

Centre for Reproductive Medicine

Intra-uterine Insemination (IUI) – Information & Instructions for Patients

This treatment is commonly recommended as the first treatment for couples who have “unexplained infertility”. It may also be used to enhance the chances of a pregnancy in patients undergoing treatment with donor sperm. It may also be advised in cases of infertility where the only identifiable problem is a minor degree of endometriosis.

Definition Intra Uterine Insemination (IUI) is the artificial insertion of sperm directly into the cavity of the womb (uterus). The sperm may be either partners or donor. The sperm is always “prepared” before insemination. The preparation usually involves the sperm “swimming” up from a pellet into culture medium to form a clean concentrated suspension of moving sperm (only the best swimming sperm swim up into the culture medium). This treatment is usually coupled with enhancement of ovulation by using ovarian stimulation drugs.

The purpose of this treatment is:

1. To increase fertility by enhancing ovulation increasing the number of eggs which are produced more than would have been the case naturally.
2. To time when the eggs are ripe by scanning the ovaries.
3. To prepare the sperm by wash, centrifugation and swim up into culture medium, thus maximising the quality of the inseminated specimen and - hopefully - its fertilisation potential.
4. To inseminate the sperm directly into the uterine cavity at a precisely determined time to ensure the sperm is close to the egg at the time it is released, and to by-pass any possible hostile effects of the cervical mucus on the sperm.

IUI with ovarian stimulation versus IUI without ovarian stimulation

It is common practice to combine artificial insemination of prepared sperm into the uterine cavity (IUI) with ovarian stimulation (COS) in order to increase the effectiveness of the IUI treatment. The current guideline from the National Institute of Clinical Excellence is to recommend 6 cycles of IUI without ovarian stimulation to reduce the risk of multiple pregnancy. NICE acknowledge that the success rates of IUI without ovarian stimulation are less than IUI with ovarian stimulation. It is our local preference to provide IUI with ovarian stimulation in order to increase the chance of a pregnancy and because

our multiple pregnancy rates over the years using this technique are, we believe, acceptable.

Before treatment can start There are several important conditions which must exist before we can consider you for this treatment:

- **At least one Fallopian tube must be normal**
- **The ovaries must be able to produce eggs**
- **The sperm must be of sufficiently good quality and quantity to undergo preparation with a reasonable likelihood of fertilisation being achieved**

Pre treatment information A nurse will see both partners (if applicable) for an information session. This will last for approximately 45 minutes to sign consent forms and complete any outstanding investigations.

How likely is this treatment to succeed? The chances of a pregnancy resulting are between 7 and 10 % per treatment cycle. The chances will vary according to the individual circumstances of the couple. For example the chances will be increased if the couple has had a pregnancy before or if the age of the female is under 38.

Are there any risks with this treatment? This is relatively straightforward treatment and the risks are very small. There are, however, risks in anything that you do. The main risks with this treatment are:

- **Risk of ovarian hyperstimulation syndrome (OHSS).** When any drugs are used to stimulate development of eggs there is a risk of this condition. Because of the relatively low doses of drugs used in this treatment the risks of developing OHSS are very small. This condition is discussed in more detail elsewhere.
- **Multiple Pregnancy.** This treatment depends to some extent for its success on the increased number of eggs that are formed. We will monitor you to assess this response. Fertilisation and conception in this treatment occurs naturally in the Fallopian tube - therefore we have no control once the eggs are released and insemination is carried out.

The treatment involves the following stages:

1. **Clomifene** (50 mg daily from the second day of a period to day 6) **and injections of Gonadotrophins (e.g. Menopur)** on days 5,7, 9 and sometimes 11 of the cycle
2. **Monitoring** to assess the development of the follicles within the ovaries. Scans are normally carried out on days 5 and 11 of the treatment cycle and sometimes day 13. If indicated, additional scans will be carried out as necessary. We assess the endometrial (womb) lining as in a small proportion of people Clomifene can lead to a thinner endometrium than we would like.

3. **A further injection (HCG e.g. Ovitrelle or Pregnyl)** is given to cause the eggs to be finally matured and released at a predictable time.
4. **The sperm** The partner produces a sperm specimen on the day of the insemination. We strongly recommend a 2-3 day period of sexual abstinence prior to producing a specimen.
5. **The insemination** is carried out some 40 hours after the HCG injection. This involves attending the clinic. A speculum examination is carried out to visualise the cervix. A fine catheter is passed through the cervix into the womb. The sperm specimen is inseminated.

The procedure takes about 10 minutes. No anaesthetic is required - the procedure is similar to having a cancer smear test carried out.

There is no drug treatment after the insemination.

Cancellation of treatment In this process fertilisation is taking place naturally and if too many eggs develop and release there is a possibility that a number of them will fertilise. In this situation a multiple pregnancy with several babies may be produced. To avoid this consequence we have set criteria for cancelling the treatment if more than a certain number of follicles develop.

In these circumstances we will advise you against going through treatment and - however unlikely a natural pregnancy may seem to you - advise you against having intercourse without using contraception. You will also be asked to sign a form indicating that we have advised you of this risk.

How many treatments will be carried out? For the treatment of unexplained infertility 3 cycles of treatment are normally carried out and then the situation reviewed. Subsequent advice will depend on a number of factors, not least of which are the age of the patient and the length of time that you have been trying to become pregnant. Normally IVF will be advised after three failed IUI treatments.

Treatment Plan

Plan: When your period starts

- Day 1 is the first day of the period (full red bleeding all day)
- Start Clomifene 50 mg (1 tablet) on the second day of the period
- Telephone the CRM to book a scan on day 5 of the period / cycle
- Take the clomifene 50 mg each day for 5 days
- Instructions on when to take Menopur injections will be given after the scan
- Scan on day 11

- Instructions will be given on the basis of the day 11 scan as when the final injection of hCG will be given or whether any further scans and injections are needed.
- IUI Treatment likely day 13 -15

If your IUI treatment is to be planned any differently, the nurse will give you your own individual instructions

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