

Training Module in Assisted Conception



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Introduction

Assisted conception is a complex area of clinical practice, integral to the management of subfertile couples, with a wide spectrum of clinical presentations, diagnoses and treatments. Responsibility for the clinical care of couples undergoing IVF and related techniques is subject to statutory regulation, and its use requires a high level of expertise. This training programme, devised by the British Fertility Society, is designed to assist clinical trainees and nurses (reference to trainee within this document refers to both clinical and nursing staff) in developing and consolidating their expertise in assisted conception.

This course complements the BFS/RCOG advanced training skills module on Subfertility and Reproductive Endocrinology, and should be undertaken in conjunction with the British Fertility Society training modules on Embryo Transfer, Pelvic Ultrasound and Management of a Fertility Service.

Once trained, the trainee should have:

- acquired an **understanding** of:
 - i. the physiology of the ovarian cycle
 - ii. the physiology of oogenesis and spermatogenesis
 - iii. the physiological basis of controlled ovarian stimulation
 - iv. the clinical aspects of assisted conception treatments
 - v. laboratory aspects of IVF and embryo development including sperm preparation
 - vi. the psychological factors affecting the couple during ART
 - vii. the specific issues relevant to the use of donor gametes and embryos
- developed the **capacity** to:
 - i. counsel a couple undertaking IVF treatment
 - ii. facilitate good communication between patients and staff involved in ART
 - iii. complete the necessary documentation relevant to ART procedures
- acquired **experience and knowledge** of:
 - i. relevant administration and management skills, including clinical governance
 - ii. teaching
 - iii. legal and ethical issues including the Human Fertilisation and Embryology Act
 - iv. epidemiology, statistics, research and audit

Entry criteria

The following criteria must be satisfied:

- The trainee must already be working in the field of infertility and reproductive medicine
- There must be dedicated training time available
- The trainer must be working within a tertiary centre offering the whole spectrum of assisted reproductive techniques (ART)

Registration with the British Fertility Society for this training module can only be made when the above criteria are met.

Training programme components

The following are essential components of the training programme, and all of them have to be completed:

- Trainees should register at the commencement of the training module with the BFS, and the trainer should support the application for training
- A named trainer must sign an educational contract confirming that he / she is able and willing to provide the training contained in the module. The trainer must be skilled in the management of the infertile couple and have expertise in assisted conception. The trainer will agree to supervise the trainee throughout the module. Occasionally and because of necessity some sessions of training may be conducted under the supervision of professionals other than the trainer. It is the responsibility of the trainer to ensure that the professional to whom the duty of training is delegated is sufficiently competent, willing and able to teach the trainee
- The trainee must attend regular assisted conception clinics during training and a log kept relating to experience gained
- The trainee must attend the approved BFS theoretical course on Assisted Conception. The course will complement the essential knowledge component of training for this module. The course must be attended during the time of training and when the logbook is being completed
- The trainee should attend regular multidisciplinary meetings and educational activities within the department where the training is done

Training will be deemed to be complete when all the components have been completed to the satisfaction of the trainer and the study day has been attended. The objective structured assessment of technical skills (OSATs) will be completed by the trainer in conjunction with the trainee. At that point all documentations will be sent to the BFS for approval and a certificate of completion will be sent if the training module has been completed successfully.

The logbook (guide to learning)

This logbook defines the skills required for the management of the infertile couple using assisted conception. Completion of the logbook will allow the trainer and trainee to monitor progress and identify learning needs over the course of training. It is important to note that the logbook is a record of **competence** as well as **experience**. The trainer and trainee will review the progress of training every month. Competence will be documented by the trainer signing the appropriate sections of the logbook and the OSATs. Progress will be documented through the trainer signing off the appropriate sections of the logbook when knowledge has been acquired and independent clinical competence reached, as appropriate. **It is imperative that all trainees appreciate that their progress has to meet standards that satisfy the trainer. At the end of the training programme, the trainer has to certify that the skills attained by the trainee are to his / her satisfaction.**

