NHS SCOTLAND JOB DESCRIPTION TEMPLATE

1. JOB IDENTIFICATION

Job Title:	Trainee Clinical Scientist (Reproductive Science - Embryology)
Responsible to (insert job title):	Lead Clinical Embryologist
Department(s):	Assisted Conception Service
Directorate:	Women and Children
Operating Division:	Glasgow Royal Infirmary
Job Reference:	
No of Job Holders:	
Last Update (insert date):	06/05/2026

2. JOB PURPOSE

Under supervision of the Lead Clinical Embryologist, the Trainee Clinical Embryologist will become proficient in and participate in, embryology and andrology services for the assessment and treatment of infertility, including, in vitro fertilisation (IVF), intracytoplasmic sperm injection (ICSI), and other micromanipulation techniques, gamete donation, sperm cryopreservation & surgical sperm retrieval, all within the regulations defined by the Human Fertilisation & Embryology Authority.

3. DIMENSIONS

This is a National Training post designed to lead to registration with the Healthcare Professions Council (HCPC) as a Clinical Scientist. The Trainee Clinical Embryologist works as part of the scientific team and working under direct supervision will support the Consultant Clinical Embryologist and Lead Clinical Embryologist in providing a high standard of laboratory service. In addition to training in laboratory duties, the post holder will become responsible for a specific

area of work e.g. quality control, unit transfer of gametes and embryos, or andrology services.

The post holder is expected to take part in weekend cover for the embryology and andrology laboratories on a rotational basis and working under direct supervision, is expected to apply appropriate scientific knowledge, skill and expertise at the required professional level for the provision of a high quality service to patients.

The scientific team operates within a multi-disciplinary team including Consultant Gynaecologists, Clinical Fellows, Nursing, Counselling, and Administrative staff.

Once proficient in laboratory techniques, the Trainee Clinical Embryologist will assist the Lead Clinical Embryologist in maintaining high standards through regular review of Standard Operational Procedures.

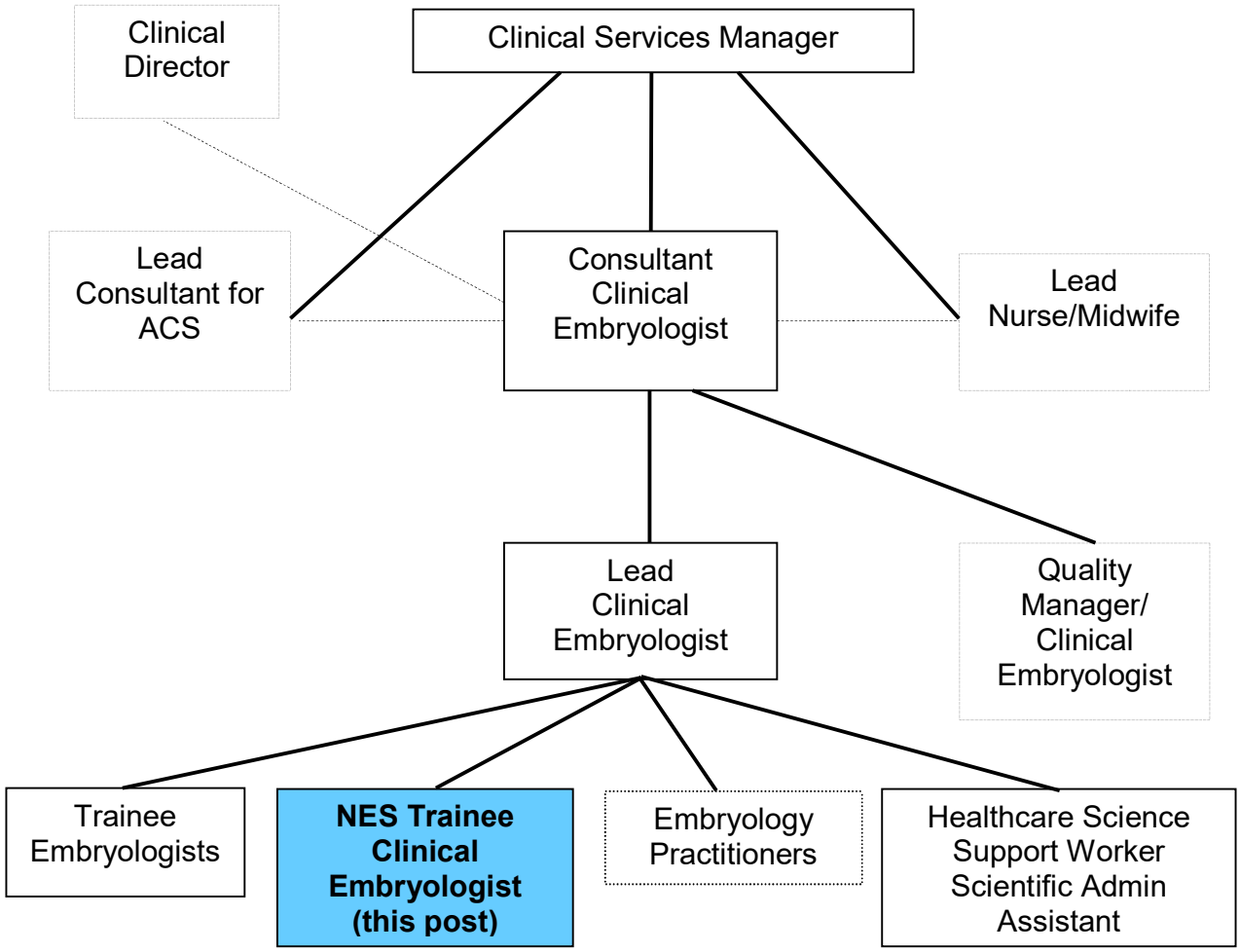
The post holder is expected to complete training in Reproductive Science - Embryology within three years and successfully undertake the Scientific Training Programme Equivalence Assessment with the Academy for Healthcare Science and Registration as a Clinical Scientist with the Health and Care Professions Council once eligible.

