

Certification Course in

CLINICAL IMAGING

ABOUT

College of Radiographers

The College of Radiographers (CoR) was established as a company (company registration number 1287383) on 18 October 1976 and is also a registered charity (charity number 272505). Founded in 1920, the Society of Radiographers is one of the oldest and most experienced radiographic organisations in the world. The Society of Radiographers and the College of Radiographers are two separate companies operating together as the Society and College of Radiographers. They provide service and support to professionals that are involved in practicing radiography and promote this practice for the benefit of patients and the public. The business of the College is overseen by the College Board of Trustees and they are also, the organisation's governing body. The CoR is concerned with the promotion of medical imaging, radiotherapy, study and research in radiography, and also helps in creating public awareness of the profession. These objectives are seen to be focussed to develop the science and practice of radiography and radiotherapeutic technology and allied subjects, and to publish the results of all such study and research. The UK Council is the board of directors and the executive committee for the Society.



ABOUT

Health Education England

(HEE) is a part of the NHS constitution involved in supporting the delivery of excellent care in health care with incremental health improvement for patients and the public of England. With broad based topics for upskilling doctors, its elfh program, is the state of the art elearning for healthcare which has more than 100 programs where more than 160,000 students in real time access it, developing healthcare staff in a range of healthcare and community settings.



SESSION 01

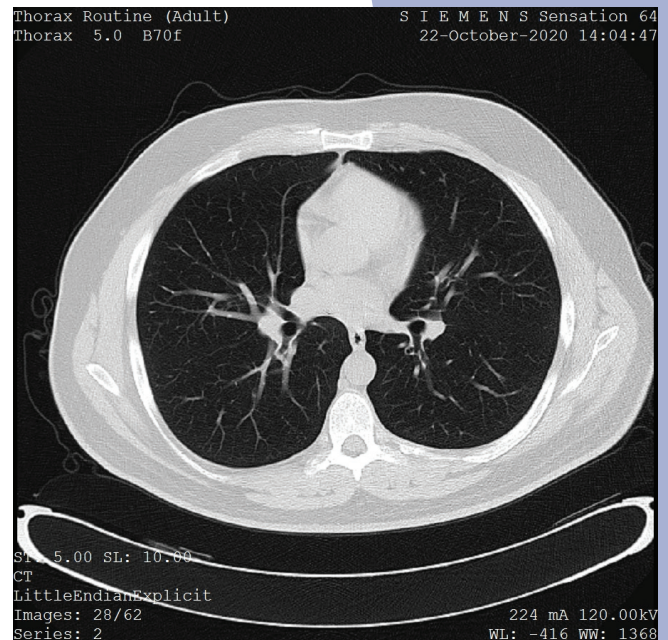
Clinical Imaging of the Adult Skeleton: Introduction

- 1.1 | Introduction
- 1.2 | General Anatomy and Biomechanics
- 1.3 | Fractures and Pathology

SESSION 02

The Appendicular Skeleton (Adults)

- 2.1 | Hand
- 2.2 | Carpal Bones
- 2.3 | Wrist
- 2.4 | Radius and Ulna
- 2.5 | Elbow
- 2.6 | Shoulder
- 2.7 | Ankle
- 2.8 | Foot
- 2.9 | Calcaneum
- 2.10 | Knee
- 2.11 | Hip



SESSION 03

The Axial Skeleton (Adult)

- 3.1 | Pelvis
- 3.2 | Bones of the Thorax
- 3.3 | Cervical Spine
- 3.4 | Thoracic Spine
- 3.5 | Lumbar Spine
- 3.6 | Facial Bones
- 3.7 | Skull

SESSION 04

Clinical Imaging of the Adult Skeleton: Self-evaluation

- 4.1 | The Appendicular Skeleton
- 4.2 | The Axial Skeleton
- 4.3 | The Appendicular and Axial Skeleton

SESSION 05

Plain X-rays of the Adult Chest

- 5.1 | Introduction
- 5.2 | General Anatomy and Physiology
- 5.3 | The Normal Chest X-ray
- 5.4 | Airspace Opacification
- 5.5 | Interstitial Lung Disease
- 5.6 | Nodules
- 5.7 | Hila, Mediastinum and Heart
- 5.8 | Pleural Conditions and Diseases
- 5.9 | Emergency, Lines and Instrumentation
- 5.10 | Self-evaluation

SESSION 06

The Paediatric Skeleton: Introduction

- 6.1 | Introduction
- 6.2 | Bone Development
- 6.3 | Pathology
- 6.4 | Fractures