Application for training centre recognition and trainer's contract

To be eligible as a training centre in Assisted Conception the following criteria must be met:

- The centre should provide a service for the management of patients with infertility problems, within an appropriate setting where both male and female partners are seen together and investigated fully
- The centre should have an adequate clinical workload incorporating a comprehensive range of disorders associated with infertility
- The centre must have a HFEA license (or equivalent if based outside the UK)
- The centre should have access to appropriate laboratory facilities to allow appropriate investigations of male and female patients
- The centre should have access to daily ultrasound investigations for monitoring women undergoing controlled ovarian hyperstimulation

- The centre should provide an assisted conception service offering in excess of 250 fresh IVF cycles per year. Cryopreservation of gametes and embryos and a donor gamete programme should be available
- The centre should have regular multidisciplinary meetings as well as an active training and education programme
- The trainer must agree to carry out monthly appraisal of the trainee's progress and records kept of such meetings

Trainee application for registration for the training module

Trainees seeking to register for training in the Assisted Conception module should:

- Be a member of the British Fertility Society
- Undertake training over an agreed period of time, no less than six months and no more than 12 consecutive months in a unit recognised as a 'Training Centre' by the Society, under the guidance of a recognised trainer. Should the trainee require more than 12 months they should write to the chairman of the BFS Training Subcommittee explaining the reason for extending the training period and to agree a suitable time frame for completion.
- Provide payment of £120 upon application payable to the British Fertility Society

Syllabus

Aims of training:

- The trainee should acquire an understanding of:
 - i. The physiology of the ovarian cycle
 - ii. The physiology of oogenesis and spermatogenesis
 - iii. The physiological basis of controlled ovarian stimulation
 - iv. The clinical aspects of assisted conception treatment
 - v. Laboratory aspects of in vitro fertilization and embryo development including sperm preparation
 - vi. The psychological factors affecting the couple during ART
 - vii. The specific issues relevant to the use of donor gametes and embryos
- The trainee should develop the capacity to:
 - i. Counsel a couple undertaking IVF treatment
 - ii. Facilitate good communication between patients and staff involved in ART
 - iii. Discuss the role of ovarian ultrasound, IUI, oocyte retrieval and embryo transfer
 - iv. Complete the necessary documentation relevant to ART procedures
- The trainee should acquire clinical competence in:
 - i. Undertaking all aspects of ART techniques as described above
- The trainee should acquire experience and knowledge of:
 - i. Relevant administration and management skills, including clinical governance
 - ii. Teaching
 - iii. Legal and ethical issues including the Human Fertilisation and Embryology act
 - iv. Epidemiology, statistics, research and audit

Composition of Syllabus (theoretical and practical elements):

Theoretical knowledge should be acquired during the course of training through:

- Personal study appropriate to the guide to learning
- Attendance at the BFS Assisted Conception theoretical course and similar courses
- Attendance at regular multidisciplinary meetings and educational activities within the training centre
- Tuition from the trainer

Practical knowledge will be obtained during the course of clinical training. Such experience will comprise both supervised and unsupervised care of couples undergoing assisted conception treatment.

Guide to learning

The trainee should sign and date when they consider that the knowledge targets of the guide have been achieved (clear boxes). The trainer should sign off independent clinical skills competence targets (shaded boxes).

