MS938-15 Introduction to the Anatomy, Physiology and Endocrinology of Reproductive Systems

26/27

Department
Warwick Medical School
Level
Taught Postgraduate Level
Module leader
Anthony Lyons
Credit value
15
Module duration
10 weeks
Assessment
60% coursework, 40% exam
Study location
University of Warwick main campus, Coventry

Description

Introductory description

This module is an introduction to male and female reproductive anatomy and physiology, focusing on normal functions as well as the recognition of pathologies. Key content areas include an in-depth study of the male reproductive system and its physiological processes, along with a thorough examination of the female reproductive anatomy, including the menstrual cycle and hormonal regulation. Students will also explore the guidelines, regulations, and legislative frameworks that govern practices in andrology and assisted reproductive technology (ART), with an emphasis on the importance of accurate record-keeping for patient data.

Module aims

The aims of this module are to provide students with a comprehensive understanding of male and female reproductive anatomy and physiology, emphasising normal functions and pathology recognition. It seeks to integrate theoretical knowledge with practical applications in andrology and assisted reproductive technology (ART). Additionally, the module aims to highlight the importance

of guidelines and regulations governing reproductive health practices, along with the roles of healthcare professionals involved in patient care.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

This module provides a comprehensive overview of sexual differentiation, focusing on the development of foetal testes and ovaries, along with the endocrinology and embryology involved. It delves into the anatomy and physiology of both male and female reproductive tracts, highlighting the roles of reproductive endocrinology. The module also examines the regulatory frameworks governing assisted reproductive technology (ART) and outlines the patient treatment pathway. Key roles within ART centres are explored, including those of clinicians, scientists, and embryologists. Additionally, diagnostic methods for male dysfunction, laboratory best practices, and effective patient communication strategies are addressed, ensuring a holistic approach to reproductive science.

Learning outcomes

By the end of the module, students should be able to:

- Critically analyse male and female sexual differentiation, integrating embryological and hormonal mechanisms to explain normal development and variations.
- Evaluate the role of meiosis and genetic inheritance in sexual reproduction, linking these processes to reproductive health.
- Assess male and female reproductive anatomy and endocrinology, examining their impact on normal and abnormal reproductive function.
- Evaluate regulatory and legislative frameworks for Assisted Reproductive Technology (ART) to ensure compliance and quality patient care.
- Critically appraise diagnostic and treatment pathways for andrological dysfunction, considering multidisciplinary approaches and best practice guidelines.

Indicative reading list

Reading lists can be found in Talis

Subject specific skills

1. Develop comprehensive knowledge of the embryology and endocrinology of sexual differentiation, including the development of the foetal testes and ovary.
2. Gain an understanding of the anatomy and physiology of both male and female reproductive tracts, essential for diagnosing reproductive health issues.
3. Learn to assess male and female reproductive endocrinology, understanding hormonal regulation and its impact on reproductive functions.
4. Ability to identify and assess male andrological dysfunctions, utilising diagnostic techniques to study these conditions effectively.

5. Acquire knowledge of the legal, regulatory, and ethical frameworks governing Assisted Reproductive Technologies (ART), ensuring compliance in clinical practice.
6. Gain understanding of the complete patient treatment pathway in ART, from diagnosis to therapy, including the roles of various healthcare professionals involved in patient care.

Transferable skills

1. Critical Thinking and Problem Solving: Students will develop the ability to critically analyse complex issues, evaluate diagnostic and treatment options, and make informed decisions based on clinical data and guidelines.
2. Teamwork and Collaboration: The module emphasises the importance of working within multidisciplinary teams.
3. Ethical Reasoning: Students will learn to understand ethical considerations, gaining the ability to assess and apply ethical frameworks in clinical decision-making.

Study

Study time

Type	Required
Seminars	16 sessions of 1 hour (11%)
Online learning (scheduled sessions)	4 sessions of 1 hour (3%)
Private study	70 hours (47%)
Assessment	60 hours (40%)
Total	150 hours

Private study description

Structured online activities via VLE (Moodle) including podcasts and other online resources, discussion forums, case reports – 70 hours self-directed learning – 30 hours each in preparation for two assessments.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group D

	Weighting	Study time	Eligible for self-certification
Assessment component			
Case Report on a topic from the module	60%	30 hours	Yes (extension)

The case report will be based on a list of specific topics from the module provided to the students, designed to meet learning outcomes. This assessment will enhance students' ability to apply theoretical concepts to real-world scenarios while developing critical thinking and analytical skills.

Reassessment component is the same

Assessment component

Short Answer Questions with Clinical Vignette's	40%	30 hours	No

The short answer question exam will assess students’ knowledge of key concepts, theories, and practices of reproductive anatomy, physiology, and diagnostic practices, as well as their understanding of Assisted Reproductive Technology (ART) guidelines and regulations. Questions will cover key concepts such as sexual differentiation, endocrinology, patient treatment pathways, and ethical considerations in reproductive health.

Reassessment component is the same

Feedback on assessment

Assessments will be marked using clear grading criteria, ensuring transparency and consistency in feedback. Students will receive a breakdown of their performance across different assessment components. Detailed, structured comments will be provided on submitted assessments, highlighting strengths, areas for improvement, and suggestions for further development.

Past exam papers for MS938

Availability

There is currently no information about the courses for which this module is core or optional.