



Royal College
of Nursing

Performing intra-uterine insemination and embryo transfer

RCN guidance for fertility nurses

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**This guidance has been produced by the
Royal College of Nursing Fertility Nurses Group**

Introduction

This guidance has been produced by the RCN Fertility Nurses Group and is aimed at fertility nurses who carry out embryo transfer and intra-uterine insemination (ET/IUI).

Technological developments in fertility treatment have developed rapidly over recent years. Fertility nursing practice varies according to the type of treatment centre but the nursing role has developed with nurses now performing ET/IUI.

As a fertility nurse you are professionally accountable, regularly reviewing your work and maintaining your competence is paramount. You must ensure that you have the appropriate training and experience to carry out this procedure, that you work within the Human Fertilisation and Embryology Authority (HFEA) regulations and that you follow Nursing and Midwifery Council (NMC), RCN and NHS trust protocols. This RCN guidance outlines some of the key issues that you need to be aware of – not least the importance of good communication with patients and making sure that their experience before, during and after this procedure is a positive one.

Professional accountability

The Nursing and Midwifery Council's (NMC) Code of Professional Conduct (2002) states that 'as a registered nurse, midwife or health visitor, you are personally accountable for your practice'. In particular you must, 'maintain and improve your professional knowledge and competence' and 'acknowledge any limitations in your knowledge and competence and decline any duties or responsibilities unless able to perform them in a safe and skilled manner'.

Under no circumstances should you undertake a procedure unless you are competent to do so. It is your responsibility to inform your manager if you haven't had appropriate training.

The nursing team should ensure that it is meeting current legislation, policies and protocols set out by the NMC, HFEA, RCN and NHS trust board. Practitioners within the NHS and the independent sector should comply with the policies set by the fertility unit management. The individual nurse should ensure that they have indemnity insurance from a professional organisation such as the

RCN, and that their employer gives vicarious liability to its employees.

Requirements of the role

In order to perform intra-uterine insemination and embryo transfer you must:

- ❖ be a nurse or midwife on the NMC register with experience in women's health
- ❖ have achieved competent practice in all appropriate aspects of assisted reproductive techniques
- ❖ have achieved a competent level in ultrasound scanning (with appropriate training records and maintenance of clinical skill, for example, 15 to 20 per week)
- ❖ be able to demonstrate knowledge of pelvic anatomy and physiology and pathology of the pelvic structures
- ❖ understand the preparation of the semen sample and be able to follow laboratory guidelines
- ❖ observe and work within the Human Fertilisation and Embryology Authority (HFEA) regulations
- ❖ undertake all trust/unit courses for

the maintenance of safe practice including:

- IV drug administration
- cannulation
- cardio-pulmonary resuscitation.

Preparing the patient – your role

As a fertility nurse you are in a unique position to support patients through, what can be, a very difficult and stressful situation. The Human Fertilisation Authority and Embryology Act 1990 requires that patients seeking treatment for fertility problems are offered counselling on the implications of treatment.

Factual information should be provided to help infertile couples to make their own decisions about how to proceed. Some couples can be desperate for information about their condition and treatment options. Therefore, fertility nurses should be well informed on current research. Many nurses decide to undertake further study in counselling and ethics. Therapeutic counselling should be provided by someone not directly concerned with the procedure.

By law all HFEA licensed clinics must offer implications counselling before a patient consents to treatment. Prior to treatment all patients should have a full consultation with the designated doctor or nurse and have completed all unit and HFEA consent forms and recommended screening.

Currently there are three types of consent involved in HFEA licensed treatment:

- ❖ consent to use and storage of eggs, sperm and/or embryos
- ❖ consent to treatment
- ❖ consent to disclosure of information.

Consent must also be ‘informed’. This means that you must provide couples with suitable opportunity to receive proper counselling about the implications of storage or any treatment that they are consenting to. You must also provide information about the processes and procedures involved. Couples should have time to reflect on this information before signing the consent forms.

Suitability for the procedure

It is essential that patients understand

what is going to happen to them during the procedure and that they are aware of the risks of ET/IUI, including the possibility of a multiple pregnancy. You should take a full medical history of the patient and carry out a baseline ultrasound scan and uterine assessment. This will help determine if there are any abnormalities that may interfere with the procedure. It is also important to establish that the cervical canal can be cannulised.

Follow training protocols

Each unit should hold protocols produced by the team for all procedures performed by practitioners. The protocol should cover: the location; equipment required; description of the procedure that each practitioner should adhere to, and should always be regularly updated. All practitioners should perform trial procedures prior to commencing treatment and maintain records of their practice. Supervision should be mandatory until the individual has been assessed as competent by a senior nurse or clinician. An ultrasound can be used to ensure that catheters are in the correct position within the uterus and

is a suitable aid prior to completion of training. You must audit your practice on a monthly basis and should keep accurate records of this.

The procedure

The patient should arrive 15 minutes before the procedure. At this point check that all the necessary consents have been obtained and are completed in the notes.

The room should be prepared with the appropriate equipment, following the unit's protocol. Patients may be required to have a semi-full bladder. Both yourself and the scientist must check the patient's details with the patient before starting the procedure and the notes must then be signed. Details of the sperm sample/embryos are disclosed to the patient and, in the case of embryo transfer, how many are to be inserted. The patient and her partner should have received counselling which covered the risks of the procedure and the potential for a multiple pregnancy. In most instances, unless clearly detailed in the notes, two embryos are used. Gamete identification must follow laboratory protocols and HFEA guidelines for witnessing all procedures in order to

ensure safe practice.