The post holder will have the opportunity to participate in appropriate clinical research within the department and in conjunction with external collaborations to improve clinical success rates. They will be expected to disseminate research findings at local, national or international level.

The Trainee Clinical Embryologist will also be expected to:

- Register as a Post-Graduate Trainee with NHS Education for Scotland
- Comply with the Association of Reproductive and Clinical Scientist and local NHS Codes of Conduct
- Attain and provide evidence of the knowledge, skills, and behaviours represented by the Core Standards in Good Scientific Practice and the relevant Modernising Scientific Careers curriculum learning outcomes

4. ORGANISATIONAL POSITION



5. ROLE OF DEPARTMENT

The Assisted Conception Service (ACS) at Glasgow Royal Infirmary was established in 1984 and provides a comprehensive range of infertility treatment for all Health Boards in the West of Scotland. In addition, self-funding patients can be treated through the Glasgow Royal Fertility Clinic of the University of Glasgow. The ACS facilities were part of a major refurbishment programme in 2014 which increased the overall capacity of the ACS, and provides state of the art laboratory equipment and clinical procedures to achieve the highest standard of fertility service to all patients.

The Unit is licensed by the Human Fertilisation and Embryology Authority (HFEA) and provides semen analysis, surgical sperm retrieval (SSR), sperm cryopreservation, ovulation induction, intrauterine insemination (IUI), in vitro fertilisation (IVF), intracytoplasmic sperm injection (ICSI), embryo cryopreservation, donor insemination, oocyte donation, oocyte cryopreservation, and preimplantation genetic testing (PGT). The ACS Scientific Service delivers approximately 1000 cycles of IVF/ICSI, 700 frozen embryo transfers and 300 IUIs with both partner's and donor sperm annually. The Unit obtained an HFEA licence for clinical PGT in 2001 and was awarded National Service Division funding to provide a Scotland wide PGT service in April 2005. The ACS delivers approximately 75 cycles of PGT annually.

