

GOALS & OBJECTIVES FOR CARDIOTHORACIC (CHEST) RADIOLOGY

	ROTATION 1	ROTATIONS 2 & 3	ROTATION 4
COMPETENCY	LEARNING OBJECTIVES	LEARNING OBJECTIVES	LEARNING OBJECTIVES
<u>Patient Care</u> <i>Compassion, appropriate & effective care for health problems; promotion of health</i>	Learn CT protocols	Expand on CT protocols & techniques	Master CT protocols & techniques
	Assist in preparation for examinations, as needed	Learn to tailor examinations to specific problems	Perform all examinations with confidence
	Understand multimodality imaging evaluation	Refine understanding of use of multimodality imaging	Formulate well-constructed management decisions
	Learn to use contrast & treat contrast reactions	Expand on contrast & treatment of contrast reactions	Master contrast use & treatment of contrast reactions
		Learn Cardiac CT/MR protocols & techniques	Expand on Cardiac CT/MR protocols & techniques
<u>Medical Knowledge</u> <i>Clinical & radiological knowledge; scholarly pursuits; commitment to lifelong learning</i>	Learn CT imaging principles & quality control	Refine CT imaging principles & quality control; Introduce CT/MR imaging for the chest/heart	Master CT imaging principles & quality control Expand on cardiac imaging topics
	Learn basic technical principles	Refine technical principles	Master technical principles
	Learn common chest/cardiac diseases	Learn less common chest/cardiac diseases	Learn uncommon chest/cardiac diseases
	Learn principles of CT interpretation of body systems	Expand on CT interpretation of body systems	Master CT interpretation of body systems
	Learn to identify normal and developmental anatomy	Formulate appropriate differential diagnosis	Master appropriate & integrated differential diagnosis
<u>Interpersonal & Communication Skills</u> <i>Effective communication with physicians & healthcare personnel; established patient relationships; listening skills</i>	Interview patients; explain studies with faculty	Interview patients; explain studies +/- faculty	Interview patients; explain studies independently
	Work with technologists & nurses, as appropriate	Guide technologists & nurses, as appropriate	Supervise technologists & nurses, as appropriate
	Check studies for technologists; present to faculty	Check studies; review cases with faculty & clinicians	Check studies; review confidently with clinicians
	Make preliminary observations; call critical findings	Confidently describe findings & draw conclusions	Master observations & conclusions; call critical dx
	Correlate imaging findings with faculty help	Correlate imaging findings more independently	Correlate findings independently & confidently
	Dictate concise and accurate reports promptly	Dictate accurate and complete reports promptly	Dictate accurate and sophisticated reports promptly
	Convey important findings to clinician with faculty	Convey important findings to clinician +/- faculty	Convey findings to clinician independently
<u>Practice-Based Learning</u> <i>Investigation & evaluation of patient care practices; appraisal & assimilation of scientific evidence for practice improvement</i>	Recognize own limitations	Recognize own limitations	Recognize own limitations
	Make decisions appropriate for level of training	Make decisions appropriate for level of training	Make decisions appropriate for experience
	Observe image acquisition	Learn and participate in image processing	Expand on and participate in image processing
	Learn ACR standards for chest & cardiac CT imaging	Apply ACR standards for chest CT imaging	Master ACR standards for chest CT imaging
	Learn imaging pitfalls & variants	Recognize imaging artifacts & pitfalls	Recognize & "troubleshoot" imaging artifacts/pitfalls
	Select patients for follow-up with faculty	Perform complete integrated follow-up on patients	Confidently present follow-ups to faculty
<u>Professionalism</u> <i>Altruism; accountability; adherence to principles of medical ethics; respect & protection of patients' interests</i>	Protocol & modify requisitions for appropriateness	Protocol & modify requisitions for appropriateness	Protocol & modify requisitions for appropriateness
	Review history/labs for contraindications & safety	Review history/labs for contraindications & safety	Review history/labs for contraindications & safety
	Seek advice re: non-standard examinations	Learn more about CT/MR image acquisition/troubleshooting to obtain best scan possible for the patient	Learn more about CT/MR image acquisition/troubleshooting to obtain best scan possible for the patient
	Perform examinations with radiation safety in mind	Learn more about radiation safety & exposure issues	Know radiation dosimetry & minimize exposures
	Demonstrate compassion & consideration for patients	Seek faculty advice when expertise required	Seek faculty advice when most expertise required
	Sign reports promptly	Sign reports promptly	Sign reports promptly
<u>Systems-Based Practice</u> <i>Understanding & integration of health care practices; use of resources for optimal care</i>	Correlate imaging studies with faculty	Correlate imaging studies confidently	Master correlation imaging studies
	Learn clinical algorithms for chest CT evaluation	Expand clinical algorithms for chest/cardiac CT/MR evaluation	Master clinical algorithms for chest CT evaluation
	Attend weekly multidisciplinary Thor Onc/Vascular conferences	Attend/Present at weekly multidisciplinary Thor Onc/Vascular confs	Present at multidisciplinary Thor Onc/Vascular confs
	Learn about coding, documentation & reimbursement	Learn cost-effective strategies for diagnosis	Understand medico-legal issues of interventions

Clinical Scope: Chest, cardiac; adults & children; trauma & non-trauma; oncology (cancer diagnosis & staging) & non-oncology

GOALS & OBJECTIVES FOR CARDIOTHORACIC (CHEST) RADIOLOGY (Appendix)

	ROTATION 1	ROTATIONS 2 & 3	ROTATION 4
SKILLS	SPECIFIC LEARNING OBJECTIVES	SPECIFIC LEARNING OBJECTIVES	SPECIFIC LEARNING OBJECTIVES
Diagnostic Imaging	Apply CT protocols to clinical situations	Oncology cases: interpret & interact with clinicians	Master CT appearance common & uncommon disease
	Acute conditions (trauma, non-trauma)	Cardiovascular cases: proper use reformatting options	Master communication skills with clinicians
	CT Chest	Recognize variations/subtleties emerg CT situations	Judgment: CT vs. other imaging & non-imaging tests
	IV contrast delivery & prevent complications if poss.	Cardiac CT and MR: indications for, protocol, troubleshooting	Build upon cardiac CT/MR experience: postprocessing images, case discussion, troubleshooting artifacts etc.
	Learn CT anatomy	Vascular and Non vascular MR Chest: proper use, problem solving	Vascular and Nonvascular MR Chest: advanced topics
GOALS	To develop an introductory knowledge base in the basics of CT scan and image interpretation	To advance one's knowledge of CT and MR to build experience	To develop mastery of CT and MR imaging techniques, including advanced techniques