

# Unit 17: Introduction to Laboratory Practice in the HFEA-Licensed Reproductive Science Laboratory

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional (Reproductive Science)</b>
<b>Credit value:</b>	<b>2</b>
<b>Guided learning hours:</b>	<b>11</b>

---

## Unit summary

This unit aims to give learners an understanding of laboratory practice within the HFEA-Licensed Fertility Clinic in terms of how Standard Operating Procedures work, key aspects of quality management, reporting and communication, and the maintenance and use of specialist equipment.

## Unit assessment requirements

Assessment tasks and activities must enable learners to produce valid, sufficient, authentic and appropriate evidence that relates directly to the learning outcomes and assessment criteria of the unit. Suitable forms of evidence for this unit include:

- written tasks such as reports, articles for journals, newsletters, leaflets, posters
- workbooks, work logbooks or learner diaries
- written or oral presentations
- projects
- oral question and answer.

Observation is only suitable for assessment criteria that require learners to demonstrate skills and behaviours, in this unit AC5.3.

When devising the assessment activities, centres need to look closely at the verb used in each assessment criterion to ensure that learners can provide evidence with sufficient breadth and depth to meet the requirements. Centres need to produce assessment briefs for learners with clear instructions of what they are required to do.

## Additional information

AC3.1, to include:

- risks of Liquid Nitrogen
- action to take in the event of an emergency
- Personal Protective Equipment
- low-oxygen alarms
- cross-contamination risks for samples
- storage under Liquid Nitrogen
- storage in vapour phase
- alarm systems
- security of the cryopreservation facility.

For AC4.1, specialist equipment includes:

- Biological Safety Cabinet
- Centrifuge
- Incubator
- Microscope

AC5.1 to include examples of communication:

- within the laboratory team
- within the wider multidisciplinary team
- with external agencies, including HFEA.

## Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand how Standard Operating Procedures ensure a safe working environment in the laboratory and safeguard the quality and safety of human gametes and embryos	1.1	Explain how Standard Operating Procedures are structured, how to access them, and the importance of their use			
		1.2	Describe the procedures required to safeguard the quality and safety of human gametes and embryos			
		1.3	Describe how to ensure the security of a laboratory			
		1.4	State the clothing policy for the different areas within a laboratory			
		1.5	State the requirements for air quality for different areas within a laboratory			
		1.6	Describe how a safe working environment is maintained, including cleaning, movement of stock and waste disposal			
		1.7	Describe the appropriate use of cleaning products within a laboratory			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand the key components of Quality Management in the HFEA-licensed Reproductive Science Laboratory	2.1	State the requirements for Quality Management as specified by the HFEA Code of Practice			
		2.2	Describe the methods used to track the use of laboratory equipment			
		2.3	Describe the methods used to track the use of laboratory consumables			
		2.4	Describe the methods used to track the status of a laboratory environment			
		2.5	Explain the purpose of the daily monitoring tasks in a laboratory			
		2.6	Explain how audit procedures are used in own laboratory			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Understand the requirements for working safely within the Cryopreservation Facility	3.1	State the operational principles and requirements for safe operation within a Cryopreservation Facility			
		3.2	State the functions and purpose of the equipment located in a cryopreservation facility			
		3.3	State the specific safety considerations for each piece of equipment in a cryopreservation facility			
		3.4	State how to maintain contemporaneous records in accordance with local policies and procedures			
		3.5	Describe the remedial action to take when adverse situations, problems or events occur			
		3.6	Describe how to act on events that require immediate action in accordance with local policies and procedure			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Understand the use and maintenance of the specialist equipment used in the HFEA-licensed Reproductive Science Laboratory	4.1	Describe the function and types of specialist equipment used in a HFEA licensed reproductive science laboratory			
		4.2	Describe how to clean specialist equipment used in a HFEA licensed reproductive science laboratory			
		4.3	Describe the routine checks that are performed on specialist equipment used in a HFEA licensed reproductive science laboratory			
		4.4	Describe the safety features of specialist equipment used in a HFEA licensed reproductive science laboratory			
		4.5	State where to find the manuals for the equipment used in own laboratory			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Be able to report and communicate within the HFEA-Licensed Fertility Clinic	5.1	Describe the communication methods used in the context of delivery of services within a HFEA-Licensed Fertility Clinic			
		5.2	State tasks which require the use of effective communications			
		5.3	Demonstrate the use of communication skills: <ul style="list-style-type: none"> <li>• within the laboratory</li> <li>• within the wider multidisciplinary team</li> </ul>			
		5.4	Describe the effects of poor communication			
6	Understand the context, troubleshooting, when to take advice	6.1	Explain the role of the Healthcare Science Assistant in a HFEA-Licensed Reproductive Science Laboratory			
		6.2	Describe the limits of own authority and to whom they should report if they encounter problems that they cannot resolve			
		6.3	Describe how to report an incident and understand the process of incident reporting at both local level and to the Human Fertilisation and Embryology Authority			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*