6. KEY RESULT AREAS

Clinical Embryology

- To become proficient in laboratory techniques including:
    - Analysis of semen samples and assessment of their suitability for assisted conception
    - Preparation of fresh and cryopreserved semen for IVF, ICSI and IUI using swim-up and discontinuous gradient techniques, as appropriate
    - Assessment, preparation and cryopreservation of epididymal and testicular biopsied sperm
    - Preparation, assessment and injection of oocytes using ICSI
    - Handling and manipulation of oocytes and embryos to facilitate assessment of fertilisation, early cleavage and blastocyst development
    - Assessment of fertilisation and embryo development
    - Selection of embryos for embryo transfer and cryopreservation of supernumerary embryos
    - Cryopreservation of oocytes
    - Warming/thawing of frozen oocytes and embryos during subsequent natural or artificial cycles
    - Communication with patients about aspects of their treatment including fertilisation results and embryo survival after thaws. This may include giving bad news and arranging follow up with clinical staff
    - Cryopreservation of sperm prior to cancer treatment
    - Completion and computation of records in accordance with the Human Fertilisation and Embryology Authority requirements
    - Consultation with medical and nursing staff during assessment of ongoing and past treatment cycles
    - Attend main theatre for surgical sperm retrieval by urological staff
    - Preparation and cryopreservation of surgically retrieved sperm

Other Duties and Responsibilities

- To perform all duties in accordance with the Human Fertilisation and Embryology Act and the Code of Practice issued by the Human Fertilisation and Embryology Authority and Association of Clinical Embryologists
- To perform all duties effectively and to the highest possible standard, with meticulous attention to detail
- To take part in the rota of duties, including weekend work, and to work flexibly to perform tasks as and when necessary including 'out of normal working hours'
- To ensure that appropriate written consent is obtained for all embryology and research procedures
- To inform patients of the progress of their treatment, including the number of eggs which have fertilised normally and the outcome of thaw procedures
- To counsel patients regarding implications of treatment options to ensure accurate information is given and informed choices made
- To give embryology and scientific advice to clinical colleagues as required
- To collect accurate and complete data for laboratory procedures and to critically analyse and audit laboratory performance
- To participate in daily meetings and weekly review meetings as required
- To successfully complete the Academy of Healthcare Science Scientific Training Programme Equivalence Assessment
- To become registered as a Clinical Scientist with the HCPC within three years of employment
- To perform required administrative duties associated with the efficient running of the scientific service

7a. EQUIPMENT AND MACHINERY

Laboratory Equipment

1. Incubators – controlling pH, temperature and humidity

2. Time-lapse technology
3. Independent monitoring equipment for incubators (infra-red CO2 monitors and thermocouples)
4. Safety cabinets – providing sterile environment for embryo culture
5. Temperature control units for microscopes, bench-tops and safety cabinets – variou models
6. Microscopes – stereo, inverted and compound
7. Micromanipulation equipment – mechanical devices fitted to inverted microscopes; controlling 3-dimensional movement of micro-tools and suction.
8. Laser equipment – used to 'drill' holes in the outer coating of embryos during PGT (fitted to microscope and under computer control)
9. Alarm and autodial equipment fitted to dewars containing cryopreserved gametes and embryos
10. Oxygen monitors for areas where liquid nitrogen is used
11. Liquid nitrogen storage vessels
12. Gas regulator equipment and changeover units
13. Cameras – still and video
14. Pipetting devices – various
15. Heat sealing equipment - used during preparation for cryopreservation

7b. SYSTEMS

Computer Equipment and Programmes

1. Computers and printers
2. Specialist commercial database for all aspects of treatment, embryology an outcomes
3. Access and Dbase programmes
4. Specialist image analysis software for embryology

Policies

1. Regulations set out in HFEA code of practice
2. Professional guidelines set out by the Association of Reproductive and

Clinical Scientists

3. NES Quality Assurance and ARCP monitoring
4. All local polices as defined by NHS Greater Glasgow & Clyde.

8. ASSIGNMENT AND REVIEW OF WORK

The Trainee Clinical Embryologist works within the regulations defined by the Human Fertilisation & Embryology Authority and professional standards of the Health and Care Professions Council. The candidate is expected to work in accordance will all GGC mandatory training, policies and procedures and to follow local SOPs in delivery of service and patient care. The candidate is also expected to register as a trainee with NES and comply with Quality Assurance processes including Annual Review of Competence Progression. Performance and personal development will be reviewed annually via TURAS.

9. DECISIONS AND JUDGEMENTS

The daily organisation of the job is determined by clinical workload and proficiency in clinical tasks. The Trainee Clinical Embryologist will be guided by the Consultant, Lead, Senior and Clinical Embryologists in tasks to be prioritised to meet the needs of the Department. Once proficient in clinical duties, the Trainee Clinical Embryologist must work flexibly to perform tasks as and when necessary including 'out of normal working hours' and weekends.

