to the area with a piece of gauze. You will have a speculum passed at the end of the egg retrieval to see whether or not any bleeding has occurred.

There may also be some blood loss from the ovary. It is very rare for this to be a major problem, however, in some patients even a small amount of blood can cause pain due to irritation of the tissue lining the inside of the abdomen.

Trauma
The needle used to retrieve the eggs has been reported as causing damage to the bladder, ureters (tubes from kidney to bladder), bowel, and large pelvic blood vessels. The incidence of these complications is small and is estimated to be 0.1 – 0.2%.

Ovarian Hyperstimulation Syndrome
Ovarian Hyperstimulation Syndrome (OHSS) is a condition that can occur after treatment with FSH. We regard OHSS as being one of the most potentially serious complications of IVF/ICSI. To date there have been 5 deaths in the UK associated with this condition. It occurs when the ovaries overreact to drugs given to help ovarian follicles to develop. Symptoms usually appear 3-10 days after the egg retrieval. The risk of OHSS is minimised by careful monitoring of ovarian follicular development during the treatment cycle. In our Unit this is done by ultrasound.

Ovarian Hyperstimulation Syndrome is classified as being mild, moderate, severe or critical, depending on the symptoms. The incidence of severe hyperstimulation is estimated to be 0.2% (i.e. 1 in 500).

- Mild hyperstimulation: Patients with mild hyperstimulation may experience slight abdominal pain and swelling. The treatment is rest and pain relief, if required. Some blood tests may be taken to help monitor the progress of the problem.
- Moderate hyperstimulation: The symptoms of moderate hyperstimulation are more noticeable. The patient will experience abdominal pain and swelling, nausea and vomiting and/or diarrhoea. Treatment involves bed rest, pain relief and careful observation which sometimes means admission to hospital. You must get in touch with the IVF Unit if you have any worries.
- Severe/Critical hyperstimulation: Patients with severe hyperstimulation will have the same features as moderate hyperstimulation but also complain of breathlessness and difficulty in passing urine. This is because fluid is “lost” from the blood system and accumulated in other body tissues. Treatment involves bed rest, pain relief and restoring fluid balance by intravenous drip. It also involves assessing the ovarian size by ultrasound, daily measurement of fluid input and output and blood monitoring. These patients will be nursed in hospital. These patients are more at risk of developing complications such as DVT.

Patients who are at risk of Ovarian Hyperstimulation Syndrome will be informed and given verbal and written information and told what to expect and what might happen:

1. The only way of truly preventing OHSS is to abandon the cycle prior to the administration of the trigger. In the case of down regulation we would continue the down regulation drugs but stop the stimulation drugs. We would scan at regular intervals to ensure the follicles are settling down. Eventually the follicles grown would settle down and the patient would start a period.

2. Buserelin rather than other trigger drugs may be used to reduce the risk of OHSS. Those patients who have had Buserelin as a trigger drug will be given a low dose of Pregnyl, Gonasi or Ovitrelle on the day of ovum retrieval. They will also be required to apply oestrogen patches for a few weeks until the outcome of the treatment is known.

3. Those patients with a lower risk of OHSS may be prepared for ovum retrieval and the eggs collected and fertilized with the usual way. As the symptoms of OHSS are more severe in those patients who are pregnant, we may decide not to perform the ET. Instead all suitable embryos will be frozen, therefore giving the patient time to recover from any symptoms she may have. In these cases patients usually return in approximately two or three months for a frozen embryo treatment cycle.

The clinical features of OHSS usually disappear within two weeks if the patient is not pregnant. If a pregnancy occurs the duration of OHSS is longer and the symptoms can be more severe. With careful monitoring we hope to limit the number of eggs recovered in a treatment cycle to roughly 8-10. Obviously there will be patients who have a poor response to FSH and patients who respond too well, even on low doses of FSH. Each patient will be carefully monitored by the medical team.

**Egg retrieval**

Drug therapy. Problems with the drugs used to provide you with pain relief during the egg retrieval are extremely rare. They can cause difficulties with breathing, and, as with any drug, may result in an allergic reaction. To minimise risk to you, your breathing, pulse and blood pressure will be monitored during the procedure.

Antidotes and resuscitation drugs are available in the theatre.
Pregnancy

Previous pregnancy - If you have been pregnant before, then the chances of treatment success increase by 20%.

The two major early problems that can occur after IVF are miscarriage and ectopic pregnancy.

- **Miscarriage:** Whether or not a pregnancy results from natural conception or IVF, approximately 20 - 25% will miscarry. All of the following problems can occur after natural conception or IVF. Modern pregnancy tests become positive approximately 14 days after your embryo transfer, and 10 days before an ultrasound scan can detect a pregnancy. If you have a positive pregnancy test during this time, and you have some pain or bleeding, we may not be able to tell you whether or not your pregnancy is continuing unless we serially measure the pregnancy hormones (beta HCG) in your blood. This hormone only tells us that you have a pregnancy, it does not tell us if it is a viable pregnancy. It does not give any more information. If HCG levels rise and then fall before a pregnancy is seen on scan, this is referred to as a biochemical pregnancy that has failed. At your first scan what we should see is a pregnancy sac, or sacs, each containing a baby whose heart can be seen beating. The problems that can be detected at this scan are as follows: a baby may be seen, but the heart is not beating. This pregnancy will miscarry. A pregnancy sac may be seen, but it does not contain a baby. This is referred to as a blighted ovum. This pregnancy will miscarry. In both of the scenarios arrangements may be made to keep an eye on you until the pregnancy has resolved.

- **Ectopic pregnancy:** No evidence of a pregnancy may be found in the uterus. This may mean that the pregnancy sac is developing elsewhere. The commonest site for this is the fallopian tube. This is referred to as an ectopic pregnancy that will have to be removed surgically as there is a risk of internal haemorrhage. This diagnosis is more likely if there is a history of previous tubal damage or pelvic surgery, and pain is experienced on one or other side of the lower abdomen.

Antenatal care for all IVF/ICSI conceived pregnancies

Once pregnant, and the problems of the early weeks of pregnancy have passed, there are still increased risks to your pregnancy. Research has shown that following problems of pregnancy, while still uncommon, occur more frequently following assisted conception:

- Delivery less than 32 weeks, delivery less than 37 weeks, low birth weight, low weight for gestational age, caesarean section, admission to a neonatal unit, loss of a baby before, or shortly after delivery.

Surprisingly the same research demonstrates that twin pregnancies conceived from assisted conception have a 40% reduced chance of losing a baby around the time of delivery. Because of these increased risks, we do not consider your pregnancy suitable for midwifery-led care. We would advise that you book under the care of a Consultant, and delivery in a Unit with medical cover, and all available forms of intra-partum monitoring available.
Multiple pregnancy

All patients undergoing fertility treatment, which involves drugs to stimulate the ovaries, are at risk of multiple pregnancy. Approximately 1 in 16 naturally conceived pregnancies is a multiple, whereas national forms suggest 1 in 4 IVF pregnancies are multiple. There is a national policy to reduce the number of embryos transferred per cycle and in Hull, 2011, 7.9% of pregnancies were twins.

The current legislation directs us to transfer a maximum of 2 embryos in any one cycle if the woman is aged under 40, even if there are more embryos available for transfer. While there is a direct relationship between the number of embryos replaced and your chances of becoming pregnant, you have also an increased chance of multiple pregnancy. While you may consider this to be desirable, there are many risks of multiple pregnancy which you must consider carefully before embarking on treatment.

The following implications of multiple pregnancy should have been discussed with you at the clinic:
- Increased risk of pregnancy complications
- Increased practical, financial and emotional stress
- Increased risk of losing the pregnancy
- The babies are at higher rate risk of short and long term disability
- The availability of a procedure to reduce the number of babies and its risks
- You should have been reminded of the availability of independent counselling

The reasons for multiple pregnancy should be explained:

- Monozygotic twinning i.e. one egg dividing into two (identical twins)
- More than one embryo being transferred (accounts for 95% of all multiples)

Before embarking on treatment consider the following information carefully. **We will want to discuss this with you, as it is our aim to give you the best chance of getting pregnant**, with the least chance of multiple births. Replacing two embryos will not double your chances of pregnancy it will only increase the chances of pregnancy by 4.3% in some cases.

There are many factors, which influence your chances of multiple pregnancy. Patients aged 35 years and under are at particular risk (33% multiple birth rate – latest HFEA figures). The risk declines with advancing maternal age. However there is still a significant proportion of pregnancies in the over 40 age group that are multiples (14%).

In 2014 The Hull IVF Unit’s multiple pregnancy rates was 3.2%. This means that only 3.2% of pregnancies achieved at the Unit resulted in a multiple pregnancy.
What does a multiple pregnancy mean for you?

Antenatal - There are higher risks of miscarriage and pre-term delivery. There are also higher risks of problems such as pre-eclampsia.

