IVF/ICSI PATIENT INFORMATION

1 INTRODUCTION

You are about to commence your IVF/ICSI treatment with the Wales Fertility Institute.

Wales Fertility Institute has two licensed centres one at the University Hospital of Wales, Cardiff and the other at Neath Port Talbot Hospital where your scans, blood tests, egg collection and embryo transfer will take place. Your treatment will be planned to take place in the centre nearest to your area of residence however on occasion it may be necessary to transfer the care of patients between the two sites and you will be kept informed if this arrangement is required to be undertaken.

2 AFTER READING THIS LEAFLET

You may have some queries after your discussions with the clinician you say for consultation and after reading this leaflet you may have some queries – we have put a patient query component onto the last page of this leaflet [under point 16] in order you can write down any queries that you wish to have clarified. These can be discussed with you at your next appointment or with a member of the WFI team at your next attendance. Some patients will have queries and some will not there is no right or wrong so do not feel you have to raise any queries if you do not have any.

3 CONTACTING WALES FERTILITY INSTITUTE

WFI Cardiff	General Enquiries/ appointments:	Tel 02921 843047
	Out of hours emergency	Tel 02921 847747 and ask for the On Call IVF Consultant
WFI Neath Port Talbot	General Enquiries	Tel 01639 862698
	Out of hours emergency	Tel 01639 862000 and ask for the On Call IVF Consultant

4 BLOOD TESTS

It is our policy to screen both partners for HIV, Syphilis and Hepatitis B and C. These tests must be performed within 3 months prior to egg collection (for your first cycle of treatment). For subsequent cycles tests must be performed no longer than 2 years before egg collection. The results of these tests will be given to you at one of your appointments. If any of these tests are positive then treatment will be stopped and you will be referred to a specialist. WFI has the facilities and expertise to treat those patients with ongoing of past infections.

5 COUNSELLING

The impact of fertility issues and treatment can sometimes be overwhelming. Support from our counsellors at any time throughout your care can be comforting and provide additional support. Counselling is a requirement when having treatment that involves donated sperm or eggs, surrogacy or fertility preservation.

6 CONSENT FORMS

Before you begin treatment you will be required to read and sign forms consenting to all the different aspects of your treatment. Without the consents your treatment cannot take place. You will be provided with these but if you have any queries please contact the nurses. Whilst you must give your written consent to the

different procedures and processes involved in your treatment, you can withdraw your consent to a particular procedure at any time up until the point that procedure has been performed.

7 AN OVERVIEW OF OVARIAN STIMULATION

In order to increase your chances of pregnancy it is desirable to obtain a number of eggs (ideally between 8-12) by stimulating the ovaries with various drugs throughout your treatment cycle. FSH (follicle stimulating hormone) is used to encourage the growth of follicles in the ovary, This follicular growth can be seen and measured using ultrasound. The egg inside each follicle is too small to be seen with ultrasound but once two or three follicles have reached 18mm in size the eggs inside them should be mature and ready for collection. Occasionally when follicles are ready to ovulate they can release a hormone called Progesterone. The early release of this hormone might produce some changes on the lining of the womb making it less suitable for implantation. This may reduce the chances of achieving a pregnancy. This is the reason why if there are more than three large follicles a blood sample for progesterone test will be taken before triggering the ovulation. According to the result of the progesterone and according to the overall cycle performance, a decision on whether to proceed with fresh embryo transfer or with elective freeze of the embryos will be made together with you and the clinician overseeing your treatment cycle. At this point you will be asked take your HCG injection which is responsible for egg maturation. It is very important that you adhere to the instructions given to you regarding this injection as your egg collection takes place approximately 36hrs later.

There are a number of different protocols that can be used to stimulate the ovaries. WFI mainly uses: Long protocol or an Antagonist protocol. The type of protocol that will be used will be explained to you and will depend on your age, cause of infertility and previous fertility history. Whilst every effort is made to ensure that our patients proceed to egg collection patient may under-respond to stimulation; meaning that not enough follicles are developing to continue with the treatment cycle. Alternatively patients may over-respond to stimulation meaning that they produce too many follicles and are at risk of Ovarian Hyper-Stimulation Syndrome (OHSS). In such cases it may we may have to freeze your embryos are replace them in another cycle to allow the OHSS to subside. In other situations it may not be safe to continue with treatment and the cycle may have to be cancelled.

If your cycle has to be cancelled you will be asked to stop most of the drugs you have been taking. We will arrange a follow up appointment with a doctor as soon as possible. At this appointment the doctor will review your cycle and stimulation to assess if modifications can be made in a further attempt

7.1 Possible side effects of ovarian stimulation

The drugs used to stimulate follicular growth can have side effects which include:
Headaches; tiredness, mood swings, hot flushes, nausea and pelvic discomfort

Not all patients will experience these but if you become concerned please speak to one of our nurses.