SESSION 07

The Paediatric Skeleton: Axial and Appendicular Skeleton (Paediatric)

- 7.1 | Hand
- 7.2 | Wrist

- 7.3 | Radius and Ulna
- 7.4 | Elbow
- 7.5 | Shoulder and Humerus
- 7.6 | Foot and Calcaneum
- 7.7 | Ankle
- 7.8 | Knee, Tibia and Fibula
- 7.9 | Pelvis and Hip
- 7.10 | Bones of the Thorax and Spine
- 7.11 | Skull and Facial Bones

SESSION 08

Non-accidental Injury (Paediatric)

- 8.1 | Non-accidental Injury (Paediatric)

SESSION 09

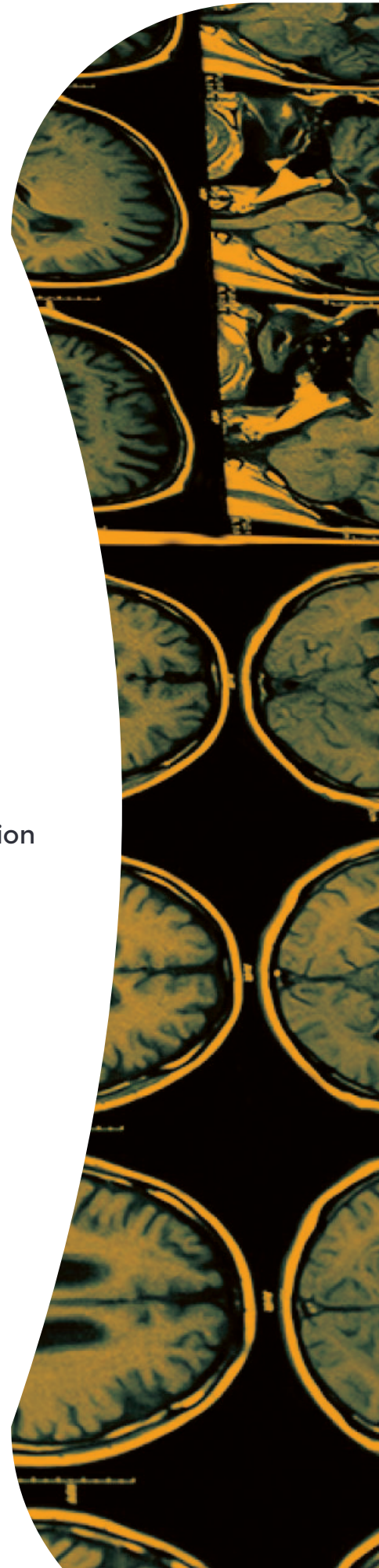
Clinical Imaging of the Paediatric Skeleton: Self-evaluation

- 9.1 | Clinical Imaging of the Paediatric Skeleton: Self-evaluation

SESSION 10

Plain X-rays of the Adult Abdomen

- 10.1 | Introduction
- 10.2 | Anatomy
- 10.3 | Plain Abdominal Radiograph
- 10.4 | Gas and Soft Tissue Abnormalities
- 10.5 | Calcifications
- 10.6 | Lines and Instrumentation
- 10.7 | Artefacts and Non-incidental Findings
- 10.8 | Self-evaluation



SESSION 11

Plain X-rays of the Paediatric Chest

- 11.1 | Introduction
- 11.2 | Anatomy
- 11.3 | The Normal Plain X-ray
- 11.4 | Neonatal Disorders
- 11.5 | Infection
- 11.6 | Cystic
- 11.7 | Congenital Heart Disease
- 11.8 | Lines, Tubes and Instruments
- 11.9 | Self-evaluation
- 11.10 | Tumours

SESSION 12

Cross-sectional Imaging

- 12.1 | Introduction
- 12.2 | Role of CT and MRI in Neurological Emergencies
- 12.3 | Anatomy of the Brain
- 12.4 | Anatomy of the Cervical Spine
- 12.5 | Normal CT Neuroanatomy
- 12.6 | Intracranial Haemorrhage
- 12.7 | Basic Ischaemic Stroke
- 12.8 | Cervical Spine Injuries
- 12.9 | Self-evaluation
- 12.10 | Case Studies

SESSION 13

Forensic Radiography

- 13.1 | Introduction
- 13.2 | A Historical Perspective
- 13.3 | Radiography and the Law
- 13.4 | Local Provision, Building a Protocol