Birth - The chances of a multiple pregnancy going to full term are reduced. There is also an increased risk of delivery by caesarean section. If you are delivered early then your babies may require intensive care and could be very ill. All babies who have such care are at risk of long term complications such as breathing, hearing and sight problems as well as brain damage. The risk of cot death is also increased.

<table>
<thead>
<tr>
<th></th>
<th>Average duration of pregnancy</th>
<th>Risk of loss during late pregnancy / the first week of life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singleton</td>
<td>40 weeks</td>
<td>0.9%</td>
</tr>
<tr>
<td>Twins</td>
<td>37 weeks</td>
<td>3.7%</td>
</tr>
<tr>
<td>Triplets</td>
<td>34 weeks</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Social aspects of multiple births - A family may need to move house to cope with the new family. The cost of childcare should be considered specifically if the children’s mother wishes to return to work. There is no help from social services to help care for these babies. You may have to rely on parents or friends for help. Clothes and food for one year for triplets is estimated to be £6000.

Should multiple pregnancy occur:
- You will be given appropriate advice about the management of your pregnancy
- Information about help groups locally and nationally will be given
- We will remind you of the availability of counselling

Further reading:

Success Rates at the Hull IVF Unit

The Hull IVF Unit - Results 2015 (full calendar year)

In 2015 405 cycles were started and 341 embryo transfers were performed. The results below are clinical pregnancy rates per embryo transfer.

Out of the 341 embryo transfers that were performed in 2015, 30% of patients had embryos to freeze for use in a future treatment cycle. As this is the most recent data the results have not been validated by the HFEA, but we like to keep you informed of our current success rates.

Fresh treatment cycles - 2015

<table>
<thead>
<tr>
<th>Age</th>
<th>Clinical pregnancy rates 2015 (% &amp; raw numbers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ages</td>
<td>36.1 (123/341)</td>
</tr>
<tr>
<td>&lt;35</td>
<td>42.6 (78/183)</td>
</tr>
<tr>
<td>35 – 37</td>
<td>34.7 (26/75)</td>
</tr>
<tr>
<td>38 – 39</td>
<td>28.2 (11/39)</td>
</tr>
<tr>
<td>≥40</td>
<td>18.2 (8/44)</td>
</tr>
</tbody>
</table>

IVF versus ICSI

The two main treatment types during fertility treatment are IVF and ICSI. IVF and ICSI are advised for individual patients according to their investigations and history.

In 2015, 45.5% of patients had treatment with ICSI.

Below are the results for all age groups showing the clinical pregnancy rates for 2015 are comparable between the two treatment types. These results are from the latest Hull IVF Unit data and show results per cycle started for patients using their own eggs.

<table>
<thead>
<tr>
<th></th>
<th>Clinical pregnancy rates 2015 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVF</td>
<td>36.6</td>
</tr>
<tr>
<td>ICSI</td>
<td>35.4</td>
</tr>
</tbody>
</table>
Frozen treatment cycles - 2015

In 2015, we have performed 93 frozen embryo transfer cycles, with 92 of those reaching an embryo transfer. The clinical pregnancy rates per transfer cycle in 2015 were 44.6% (41/92).

Multiple pregnancy rate

In January 2009, the HFEA set a multiple birth minimisation strategy to target fertility clinics that had high multiple pregnancy rates. Each year since 2009 the target maximum multiple birth rate has been lowered and The Hull IVF Unit has sat well within the target rate whilst not compromising our pregnancy rates.

In 2015, The Hull IVF Unit’s multiple pregnancy rates was 6.5%. This means that only 6.5% of pregnancies achieved at the Unit resulted in a multiple pregnancy.

From 1st January 2014 the HFEA withdrew the condition that all licensed clinics must maintain their multiple birth rates below the HFEA target. However, this is still an area that we believe is in the best interests of our patients and will continue to reduce the avoidable risk of multiple pregnancies.
Latest HFEA validated data

Clinical pregnancy rates (July 2014-2015) and live birth rates (July 2013-2014) for maternal age

The HFEA update the data that is published on their website for every clinic, every quarter year. They also publish figures stating what the national average is to aid an easy comparison between your chosen clinic and the national data.

The following results describe the clinical pregnancy rates in 2014-2015 and live birth rates in 2013-2014 for The Hull IVF Unit and the HFEA national averages, in the same quarter years. These results are per cycle started for both IVF and ICSI treatments with the patient’s own eggs and for all maternal age categories.

<table>
<thead>
<tr>
<th>Age</th>
<th>Clinical pregnancy rates 2014-15 (Q2) (% &amp; raw numbers)</th>
<th>HFEA national average clinical pregnancy rates 2014-15 (Q2) (%)</th>
<th>Live birth rates 2013-14 (Q2) (% &amp; raw numbers)</th>
<th>HFEA national average live birth rates 2013-14 (Q2) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;35</td>
<td>37.9 (80/210)</td>
<td>31.7</td>
<td>34.1 (63/185)</td>
<td>33.7</td>
</tr>
<tr>
<td>35 – 37</td>
<td>20 (17/85)</td>
<td>25.1</td>
<td>24.7 (24/97)</td>
<td>29.8</td>
</tr>
<tr>
<td>38 – 39</td>
<td>10 (4/40)</td>
<td>18.5</td>
<td>23.7 (9/38)</td>
<td>21.9</td>
</tr>
<tr>
<td>40 – 42</td>
<td>8.3 (5/60)</td>
<td>11.2</td>
<td>7.9 (3/38)</td>
<td>13.8</td>
</tr>
<tr>
<td>43 – 44</td>
<td>8.3 (1/12)</td>
<td>5.3</td>
<td>25 (1/4)</td>
<td>4.8</td>
</tr>
</tbody>
</table>
Get in touch

We are always happy to see past patients and take great joy in sharing in your celebrations.

Our team is dedicated and enthusiastic – we care about the individual and we are always looking for ways in which we can improve the service that we offer.

We are always pleased to hear your comments.

Copy of IVF Notes

If you would like a copy of your medical case notes, please contact the IVF Unit who will forward an “Application for Access to Health Records” form along with an invoice for the photocopying fee to you. Once the completed and signed form, along with the required payment is received at the Hull IVF Unit, we will commence the process of photocopying your case notes. Please note that it takes approximately two weeks to process each request, from the date we receive the completed application form. If you and your partner have received treatment with us at the IVF Unit, the application form will need to be completed and signed by you both before we can commence the photocopying of your medical records.

The cost for the administration fee and copying of the notes is available on request.

Due to the obvious confidential nature of the request, notes may only be collected in person from a HFEA licensed clinic. Once the notes are ready for collection you will be contacted by a member of the office team and a mutually convenient appointment will be made for you to attend to collect the case notes. If the notes are in both your and your partner’s names, both of you will have to attend to collect the case notes from the Unit. We will not be able to release the notes without taking a copy of photographic ID for each of you so please ensure you bring either your photographic driving license or passport to this appointment.

We do understand that it may not always be possible for you to collect the photocopied notes in person, i.e., if you have moved out of the area. If you specifically request that your notes are posted, you will need to arrange for the notes to be posted to a licensed fertility clinic nearby to where you live. You will need to notify us in writing of the full postal address of the clinic and the person who will be expected your notes to be delivered. There is an additional charge of £10.00 to cover the cost of the “special delivery”.

If you require any further information regarding obtaining a copy of your notes, please contact us on 01482 382648.
Complaints procedure

If you have a complaint regarding either a member of staff or the treatment you have received in the Unit, it should be reported to the Consultant Nurse as soon as possible. In most cases it may be possible to resolve these problems immediately with the staff who have dealt with your treatment within the Unit.

However, if you feel that your complaint needs more detailed investigation, please send your complaint in writing addressed to:

- Dr J Robinson at The Hull IVF Unit, Women & Children’s Hospital, Hull Royal Infirmary, Anlaby Road, Hull, HU3 2JZ.

This formal complaint will be fully investigated. You will receive an immediate acknowledgement to your complaint and in most cases you can expect a detailed response within three weeks of receipt of your letter, although this may on occasion take longer if information is required from several members of staff.

If you feel that there is any way we can improve the service that we provide please let us know. Comments made to us are extremely valuable; they enable us to assess continually the service we provide, and as we always strive to provide a high standard of care, any comment given is always welcome.

All patients of the IVF Unit have the right to access their patient records. An application should be made in writing to the consultant responsible for your care.

Complaints can also be made via The Parliamentary and Health Service Ombudsman at Millbank Tower, Millbank, London, SW1P 4QP

The Human Fertilisation and Embryology Authority, (HFEA), our licensing body, will also investigate any complaint which suggests that a clinic has failed to keep to their licence.

Their address is:

10 Spring Gardens
London
SW1A 2BU

Tel: 020 7291 8200
Fax: 020 7291 8201

Email us: enquiriessteam@hfea.gov.uk

Opening hours: 9:00 - 17:00 Monday to Friday