1. Basic skills in the management of the infertile couple

The trainee should understand and be able to:

Discuss the epidemiology of infertility

Date:

Discuss the initial assessment of the infertile couple

Date:

Conduct a clinical consultation with infertile couples

Date:

Carry out a physical examination of infertile male and female and initiate appropriate investigations

Date:

Discuss the diagnostic categories of infertility and their relevant prognosis, i.e. male factor infertility, disorders of ovulation, tubal factor infertility, endometriosis and unexplained infertility

Date:

Section Completed

Date:

2. Patient selection for ART

The trainee should understand and be able to:

Discuss the diagnostic categories of infertility and the role which ART has in their management

Date:

Discuss the clinical prognostic factors relevant in assisted conception (e.g. female age, parity, duration of infertility, hydrosalpinges, ovarian reserve, fibroids, endometrial polyps, semen parameters, polycystic ovaries)

Date:

Discuss the place and potential limitations of particular female and male investigations which may be of importance in determining prognosis in ART, e.g. pelvic ultrasound, endometrial assessment, AHM, AFC and FSH determination

Date:

Section Completed

Date:

3. Controlled ovarian hyperstimulation

The trainee should understand and be able to:

Discuss hypothalamic-pituitary-ovarian relationships in the natural cycle

Date:

Discuss the functional relationships of GnRH, FSH and LH

Date:

Discuss the pharmaceutical preparations of gonadotrophins, anti-oestrogens and aromatase inhibitors

Date:

Discuss the role of FSH and LH in induction of multiple follicular development

Date:

Discuss the nature and role of GnRH analogues (agonists and antagonists)

Date:

Demonstrate clinical familiarity with the use of different stimulation protocols involving GnRH agonists and antagonists plus gonadotrophins or gonadotrophins alone in ART

Date:

Discuss the clinical factors influencing choice of stimulation regimen

Date:

Discuss steroid and gonadotrophin profiles during controlled ovarian stimulation protocols

Date:

Discuss the place of natural cycle and mild ovarian stimulation

Date:

Discuss monitoring in controlled ovarian hyperstimulation including the use of ultrasound and ovarian steroid measurements, either alone or in combination

Date:

Discuss the rationale for luteal phase support and demonstrate knowledge of options in timing, route of administration and clinical difficulties encountered in its use

Date:

Discuss the evaluation and management of poor responders

Date:

Demonstrate an intimate understanding of the consequences of treatment, including multiple pregnancy

Date:

Discuss the prevention and management of ovarian hyper stimulation syndrome (OHSS)

Date:

Section Completed

Date:

4. Intrauterine insemination

The trainee should be able to:

Discuss the place of IUI with and without ovarian stimulation

Date:

Discuss the place of donor insemination (DI)

Date:

Discuss the timing of insemination

Date:

Discuss patients preparation for insemination

Date:

Discuss the potential complications

Date:

Section Completed

Date:

5. Oocyte retrieval

The trainee should understand and be able to:

Discuss the timing of oocyte retrieval

Date:

Discuss the equipment required for ultrasound guided oocyte retrieval

Date:

Discuss patient preparation for oocyte retrieval

Date:

Discuss the use of sedation for retrieval and the necessary monitoring requirements

Date:

Discuss the potential complications (e.g. infection, bleeding) associated with the procedure and their preventive strategies

Date:

Section Completed

Date:

6. Ultrasound skills in assisted conception

The trainee should be able to discuss:

Endometrial assessment, including normal cyclical changes and presence of polyps

Date:

The assessment of the normal and abnormal uterus including fibroids and adenomyosis

Date:

The assessment of the normal ovary, antral follicle count (AFC), PCO, ovarian cysts, para-ovarian and tubal masses

Date:

Follicle tracking, formation and disappearance of corpus luteum with particular attention to techniques, methods of recording and frequency of monitoring

Date:

The trainee should understand the risks and limitations of procedures, and understand the need for record keeping and data storage

Date:

Section Completed

Date:

7. Embryology

The trainee should be able to demonstrate knowledge and understanding of:

The physiology of oogenesis and spermatogenesis

Date:

Staff and equipment requirements to set up an embryology laboratory

Date:

Necessary standards for the EUTD

Date:

Laboratory evaluation of sperm including standards and computerised semen analysis

Date:

Standard sperm preparation techniques

Date:

The modifications in sperm preparation required for poor quality, cryopreserved or surgically retrieved sperm samples