8 EGG COLLECTION

Egg collection takes place approximately 36 hours after taking the trigger injection of HCG. The eggs are collected vaginally under ultrasound guidance using needle to aspirate the fluid from each follicle. This fluid is then examined by the embryologists in the laboratory who look for the eggs. It should be remembered that not every follicle contains an egg and in some cases it may not be possible to gain access to all the follicles. The eggs are then placed into a culture dished which is labelled and electronically tagged with your unique identification to await being inseminated.

At the WFI we perform egg collections under intravenous sedation which is very effective at controlling pain. You will be conscious but sleepy throughout the procedure and you should be able to go home around 2 hours later. You should have someone to look after you when you leave the clinic. You will not be able to drive, operate machinery or sign legal documents for at least 24 hours.

A small amount of vaginal bleeding is normal and complications are rare however there is always the risk of infection or heavy bleeding. You may feel uncomfortable after the egg collection for a few days. If so you can take Paracetamol.

You will be prescribed hormone pessaries of progesterone (Cyclogest) to take every day, morning and evening. These support the lining of the womb and are put into the vagina or the rectum. You should take these from the day of egg collection to support the hormone level in the second half of the cycle. You may need to continue taking them until 12 weeks of pregnancy

9 SAFETY AND IDENTIFICATION

All of our patients are identified using official photographic ID (passport, driving licence). In the laboratory the movement of gametes and embryos is double witnessed by two laboratory staff in accordance with HFEA regulations. Additionally WFI has a state of the art tracking system which ensures the ID of every dish and test tube to minimise the chances of misidentification.

10 SPERM SAMPLE

The male partner will need to produce a fresh sperm sample on the morning of egg collection day (unless a frozen sample is being used) or other arrangements are made. Please abstain from ejaculation for between 2-4 days to ensure that the best quality sample is obtained on the day of egg collection.

The sperm sample can be provided on site in our private men’s room, or produced at home and brought in, but the sample must arrive with us within 1 hour of production. Please speak to a nurse prior to the day of egg collection about this, they will provide you with a sample pot and consent form.

11 FERTILISATION AND EMBRYO DEVELOPMENT YOUR DOCTOR WILL HAVE DISCUSSED WITH YOU WHETHER YOU ARE EXPECTING TO HAVE IVF OR ICSI TREATMENT

- IVF: putting the eggs and sperm together in a culture dish to fertilise naturally.
- ICSI: the injection a single sperm into each mature egg.

If you are not sure which treatment you are booked for please ask one of our nurses.

If the sperm preparation on the day of treatment is similar to previous assessments, then the planned treatment is followed. However, if the sperm preparation on the day of treatment is grossly different from previous assessments then the method of fertilisation may change. In this situation one of the embryologists will discuss the reasons and your options.

- The eggs and sperm will be mixed on the afternoon of your egg collection and left overnight to fertilise in the laboratory.
- The embryologist will call you the day after egg collection to inform you how many eggs have fertilised and when the embryo transfer is planned (provisionally).
- Rarely, none of the eggs fertilise and in this situation there will be no embryos available for transfer. You will be offered the earliest possible appointment to see a senior doctor to discuss the cycle and your future treatment options.
- The day of your egg collection is referred to as Day 0 in regard to embryo development and day 1 is when we look for fertilisation.
- Your embryo transfer will be performed between day 2 – 6 and the embryologists will be in contact with you over this time to discuss the embryo development and to tell you when to come in for your transfer.

12 EMBRYO TRANSFER

- The embryos transfer is performed within the WFI theatres. Sedation is not normally necessary for embryo transfer.
- You will need a partially full bladder for the procedure.
- The embryologist and doctor will discuss the embryo development with you and discuss how many embryos to transfer and what the options are for any excess embryos.
- The transfer is performed under abdominal ultrasound guidance. A speculum is inserted and the embryos are transferred into your uterus using a thin tube called a catheter.
- The procedure usually takes about 25 minutes and after that you will be able to leave the unit. You do not need to lie down for a prolonged period afterwards.
- The nurse will give you a sheet of written instructions to follow over the next few weeks.

12.1 Number of embryos to transfer - how to decide?

- Current HFEA guidelines allow us to transfer a maximum of two embryos (or a maximum of three if the woman is older than 40 years of age).
- Having a multiple birth (twins, triplets or more) is the single greatest health risk associated with fertility treatment. Multiple births carry risks to both the health of the mother and to the health of the unborn babies. Twins or triplets are more likely to be premature and to have a below-normal birth weight. 20.8 in 1000 twin births involve the death of a child versus approximately 8 in 1000 singleton births.
- Due to this WFI have criteria for those patients who are suitable for more than one embryo to be transferred.
- The number of embryos that will be transferred will be confirmed on the day of transfer.