Typical Judgements

- To suggest changes to patient treatment to offer the highest chance of successful treatment
- Selection of embryos for embryo transfer and cryopreservation

10. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB

Intellectually – maintaining quality within the IVF programme. Human embryo culture is one of

the most sensitive systems in tissue culture and any deterioration may not be identified until a drop in pregnancy rates two to three weeks later.

Emotionally – giving bad news to patients; failure of fertilisation may represent the last chance of having a family

Physically – performing ICSI and embryo biopsy require prolonged periods of mental concentration to ensure minimal chance of damage to patients' gametes and embryos.

Managerially –unpredictable workload with potential for increase in activity or regulatory burden without an equivalent increase in personnel, balancing training requirements with clinical activity

11. COMMUNICATIONS AND RELATIONSHIPS

The post holder works as part of a multi-disciplinary team within the Assisted Conception Service. On a daily basis there are scheduled meetings to discuss patients undergoing treatment; embryology, medical, and nursing staff participate. A weekly review of patients who have completed treatment has additional input from administration staff. Ad hoc discussions regarding individual patients are conducted by telephone.

The post holder is expected to play a part in service development and research presentations.

All embryology staff have daily contact with patients, both in person and by telephone. Trainee Clinical Embryologists are responsible for:

- informing patients how many eggs have successfully fertilised after IVF and ICSI treatments
- telling patients when, and how many embryos will be thawed during frozen / thawed cycles
- informing patients how many embryos have survived thawing
- discussing embryo development, day of embryo transfer and number of embryos to be transferred
- informing patients whether embryos are suitable for cryopreservation or must be discarded

- making appointments for patients to produce semen samples

The above tasks may involve giving bad news, for example, all eggs have failed to fertilise or embryos did not survive the freezing and thawing process. The embryologist must give this information sensitively and ensure that distressed patients have understood the information given.

Dealing with men and adolescents who have recently been diagnosed with cancer can be very emotionally demanding, especially when their illness results in failure to produce a semen sample with the potential to allow them to have a family in the future.

Trainee Clinical Embryologists liaise with:

- the Urology department, theatre and ward prior to surgical sperm retrieval
- hospital trades and external maintenance contractors
- other Licensed Centres to organise the transfer of cryopreserved sperm and embryos

12. PHYSICAL, MENTAL, EMOTIONAL AND ENVIRONMENTAL DEMANDS OF THE JOB

Clinical Embryology is a highly specialised profession requiring prolonged periods of intense concentration and the precise manipulation of gametes and embryos, in a controlled environment, using microscopes and micromanipulation equipment. Tasks include:

- the identification and movement of eggs during the retrieval procedure
- preparation of semen samples
- removal of cells from eggs prior to ICSI and before fertilisation assessments
- performing ICSI – selection and immobilisation of a single sperm, correct orientation of an egg and injection of the sperm into the egg. The time taken for this process is dependent on the number of eggs and sperm quality.
- performing embryo biopsy – this is a highly skilled procedure involving use of a laser to remove a single cell from an embryo for diagnosis of specific genetic conditions. This involves intense periods of concentration where an error could result in lysis of the entire embryo. This in some cases may be a patient's only chance of a successful normal

pregnancy.

- detailed assessments of embryo normality and quality
- processing embryos though a series of solutions during freezing and thawing
- embryo transfer, involving precise synchrony with the clinician performing the procedure
- manipulation of ampoules and straws under liquid nitrogen
- handling hazardous materials e.g. body fluids and liquid nitrogen

13. KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB

The Trainee Embryologist must have:

- A recognised relevant life sciences honours degree awarded at 2:2 or above and MSc or PhD in a related discipline
- Previous employment experience within an IVF laboratory
- A high degree of dexterity, hand eye coordination and mobility within a confined space
- Excellent communication skills
- Strong numerical and analytical skills

14. JOB DESCRIPTION AGREEMENT

A separate job description will need to be signed off by each jobholder to whom the job description applies.	
Job Holder's Signature:	Date:
Head of Department Signature:	Date: