Stimulated Intra Uterine Insemination (SIUI)

Why have I been given this leaflet?

This information leaflet gives you information about your Stimulated Intra Uterine Insemination (SIUI) treatment. It also covers ovulation induction with timed intercourse and SIUI with donor sperm.

What is Stimulated Intra Uterine Insemination?

SIUI works by using fertility medication to stimulate the ovaries to produce one or more eggs, but no more than three. SIUI works by using fertility medication to stimulate the ovaries to produce one or more eggs, but no more than three. The man's semen is prepared to select the best-quality sperm, which is then placed directly into the uterus using a soft catheter. Fertilisation can then occur naturally. In some cases, couples may be advised to have intercourse instead of IUI.

It is important to time intercourse or insemination to match ovulation. Monitoring with blood tests and scans is a key part of the process. It helps improve the chances of pregnancy and reduces risks by checking how you respond to the medication. In particular, it helps prevent too many eggs from developing and lowers the risk of multiple pregnancy.

Why has SIUI been suggested to me/us?

SIUI is one of many fertility treatments available. It may be appropriate if:

- The woman does not ovulate (anovulation). The most common reason is polycystic ovary syndrome (PCOS)
- The semen analysis shows mild abnormalities
- Unexplained infertility
- Where donor insemination has not resulted in pregnancy in natural cycles.

SIUI is not a suitable treatment option for couples where the woman has blocked fallopian tubes or the man has moderate / severe sperm problems

Why might SIUI help?

If your fertility issue is related to egg production, the treatment aims to help the ovaries produce one egg. For unexplained infertility or mild male factor issues, the goal is to produce two or three mature eggs, as this may increase the chances of pregnancy. The sperm is prepared to remove weaker sperm and concentrate the stronger, motile sperm. These are then placed high in the uterus, so more sperm reach the fallopian tubes and increase the chance of fertilising the egg(s).

Is treatment available on the NHS?

NHS funded treatment is available. However, the amount of funding and criteria varies between local Integrated Care Boards (ICBs). Funding will be discussed with you at the time of referral.

To qualify for NHS funding, the female partner must have a Body Mass Index (BMI) between 19 and 29.9. Your BMI will be checked and recorded during your consultation before treatment begins. Maintaining a healthy weight can improve your chances of pregnancy and is safer

during pregnancy. You can collect a pre-conception advice leaflet from reception, and the nurses and counsellors are available for support and advice.

What is the cost of treatment?

If you are not eligible for NHS treatment, you may choose to self-fund. The costs are detailed in our “Treatment Charges” leaflet. If a cycle is cancelled before the insemination day, you will be charged for the monitoring and medications already used.

Payment is required before you start your treatment cycle.

What happens before we start treatment?

1. ***Investigations:***

   All fertility tests are usually done in the infertility clinic before referral. These typically include hormone tests during your cycle to confirm egg production, tests to check the fallopian tubes are open, and a semen analysis for your partner. Additional tests may be needed and will be fully discussed with you.

2. ***First appointment:***

   At this visit, we will review your history and test results to confirm that SIUI is suitable for you. We will also explain the treatment process, your chances of success, and any potential risks.

   The following will be discussed with you during your first appointment

a) Confidentiality:

Under the terms of the Human Fertilisation and Embryology (HFEA) Act we cannot discuss details of your treatment with anyone outside of our unit, including your GP or referring doctor.

We can only share your information if you provide written “consent to disclosure.” We will discuss this with you at your first appointment and confirm whether you are happy to share any details and with whom. This usually includes your GP, referring doctor, and others involved in your care.

During your treatment, we are legally required to collect certain information and send it to the HFEA. This includes personal details such as names, dates of birth, and some medical information, including the cause of fertility problems (if relevant). We also record details of treatments and outcomes, such as pregnancies and births.The HFEA keeps this information because it must inform adults, if they ask in the future, whether they were born through licensed treatment (IVF or treatment with donor sperm, eggs, or embryos).

With your consent, this data may also be used for approved medical and non-medical research to help study the health and wellbeing of parents and children after treatment. All research must be approved by the HFEA before the data can be used.

Consent:

Before treatment begins, we must get your written "informed" consent. This means you have been given information about the procedures, had the chance to receive counselling, and had time to consider your decision. You can change or withdraw your consent at any time.

If you are providing sperm for IUI, you will be asked if you want to consent to storing sperm for your partner's future treatment. If you choose to store, you may also want to complete additional consent forms for the sperm to be used for other treatments, such as IVF. We will discuss these options with you during your appointment with the nurse.

b) **"Welfare of the Child"**

We are required by law to consider the "Welfare of the Child" before offering treatment. Further information about this can be found in our leaflet titled *"Welfare of the Child – Information for Patients".*

3. ***Nurse Consultation:***

If you wish to go ahead with SIUI, an appointment will be arranged with a fertility nurse specialist to discuss the treatment the timetable for treatment, be given injection training and arrange a date to commence treatment.

4. ***Preconceptual advice***

In order to maximise the chances of conception, you should consider the following aspects of preconceptual care.

- **Folic acid:** Taking folic acid can reduce the risk of spina bifida. You should take 400 micrograms of folic acid daily for three months before trying to conceive, and continue until the 12th week of pregnancy.There are special pregnancy supplements that include other vitamins, which may be helpful. We recommend a combination of folic acid and vitamin D, with a suggested dose of 10 micrograms of vitamin D.

- **Rubella**: you should have had your immunity to Rubella (German Measles) confirmed by your GP ahead of your referral.

- **Cervical Smear:** You should make sure that you are up to date with your cervical screening

  Weight: Women should have a weight within normal range before commencing treatment. NHS funding is only available to women with a BMI of 19-29.

- **Smoking.** If either of you smoke you are advised to stop before treatment, to avoid potential adverse effects on a pregnancy. In addition, NHS funding will not be available to patients who smoke in most areas.

  Sheffield Teaching Hospitals operates a strict no smoking policy on site.

- **Alcohol**: The Department of Health currently recommends alcohol should be avoided for all women who are pregnant or trying to conceive.

- **Medications**: All medications should be disclosed prior to starting treatment to ensure they do not interact with any of the medications we will give you, that they will not harm a pregnancy, nor have an adverse effect on your semen analysis.
  Please do not take any herbal or "alternative" remedies without checking with the clinic first.

How many treatment cycles will I have?

A "course" of two or three cycles are usually recommended. However, this will be agreed before you start treatment and may depend on the funding available. If pregnancy does not occur, your treatment cycles will be reviewed and it may be suggested that you move to other treatment options such as *in vitro* fertilisation (IVF).

What happens in a treatment cycle?

The following section describes the stages in an IUI treatment cycle

1. Stimulation of the ovaries

The first step in IUI is to stimulate the ovaries to produce one or more eggs using a hormone called follicle stimulating hormone (FSH), which is the same hormone the body produces naturally. Eggs develop inside small fluid-filled sacs in the ovaries called follicles. These follicles grow to about 16–20 mm before the egg is mature and can be seen on a vaginal ultrasound scan. Follicle growth is monitored with regular ultrasound scans and blood tests to measure hormone levels (oestrogen). If more than three follicles develop, the risk of multiple pregnancy increases and the cycle may be cancelled or adjusted.

There are different types of FSH medications, such as Gonal-F and Merional, which are given by a small injection under the skin.

2. Ovulation

Ovulation is timed by measuring a hormone in the blood called Luteinising Hormone (LH). This hormone is released from the brain about 36–40 hours before the egg is released. If this hormone surge is not detected but the follicles are ready, ovulation may be triggered with an injection of chorionic gonadotrophin (CG), which acts like LH.

3. Sperm collection and insemination

On the day of treatment, the male partner should attend the unit in the morning at the agreed time to provide a sperm sample. For best results, we recommend avoiding sex for two days before producing the sample.

The sperm is then prepared, which can take 2–3 hours. The intrauterine insemination (IUI) is carried out after this.

You will be asked to sign another form confirming the number of follicles seen on your last scan and that you understand the risk of multiple pregnancy.

Isemination usually takes place in the Assisted Conception Unit theatre, and your partner is welcome to attend. A doctor or nurse will perform the procedure. You will lie on a couch while a speculum is gently inserted into the vagina, similar to a smear test. The cervix is cleaned, and the prepared sperm is slowly placed into the uterus using a soft plastic tube. The procedure is quick, simple, and usually painless.

You may go home after insemination. You will be advised whether further intercourse may improve your pregnancy chances.

The procure is the same if using donor sperm with the exception requiring a semen specimen from your partner.

4 Pregnancy test

We will arrange a blood test 14 days after IUI or intercourse to check for pregnancy. This test measures a hormone called human chorionic gonadotrophin (HCG).This test is still needed even if you have started bleeding, as it is still possible to be pregnant.

Results will be given to you by telephone later the same day.

What happens if I have a positive result?

1) Further pregnancy tests:

If the test is positive, you may be asked to return for a further blood test to ensure the hormone level is progressing.

2) Pregnancy scan:

You may be asked to attend for a scan 4–5 weeks after insemination (around 6–7 weeks of pregnancy). This scan checks that the pregnancy is in the correct place, is developing normally, and whether it is a single or multiple pregnancy.

At this stage, the pregnancy should be visible in the uterus as a small fluid-filled sac with a tiny fetus, and a heartbeat should usually be seen. If any concerns are found, we will discuss them with you and arrange further checks if needed.

We will show you the scan on the screen and give you a photo. You will also receive a summary form to take to your GP so you can book your antenatal care. It is important to register with your GP or midwife by 9 weeks of pregnancy so that early screening tests can be planned.

3) Pregnancy outcome:

The pregnancy outcome form you receive after your first scan must be returned to us so we can record the result. This helps us keep accurate statistics and is required by law, as we must report all outcomes to the HFEA. Please return the form within 4 weeks of delivery.

If you have a miscarriage, please still return the form. We understand that not all pregnancies end as hoped, but we need to know the outcome in every case.

We appreciate that a negative outcome can cause considerable emotional distress, so our nurses and counsellors are on hand to offer emotional support both during and after treatment. Please ring us on 0114 2268050 to make an appointment.

What happens if I have a negative result?

A negative result on day 14 means that pregnancy has not occurred. We will discuss your result on the telephone and make plans for a follow up appointment.

Issues to Consider with SIUI

What happens if my ovaries don't react to the drugs as expected?

We aim to give the right dose of hormone (FSH) so your ovaries produce the best number of mature eggs. However, some women are very sensitive to FSH and produce too many follicles, while others may not respond enough and produce too few or none. In these cases, SIUI may not be the best option for achieving pregnancy. Instead of continuing with SIUI for many months, we will arrange an appointment with a doctor to discuss other treatment options. In most cases, IVF may be recommended.

What is the chance of success?

Your personal chance of success may differ from the overall success rates. We will discuss this with you before treatment.

The main factor affecting success is the woman's age, as chances decrease as age increases. Other factors that can reduce success include how long you have been trying, the number of previous attempts, and semen quality. Women who have had previous pregnancies generally have a higher chance of conceiving.

Overall, the success rate for SIUI is about 15–20% live births per treatment cycle (15–20 out of 100 cycles).

Is there an increased risk of multiple pregnancy?

Approximately 10% of all SIUI pregnancies will be multiple pregnancies.