13.5 | Investigation of Unexplained Injury and Death

13.6 | A Practical Toolkit

SESSION 14

Introduction to Imaging Technologies

- 14.1 | Overview
- 14.2 | X-ray
- 14.3 | Computed Tomography
- 14.4 | Magnetic Resonance Imaging
- 14.5 | Magnetic Resonance Imaging Safety
- 14.6 | X-ray Review
- 14.7 | Computed Tomography Review
- 14.8 | Magnetic Resonance Imaging Review

SESSION 15

Gynaecological Ultrasound

- 15.1 | Introduction and Image Optimisation
- 15.2 | Children and Adolescents
- 15.3 | Ovaries and Uterus
- 15.4 | Ovaries and Adnexa
- 15.5 | Menstrual Cycle
- 15.6 | Normal Early Pregnancy
- 15.7 | Abnormal Early Pregnancy
- 15.8 | Postmenopausal Pelvis
- 15.9 | Infertility

SESSION 16

Abdominal Ultrasound

- 16.1 | Introduction and Image Optimisation
- 16.2 | Aorta
- 16.3 | Pancreas



- 16.4 | Liver
- 16.5 | Gall Bladder and Biliary Tree
- 16.6 | Kidneys
- 16.7 | Bladder
- 16.8 | Spleen
- 16.9 | Miscellaneous
- 16.10 | Focused Assessment with Sonography for Trauma

SESSION 17

Men's Health Ultrasound

- 17.1 | Men's Health Ultrasound

SESSION 18

Vascular Ultrasound

- 18.1 | Introduction and Image Optimisation
- 18.2 | Lower Limb Arteries
- 18.3 | Venous Insufficiency - Session 1
- 18.4 | Venous Insufficiency - Session 2
- 18.5 | Extracranial Carotid and Vertebral Systems - Session 1
- 18.6 | Extracranial Carotid and Vertebral Systems - Session 2
- 18.7 | DVT

SESSION 19

Musculoskeletal Ultrasound

- 19.1 | Introduction and Image Optimisation
- 19.2 | Shoulder
- 19.3 | Elbow
- 19.4 | Wrist and Hand
- 19.5 | Adult Hip
- 19.6 | Paediatric Hip
- 19.7 | Knee

- 19.8 | Ankle and Foot
- 19.9 | Abdominal Wall
- 19.10 | Rheumatology
- 19.11 | Guided Injections

SESSION 20

Head and Neck Ultrasound

- 20.1 | Thyroid
- 20.2 | Salivary Glands
- 20.3 | Neck Lymph Nodes
- 20.4 | Cranial

SESSION 21

Obstetric Ultrasound

- 21.1 | Introduction
- 21.2 | Biochemistry
- 21.3 | Normal First Trimester
- 21.4 | Abnormal First Trimester
- 21.5 | Nuchal Translucency
- 21.6 | Normal Fetal Anomaly Scan
- 21.7 | Fetal Head and Face
- 21.8 | Fetal Heart and Chest
- 21.9 | Fetal Abdomen
- 21.10 | Fetal Spine and Skeleton
- 21.11 | Third Trimester Scans
- 21.12 | Applications of Doppler Ultrasound
- 21.13 | Placental and Cervical Assessment in Pregnancy
- 21.14 | Multiple Pregnancy
- 21.15 | Ultrasound-guided Interventional Procedures

SESSION 22

MRI Musculoskeletal : Introduction

- 22.1 | MRI Musculoskeletal : Introduction
- 22.2 | MRI Musculoskeletal : Upper Limbs
- 22.3 | MRI: Musculoskeletal : Lower Limbs
- 22.4 | MRI: Musculoskeletal : Spine
- 22.5 | MRI: Musculoskeletal : Self Evaluation
- 22.6 | MRI: Internal Auditory meatus

SESSION 23

Breast Imaging

- 23.1 | Introduction
- 23.2 | History
- 23.3 | Breast Assessment: Screening and Symptomatic
- 23.4 | Breast Imaging: General Anatomy and Physiology
- 23.5 | Quality Assurance and Quality Control
- 23.6 | Biopsy