Date:

Sperm quality relevant to choice of standard IVF or Intracytoplasmic sperm injection (ICSI)

Date:

Oocyte identification and handling

Date:

Equipment and general technical aspects of micro-manipulation of gametes and embryos

Date:

Embryo culture and evaluation of embryo quality

Date:

Selection and handling of embryos at the time of embryo transfer

Date:

Assisted hatching

Date:

Blastocyst culture and transfer

Date:

The limitations and benefits of gamete and embryo cryopreservation

Date:

Management issues relevant to cryopreservation of gametes and embryos

Date:

Quality control and safety issues in the laboratory

Date:

Pre-implantation genetic diagnosis

Date:

Pre-implantation genetic screening

Date:

Section Completed

Date:

8. Embryo transfer

The trainee should be able to discuss:

The differences between various catheters used for embryo transfer

Date:

The preparation of the patient for embryo transfer

Date:

The use of ultrasound scanning at embryo transfer

Date:

The use of medication during and after embryo transfer

Date:

Section Completed

Date:

9. Implantation

The trainee should demonstrate knowledge of implantation and the factors influencing potential for successful implantation

The role of endometrium

Date:

Immunological factors

Date:

Endocrine factors

Date:

Anatomical factors

Date:

Section Completed

Date:

10. Gamete donation

The trainee should demonstrate an understanding of gamete donation:

The organisation of services

Date:

Patient selection

Date:

Counselling

Date:

Donor selection and screening

Date:

Preparation of oocyte recipient

Date:

Particular issues relevant to assessment of the Welfare of the Child

Date:

Surrogacy

Date:

Legal aspects of gamete donation

Date:

Section Completed

Date:

11. Psychological aspects of infertility and assisted conception

The trainee should be able to discuss:

The psychological changes associated with treatment of infertility

Date:

Local facilities for counselling

Date:

Psychosexual disorders causing and resulting from infertility

Date:

Section Completed

Date:

12. Epidemiology, research, statistics and audit

The trainee should demonstrate knowledge of:

Epidemiological techniques (e.g. cohort studies and case control studies; cumulative rates calculation and assessment of bias; etc.)

Date:

Levels of evidence. Randomized controlled trials, the use of meta-analysis and systematic reviews

Date:

How to critically evaluate research

Date:

How to conduct a clinical audit and apply findings appropriately

Date:

Guidelines for good practice in the conduct of clinical trials

Date:

Section Completed

Date:

13. Teaching

The trainee should understand the role of teaching in the subspecialist area

Date:

The trainee should be able to discuss the value of multidisciplinary meeting in a fertility unit

Date:

Section Completed

Date:

14. Ethical and legal aspects

The trainee should be able to discuss the ethical and legal aspects of relevant issues including:

Legislation relevant to assisted conception

Date:

The role of the HFEA in the regulation of assisted conception in the UK particularly in relation to patient confidentiality and informed consent process

Date:

The role and relevance of ethics committees

Date:

Section Completed

Date:

15. Administration

The trainee should be able to discuss the role of administrative staff/processes in the running of a fertility unit

Section completed

Date:

Record of Appraisal

Date	
Learning targets achieved	
Logbook progress	
Targets for next month	
Trainee signature	
Trainer signature	

Objective structured assessment of technical skills (OSATS)

Trainee Name:		Assessor Name:		Date:
		Post:		

<i>Clinical details of complexity / difficulty of case</i>	
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MODULE	TOPIC: Assisted Conception
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Skill	<i>Competence Level</i>					
	Observation		Direct Supervision		Independent Practice	
	Date	Signature	Date	Signature	Date	Signature
Take a full history from both partners						
Able to identify the cause of subfertility						
Discuss the role of ART in lay term with the patient						
Discuss pros and cons of ART, and what an ART programme entails						
Discuss the limitations and success of ART						
Able to organise the necessary investigations prior to referral for ART						
Recommend the most appropriate assisted conception technique based on the results of the investigations						
Discuss with the patient the role of transvaginal ultrasound scan for antral follicle count and monitoring of ovarian stimulation						
Diagnose and manage OHSS						
Discuss the place of PGD and PGS						
Familiar with the role of HFEA and its current Code of Practice						

Based on the Technical Skills Assessment, has achieved/failed* to achieve the OSATs competency.