While the prospect of twins may seem attractive, there are risks associated with multiple births. Research has shown multiple births can lead to much higher risk of:

- Complications during pregnancy, including miscarriage
- Premature birth and low birth rate
- Disability
- Death of infants within 28 days of birth (known as neonatal death)

Multiple births can be risky for the babies and can also place a heavy burden on parents, including financial strain, emotional and physical exhaustion. If you are pregnant with more than one baby, you are more likely to need a longer hospital stay. These challenges can reduce the joy of parenthood. For more information, www.oneatatime.org.uk

For this reason, we monitor your cycle closely and will not proceed if it puts you at risk. If too many follicles develop, we will discuss whether to cancel the cycle. In the very rare event of a pregnancy with three or more babies, we may discuss fetal reduction. This is a very serious and distressing procedure and is only considered in exceptional cases.

Are there any other risks of an SIUI pregnancy?

All pregnancies carry some risk, and assisted conception treatments have a slightly higher chance of miscarriage. There is also a risk of pregnancy occurring in the fallopian tube (ectopic), which is why early scans are important to confirm the location and heartbeat.

There is a very small chance of a pregnancy developing in both the uterus and the fallopian tube at the same time, called a heterotopic pregnancy. This is rare in natural pregnancies (about 1 in 10,000) but slightly more common with IUI. If you are pregnant and experience pain or bleeding early on, contact us even if a scan has shown a pregnancy in the uterus.

There is a small risk (about 2%) of a baby having an abnormality, and SIUI does not reduce this risk. However, the chance is no higher than with natural conception.

Once the effects of multiple pregnancy are taken into account, the progress and outcome of an SIUI pregnancy are similar to those of a natural pregnancy.

What is OHSS?

The hormone injections used to stimulate the ovaries can sometimes cause the ovaries to overreact, leading to a condition called ovarian hyperstimulation syndrome (OHSS).
Severe OHSS affects less than 1% of women undergoing treatment, but it can be serious and, if untreated, can be life-threatening.

The ovaries become enlarged and cystic, and fluid can leak into the abdomen, causing swelling and discomfort. This fluid loss can lead to dehydration, which may increase the risk of blood clots and affect the kidneys and other organs. Most cases are mild to moderate, but a few can

become severe if not treated. If a patient with OHSS becomes pregnant, pregnancy hormones can temporarily worsen the condition.

Once your treatment cycle begins, it is important to know the symptoms of OHSS and how to contact the medical team if needed.

Why does OHSS occur?

The condition occurs when there are high levels of oestrogen and the ovaries produce too many follicles. Careful monitoring can predict some of these women and allow treatment cycle s to be modified or cancelled to prevent the condition occurring.

Who is at risk of OHSS?

Any woman undergoing ovarian stimulation is at risk, but some are more susceptible than others including younger women and those with polycystic ovaries. We tend to use lower doses of medication in these women to minimise the risk.

When does OHSS occur?

The condition only occurs **after** the injection of HCG (late night injection).

What are the symptoms of OHSS?

The symptoms of OHSS are:

Mild form:	**Moderate form:**	**Severe form:**
• Abdominal swelling • Lower abdominal pain • Feeling sick	• Diarrhoea • Vomiting • Dark strong urine	• Persistent vomiting - unable to tolerate any fluid orally • Gross abdominal swelling resulting in shortness of breath

You will not necessarily develop all the symptoms at the same time

What should I do if I think I have OHSS?

You are advised to contact us if you develop **any** of the above symptoms or feel unwell.

It is important to drink plenty of fluids to avoid becoming dehydrated. Dark strong urine is an indication of dehydration. You can take Paracetamol (maximum 8 tablets in 24 hours) for pain relief. Mild hyper-stimulation may be relieved by these simple measures, but you should contact us for advice.

Who should I contact?

Since OHSS is uncommon, your GP or local hospital may not be used to dealing with this condition. Therefore, you are advised to contact us directly.

Out-of-hours you can be put through to a nurse from the unit from the main hospital switchboard (0114 271 1900).

What happens if I produce too many eggs?

Even with close monitoring, some women may produce too many follicles from the hormone stimulation. This increases the risk of a multiple pregnancy. For women under 39, we usually do not proceed with IUI if there are more than three mature follicles, although this is decided on a case-by-case basis.

If there are many follicles, we will discuss whether to cancel the cycle. In some cases, it may be possible to reduce the number of follicles before insemination, a process called follicle reduction. The decision depends on the number of follicles and your individual situation.

Where can I get further information?

The staff of the clinic are always available should you require any further information, this includes 24 hour out-of-hours cover should you have a more serious problem or query about your treatment cycle.

A list of national and local Infertility Support groups is available in the Centre. We also keep a small library of books and videos, which you are welcome to borrow. We can also provide you with a list of other books or Internet websites that you might find useful.

Further information can be also obtained from the Human Fertilisation & Embryology Authority (HFEA): www.hfea.gov.uk

Stimulated Intra Uterine Insemination (SIUI)

Day 1

Ring the unit (0114 226 8050) on the first day of your period. This enables us to check that all the appropriate arrangements for your treatment have been made

You will be asked to attend on day 3 for a scan and possibly a blood test.

If day 1 is a Friday, you will be asked to attend on Saturday (day 2). If day 1 is a Sunday, please leave a message on the voicemail saying that you will be attending the following Tuesday for your baseline scan and blood test, or ring again on the Monday.

Day 3

You will have a vaginal scan to assess your ovaries and uterus to check if you are ready to start treatment. Blood tests may be performed if required.

You will be asked to collect your prescription from the Royal Hallamshire Hospital Pharmacy and pay normal prescription charges.

If you are a self-funding patient treatment charges are required to be paid before treatment starts. One of our administration team will meet with you at this appointment to deal with payment.

Day 3 (Day 1 of FSH stimulation)

You will start your injections of FSH at the dose prescribed by the doctor.

The injections are given once a day in the evening. It is best to ensure that they are all given at roughly the same time each day.

Day 8 of Stimulation

You should continue on the same dose of FSH and return for a scan on the 8th day of stimulation, to monitor the response of the ovaries.

Please avoid unprotected intercourse up to this point of your cycle.

You should telephone the results line (0114 226 8066) between 14:30 -15:30 for the results. Depending on the results of the scan, we may advise you to change the dose of FSH.

Further monitoring

Further blood tests and scans may be done on a daily or alternate day basis until the follicles are mature, frequency will depend upon your response.

You will be ready to have your insemination arranged usually when up to three follicles between 16-20mm in diameter are seen on scan. You will be given an appointment time usually 38 hours after the final CG injection

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Bringing hope to life

Stimulated Intra Uterine Insemination (SIUI)

Sheffield Teaching Hospitals NHS
NHS Foundation Trust

What to do in an emergency

'We provide emergency cover for patients
24 hours a day, 365 days a year'

Outside our opening hours, telephone calls to the Centre will be answered by voicemail. Messages may be left on this service and will be answered the next working day. The message will also give details of the emergency out-of-hours contact.

If you need urgent medical advice out-of-hours, a member of the nursing or medical staff is **always** available by calling the Royal Hallamshire Switchboard:

Tel: 0114 271 1900

Please only use this if your need is genuinely urgent and needs immediate response.

Jessop Fertility
The Jessop Wing
Sheffield Teaching Hospitals NHS Trust
Tree Root Walk
Sheffield
S10 2SF
www.jessopfertility.org.uk

Useful phone numbers:

Reception: 0114 226 8050

Nurses: 0114 226 8066

EPAU: 0114 226 8379

Stimulated Intra Uterine Insemination (SIUI)