SESSION 24

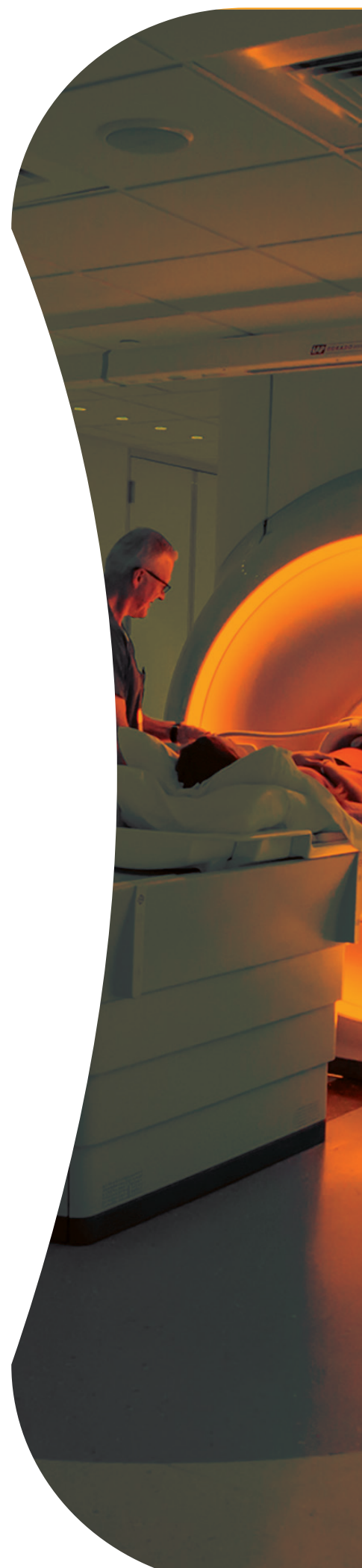
Gastro-intestinal and Genito-urinary

- 24.1 | Gastro-intestinal and Genito-urinary

SESSION 25

Nuclear Medicine

- 25.1 | Principles of Nuclear Medicine
- 25.2 | Gamma Camera Imaging Technology
- 25.3 | Bone Scanning
- 25.4 | Lung Scanning
- 25.5 | Renography
- 25.6 | Endocrine System Imaging



- 25.7 | Cardiac Stressing for Myocardial Perfusion Studies
- 25.8 | Myocardial Perfusion Imaging
- 25.9 | PET-CT Technology
- 25.10 | PET-CT Imaging for Oncology
- 25.11 | PET-CT Imaging for Non-oncology
- 25.12 | Sentinel Node Localisation
- 25.13 | Radionuclide Therapy

SESSION 26

Cardiac Imaging

- 26.1 | Cardiovascular Computed Tomography - Introduction and Anatomy
- 26.2 | Cardiac Computed Tomography - Coronary Artery Screening
- 26.3 | Cardiac Imaging
- 26.4 | Cardiovascular Magnetic Resonance Imaging
- 26.5 | Cardiovascular Magnetic Resonance Imaging - Pathology
- 26.6 | Interventional Cardiac Procedures
- 26.7 | Echocardiography and Cardiac Nuclear Medicine Examinations
- 26.8 | Catheter Studies - Typical Diagnostic Angiogram and Normal Findings
- 26.9 | Catheter Studies - Disease Diagnosis
- 26.10 | Catheter Studies - Percutaneous Coronary Intervention (PCI) treatment of Coronary Artery Disease (CAD)
- 26.11 | Chest Radiography

SESSION 27

Neurointervention

- 27.1 | Neurointervention

SESSION 28

Nasogastric Tube Placement

- 28.1 | Nasogastric Tube Placement

**SESSION
29**

**Dual-energy X-ray Absorptiometry
(DXA)**

29.1 | Dual-energy X-ray Absorptiometry (DXA)

**SESSION
30**

**Dental and Maxillo-facial
Radiography**

30.1 | Dental and Maxillo-facial Radiography

**SESSION
31**

Accessory Projections

31.1 | Accessory Projections

**SESSION
32**

Cross-sectional Anatomy

- 32.1 | Head
- 32.2 | Neck
- 32.3 | Chest
- 32.4 | Abdomen and Pelvis
- 32.5 | Cervical Spine
- 32.6 | Facial Bones
- 32.7 | Pelvis, Hip and Knee
- 32.8 | Ankle and Foot
- 32.9 | Shoulder and Elbow
- 32.10 | Wrist

SESSION 33

Orthopaedic Imaging

- 33.1 | General Principles
- 33.2 | Hip
- 33.3 | Knee
- 33.4 | Shoulder
- 33.5 | Elbow
- 33.6 | Foot and Ankle
- 33.7 | Hand and Wrist
- 33.8 | Long Bones
- 33.9 | Vertebral Column
- 33.10 | Pelvis



SESSION 34

Orthopaedic Intervention

- 34.1 | Orthopaedic Intervention

SESSION 35

Introduction to the Operating Theatre Environment

- 35.1 | Introduction to the Operating Theatre Environment

SESSION 36

General Principles of Imaging in the Operating Theatre

- 36.1 | General Principles of Imaging in the Operating Theatre

SESSION 37

Anatomy

- 37.1 | Anatomy