Needs further help with:	Does not need further supervision
*	
*	
Date	Date
Signed	Signed

* Delete where applicable, and date and sign the relevant box.

Certification

1. When training is complete, the Notification of Completion of Training form together with the OSATs form should be sent to the BFS. A certificate stating that the trainee has completed the training module will be issued.
2. The trainee is required to submit for scrutiny:
 - the BFS Assisted Conception Theoretical Course certificate of attendance
 - the signed guide to learning (logbook)
 - the OSATs form
 - the records of appraisal
 - the notification of competition form
3. Should the Training Sub-committee not be fully satisfied of the completion of training, a written report and suggestions for remedial training will be sent to the trainer and a copy to the trainee.



Please return completed forms to:
British Fertility Society Secretariat

Euro House, 22 Apex Court, Woodlands
Bradley Stoke, Bristol, BS32 4JT, UK
Tel: +44 (0) 1454 642217
Fax: +44 (0) 1454 642222
Email: bfs@bioscientifica.com
Website: www.fertility.org.uk

British Fertility Society

Application to undertake a training course by a Trainee

Name

Email Address

Daytime Phone Number

Current Post

Qualifications

Date of Application

Name of approved Training Centre

Name of Trainer(s)

Training course(s) applied for:

Assisted Conception <input type="checkbox"/>
<i>The charge for the BFS training module is £120 & is payable upon application.</i>

Course payment:	Credit Card <input type="checkbox"/>
	Card no: _____ Expiry Date: _____ Security No: _____ <i>(Last three digits on back of card)</i>
	Cheque <input type="checkbox"/>
	<i>(Please make payable to BFS)</i>

BFS Number

Signed

Date



British Fertility Society

Please return completed forms to:
British Fertility Society Secretariat

Euro House, 22 Apex Court, Woodlands
Bradley Stoke, Bristol, BS32 4JT, UK
Tel: +44 (0) 1454 642217
Fax: +44 (0) 1454 642222
Email: bfs@bioscientifica.com
Website: www.fertility.org.uk

Letter of Support from the Trainer for the Applicant

Name of Trainee

Name of Trainer

Name of Training Centre

Name of Training Course/s (Please tick the box/s provided)

Assisted Conception	<input type="checkbox"/>	Please be aware that there is a charge per course.
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I confirm: (please tick each box)

That the facilities are available for training in Assisted Conception	
That the trainee has been allocated time for training (<i>suggested 8 hrs per week over a six month period</i>)	
That I will carry out regular monthly appraisals.	
That I will supervise the trainee.	

I have read and agreed to follow the 'expectations of the trainer' document

Web link: <http://www.fertility.org.uk/education/index.html>

Signed..... Date.....



British Fertility Society

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British Fertility Society Secretariat

Euro House, 22 Apex Court, Woodlands
Bradley Stoke, Bristol, BS32 4JT, UK
Tel: +44 (0) 1454 642217
Fax: +44 (0) 1454 642222
Email: bfs@bioscientifica.com
Website: www.fertility.org.uk

Notification of Completion of Training Module

(To be completed by trainer)

I certify that

.....
has completed the training module in Assisted Conception to my satisfaction.
I confirm that I have had regular assessment sessions with the trainee
and each of the required skills in the logbook has been attained.

Date of commencement of practical training: ___/___/___

Date satisfactorily completed theoretical course: ___/___/___

Trainee name:

Trainee signature:

Date:

Trainer(s) in charge of training:

1. **Trainer name:**

Date:

Trainer signature:

Department address:

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