12.2 Single Embryo Transfer Policy

Our aim is to transfer one embryo at a time if the quality of your embryos is suitable and if it does not compromise your chances of successful treatment.

Our criteria for single embryo transfer:

- Less than 37 years of age (including donor eggs) in 1st cycle
- Good quality embryos
- Blastocyst transfer
- Medical problems likely to be exacerbated by multiple pregnancy

12.3 What happens to any remaining embryos?

- WFI recommend that only good quality embryos (blastocysts on day 5) that are not transferred be considered for storage as they have the best chance of surviving the process.
- The embryologist will discuss freezing with you at the time of the embryo transfer.
- Before freezing and storing your embryos, we must have consent from both partners.
- If you are NHS patients, the cost of freezing and the first year of storage is included in your treatment if freezing is recommended (the NHS funds further cycles using these embryos)
- If you have a successful pregnancy with your fresh cycle you would need to pay for embryos to be thawed for further treatment.
- There is an annual fee for ongoing storage payable by self funding patients and those NHS patients whose embryos remainin storage for more than one year. Full costs can be found on our price list.

13 PREGNANCY TEST

- You will be instructed to continue taking the progesterone pessary and any other medication you will need to be on till we know the result of your pregnancy test. If the test is positive these will be continued to 12 weeks of pregnancy
- You will do a urine pregnancy test at home checking for pregnancy approximately 14 days after the embryo transfer. Please ring us with the results.

13.1 A Positive Pregnancy Test

- We will usually arrange a ultrasound scan about 3-4 weeks after a positive test
- If your scan is normal with an ongoing pregnancy in the right place, we will refer you to your GP to book your pregnancy and access antenatal care. We will also ask you to inform us about the outcome of the pregnancy. This could be done by phone or by letter.
- If your scan is inconclusive, we will arrange further scans with or without blood tests up until a final diagnosis is reached.
- Your scan may show a miscarriage or ectopic pregnancy and it may be necessary to refer you at this stage to your local secondary care gynaecology department. A review appointment in the fertility centre will also be organised when all is resolved to ensure you recovered well, discuss your treatment cycle and future plans.

13.2 A Negative Pregnancy Test

- This means that the embryos did not implant. You may already have started bleeding but, if not, you will have a period in the next few days after stopping all the relevant medications. This might be heavier than normal because of the hormonal medications you have been taking.
- We will arrange an appointment as soon as possible for you with one of our senior doctors to discuss the treatment cycle and options for future treatment. You may also wish to contact our counselling service at this time.

14 POTENTIAL COMPLICATIONS OF IVF TREATMENT

14.1 Ovarian hyper-stimulation syndrome (OHSS)

This is a potentially serious complication of the use of fertility drugs, particularly in the context of IVF. The syndrome is triggered either by the drugs administered to mature and release the eggs (Human Chorionic Gonadotrophin HCG) or by pregnancy produced HCG. In the vast majority of cases, it is mild and improves without treatment. However, in severe cases, OHSS may require hospital treatment

If you are at increased risk of OHSS you will be informed and given further information from the WFI healthcare professionals.

14.2 Operative Risks

There is a small risk of injury to bowel, bladder or major blood vessels during the egg collection procedure.

14.3 Multiple Pregnancy

Having a multiple birth (twins, triplets or more) is the single greatest health risk associated with fertility treatment. Multiple births carry risks to both the health of the mother and to the health of the unborn babies. Twins or triplets are more likely to be premature and to have a below-normal birth weight. 20.8 in 1000 twin births involve the death of a child versus approximately 8 in 1000 singleton births.

Due to this WFI have criteria for those patients who are suitable for more than one embryo to be transferred. This will be discussed with you throughout your treatment.

14.4 Early Pregnancy complications

The risk of miscarriage following IVF treatment is not significantly higher than the risk of miscarriage following a natural conception. However the chances of an ectopic pregnancy seem to be higher in women having IVF, especially if they already have problems affecting their tubes. The incidence of ectopic pregnancy is 5% of all pregnancies resulting from embryo transfer (normal incidence 1 in 150 - 200 pregnancies).

15 OUR SERVICE

We are working hard to provide the best possible service for you and would welcome any comments or suggestions you may have about our service.

If you have a concern at any time please raise it with a member of staff.

16 PATIENT QUERIES:

Point No	My query is:-

If you have more queries please continue overleaf.