Give the patient time to get comfortable on the bed before you start the procedure. Carefully insert a warmed sterile speculum into the vagina. Make sure the cervix is clearly sited, cleaned and dried – removing all cervical mucus (for embryo transfer mucus extractors may be used). When ready, the scientist will load up the catheter of choice with sperm/embryos and pass it to you. Pre-treatment cervical assessment will help you to pass the catheter through the cervix so that the tip of the catheter is appropriately situated mid cavity. Then, when the catheter is in situ, push the syringe until the appropriate markings are in the correct position and the sperm/embryos are expelled into the endometrium. The catheter is left in place according to your unit's protocol and is then slowly removed for the scientist to check that all of the gametes have been ejected.

If any problems occur when passing the catheter it should be given back to the scientist to place into the incubator. Unit protocols must be followed when encountering convoluted canals or tight internal cervical os, which may include changing catheters. If you are unable to

pass the catheter then the duty doctor should be called. You should be aware of the signs of vasovagal shock which would require emergency procedures if encountered. At all times, reassure the patient and her partner and keep them informed of events taking place.

Abdominal scanning for embryo transfer

- ❖ Ensure the abdominal probe is working on the ultrasound scanning equipment.
- ❖ Apply echo jelly to the abdomen to help transmission of the ultrasound beam.
- ❖ It may be necessary to reduce the frequency of the probe to enhance the image if it is hazy due to the size of the patient.
- ❖ Ensure the uterus is on the middle of the screen and enlarge the image either with the depth button or the pan-zoom to enhance image quality.
- ❖ Ensure the woman has a full bladder – this will improve the visibility of the pelvic organs.
- ❖ The bladder should be at the top of the screen.
- ❖ Scan the uterus in longitudinal plane with the fundus of an anteverted uterus on the left side of the screen and vice versa for a retroverted uterus – fundus on the right.
- ❖ Ensure the endometrial cavity can be visualised from the fundus to cervical cavity so the catheter is visualised through the entire length of the cavity.
- ❖ Ensure the tip of the catheter is at least 1cm away from the fundus of the cavity.

After the procedure

When the procedure is completed the patient should be made comfortable and the procedure fully documented in the patient's notes. The nurse should explain the prescribed luteal support (generally, patients take cyclogest pessaries for 14 days until the pregnancy test) and appropriate administration. Provide the patient with written information about the possible complications that may occur (such as ovarian hyperstimulation) and the medical support available. Follow-up appointments should be made for the end of the cycle so that the patient can find out the result of

the pregnancy test. Following the results, appropriate counselling can be arranged. If the result is positive, information and advice on early pregnancy management should be supplied.

Further reading

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Nursing and Midwifery Council (2002) *Code of Professional Conduct*. London: NMC

Sinclair L, Morgan C, Lashen H, Afnan M and Sharif K (1998) Nurses performing embryo transfer: the development and results of the Birmingham experience. *Human Reproduction* Vol 13 p 699-702

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Royal College of Nursing (2004) *Performing ultrasound-guided oocyte retrieval. RCN guidance for fertility nurses*. London: RCN. Publication code 000 425

Useful addresses

National Institute for Clinical Excellence

The National Institute for Clinical Excellence (NICE) is part of the NHS. It is the independent organisation responsible for providing national guidance on treatments and care for people using the NHS in England and Wales. Their guidance is intended for health care professionals, patients and their carers to help them make decisions about treatment and health care.

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The Human Fertilisation and Embryology Association

The HFEA is a non-departmental Government body that regulates and inspects all UK clinics providing IVF, donor insemination or the storage of eggs, sperm or embryos. The website contains HFEA guidance, plus has a search facility to find your local clinic, and has information for both patients and donors.

Human Fertilisation and Embryology Authority

21 Bloomsbury Street
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Website: www.hfea.gov.uk

Glossary of terms used in fertility treatment

Artificial insemination with husband sperm (AIH)

Prepared sperm are placed at the entrance of the cervix at the time of ovulation.

Artificial insemination with donor sperm (AID)

Similar to AIH but using donated sperm.

Gamete intra fallopian transfer (GIFT)

Similar to IVF but harvested eggs are placed in the tube with prepared sperm where fertilisation should occur.

Implications counselling

A counsellor can talk to a patient about the treatment so that they understand exactly what it involves and how it might affect them and those close to them. This is important if the patient is considering treatment with donated sperm, eggs or embryos, or surrogacy arrangements – all of which involve complicated issues, not least the legal implications.

Intra-uterine insemination (IUI)

Drug stimulation is used to promote follicular growth of one to two follicles. Prepared sperm are then transferred into the uterus following the induction of ovulation.

In vitro fertilisation (IVF)

Literally means fertilisation ‘in glass’. Eggs are removed from the ovaries and fertilised with sperm in a laboratory dish before being placed into the woman’s body.

Intracytoplasmic sperm injection (ICSI)

This involves injecting a single sperm into the harvested egg. This is a treatment for male infertility that is frequently used by cancer patients.

Ovulation Induction (OI)

This is a drug treatment to establish ovulation in women who do not ovulate regularly. Women must be carefully monitored during a treatment cycle to avoid the risk of multiple pregnancy.

Surgical sperm retrieval (SSR)

Sperm are retrieved from testicular tissue and then used to fertilise an egg with ICSI.



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