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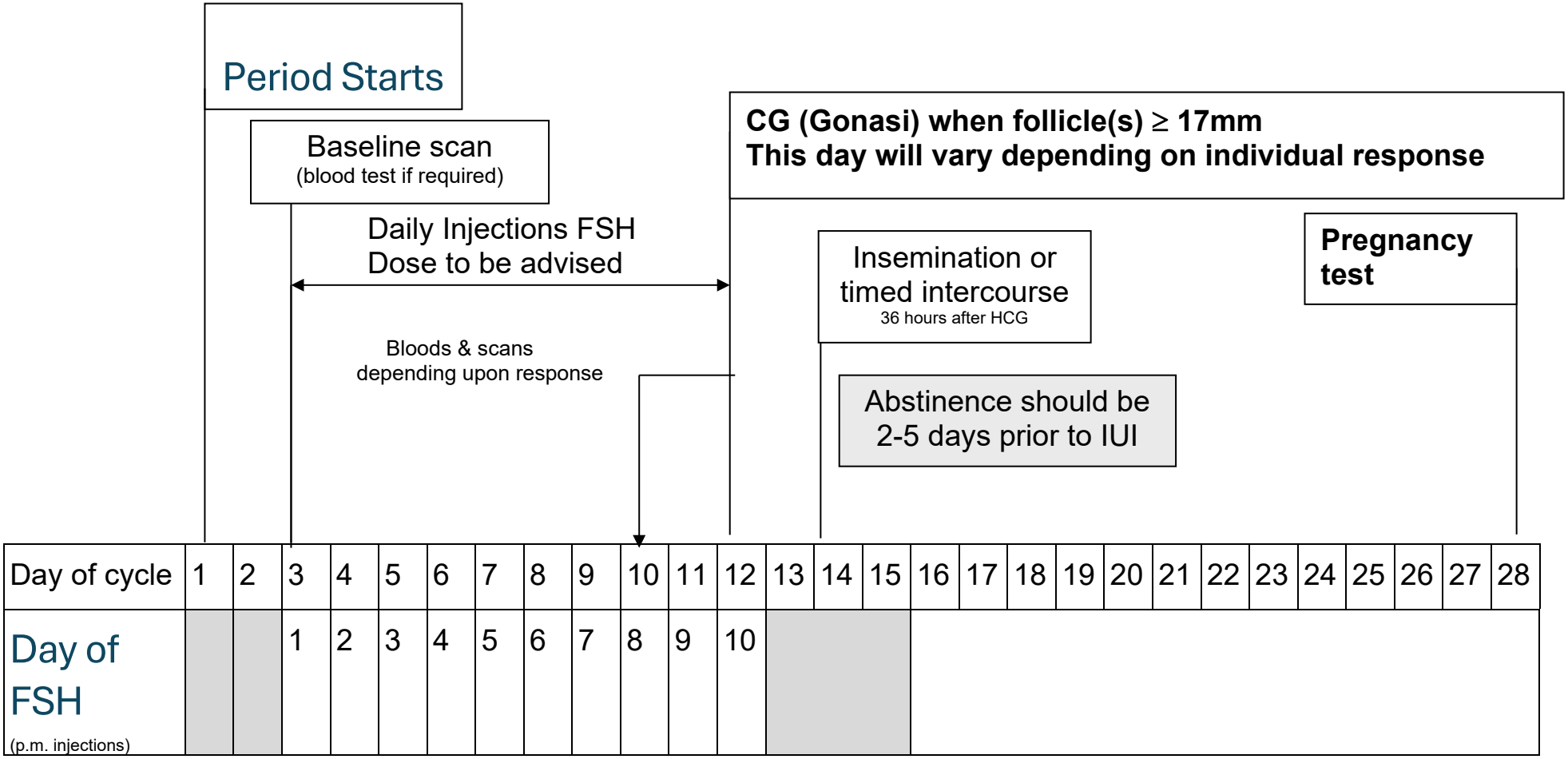
NHS Foundation Trust

This chart is intended as a guide only and treatment may be altered according to your response



Bloods and Scans 0800-0930 (closed Sundays)
Results Line 01142268066 1400-1530

NB: Please do not have unprotected sexual intercourse until your scan on day 10. You may over-respond and unprotected sex may result in a multiple pregnancy (eg. triplets). After this time we will advise you accordingly