UT Health San Antonio Urology

RADIOLOGY GOALS AND OBJECTIVES

Interventional Radiology Elective (InRad) PGY-1

1. Patient Care

Definition:
Provide patient care through safe, efficient, appropriately utilized, quality controlled interventional radiology techniques and effectively communicate results to the referring physician and/or other appropriate individuals in a timely manner.

Skills:
- Gather essential and accurate information about patients.
- Develop a management plan based on the clinical questions and relevant clinical, radiologic, and pathologic information.
- Counsel patients concerning preparation for the interventional procedure.
- Demonstrate a basic understanding of electronic patient information systems.
- Demonstrate the ability to use the Internet as an educational instrument to expand medical knowledge.
- Demonstrate knowledge of the levels of ionizing radiation related to specific interventional procedures and employ measures to minimize radiation dose to the patient.
- Perform interventional procedures appropriately and safely, assuring that the correct examination is ordered and performed.
- Oversee basic interventional procedures being performed by the diagnostic radiology resident to ensure best patient care.

Education (with Graduated Faculty Supervision and Feedback):
- Practical experience in developing a differential diagnosis and management plan based on clinical data, imaging findings, and other medical test results.
- Instruction and experience in computer applications in radiology
- Active participation in journal reviews to determine the effectiveness of interventional techniques and non-invasive imaging.
- Graduated responsibility in performing radiologic procedures.
- Didactic instruction in radiation safety.
- Preparation and presentation of radiologic cases to other members of the health care team.

Assessment:
- Procedure / case logs
- Monthly faculty evaluations
- Direct observation by faculty of invasive procedures 4. 360-degree evaluation

2. MEDICAL KNOWLEDGE

Definition:
Engage in continuous learning using up-to-date evidence and apply appropriate state of the art diagnostic and/or interventional radiology techniques to meet the imaging needs of patients, referring physicians and the health care system.

Skills:
- Demonstrate sufficient knowledge of medicine and apply this knowledge to the preparation for and performance of interventional procedures in a clinical context.
- Demonstrate progressive acquisition of radiologic knowledge.
- Demonstrate knowledge of principles of research design and implementation.
- Generate a clinically appropriate treatment plan.
- Demonstrate the ability to use all relevant information resources to acquire evidence-based data.
- Understand how radiologic equipment and the armamentarium of interventional options available can be used for specific interventional procedures.

Education:
- Didactic lectures and self-directed learning on the science and practice of radiology, including physics, radiation biology, and radiation protection
- Participation in departmental and interdepartmental case conferences.
- Participation in the clinical activities of the radiology department.
- Departmental, online or institutional training programs on research design and implementation.

Assessment:
- Monthly faculty evaluations
- Presentation and analysis of scientific articles at Journal Club
- Abstract, poster submitted for presentation or manuscript submitted for publication.

3. PRACTICE-BASED LEARNING AND IMPROVEMENT

Definition:
Participation in evaluation of one's own personal practice utilizing scientific evidence, "best practices" and self-assessment programs in order to optimize patient care through lifelong learning.

Skills:
- Analyze practice experience and perform practice-based improvement in cognitive knowledge, observational skills, formulating a synthesis and impression, and procedural skills.
- Demonstrate critical assessment of the scientific literature.
- Demonstrate knowledge of evidence-based medicine and apply its principles in practice.
- Use multiple sources, including information technology, to optimize lifelong learning and support patient care decisions. • Facilitate the learning of students, peers, and other health care professionals.

Education:
- Critical assessment of scientific literature through journal clubs, clinical conference, and independent learning.
- Didactic lectures and online modules on the assessment of scientific literature, study designs, and statistical methods.
- Teaching of students, peers, and other health care professionals, with graduated supervision and feedback from supervising faculty.
- Active participation in departmental or institutional quality assurance or quality improvement activities with faculty supervision.
- Development, with mentorship, of a radiology research project, either using original research material or literature review

Assessment:
- Monthly faculty evaluations
- Research project
- Personal Performance Review form
- Critique of Journal Club presentations
- Procedure log

4. INTERPERSONAL AND COMMUNICATION SKILLS

Definition:
Communicate effectively with patients, colleagues, referring physicians and other members of the health care team concerning imaging appropriateness, informed consent, safety issues and results of imaging tests or procedures.

Skills:
- Provide a clear and informative written radiologic report, including the precise procedure, diagnosis whenever possible, a differential diagnosis when appropriate, and recommended follow-up or additional studies when appropriate.
- Provide direct communication to the referring physician or appropriate clinical personnel when the procedure reveals an urgent or unexpected finding and document this communication in the radiologic report.
- Demonstrate effective skills or face-to-face listening and speaking with physicians, patients, patients' families, and support personnel.
- Demonstrate appropriate telephone communication skills.
- Demonstrate skills in obtaining informed consent, including effective communication to patients about procedures, their alternatives, and possible complications.

Education (with Graduated Faculty Supervisions and Feedback):
- Participation as an active member of the radiology team by communicating face to face with clinicians, answering the telephone, providing consultations, problem solving, and decision making.
- Core Curriculum sessions and online modules
- Active participation (preparing and moderating) in multidisciplinary conferences.
- Practical experience in dictating radiologic reports, with critique.

Assessment:

- Monthly faculty evaluations
- 360o evaluations.
- Direct observation by faculty of invasive procedure patient encounters

5. PROFESSIONALISM

Definition:
Commit to high standards of professional conduct, demonstrating altruism, compassion, honesty and integrity. Follow principles of ethics and confidentiality and consider religious, ethnic, gender, educational and other differences in interacting with patients and other members of the health care team.

Skills:

- Demonstrate altruism: put the interests of patients and others above self-interest.
- Demonstrate compassion: be understanding and respectful of patients, their families, and the staff and physicians caring for them.
- Demonstrate excellence: perform responsibilities at the highest level and continue active learning throughout one's career.
- Be honest with patients and all members of the health care team.
- Demonstrate honor and integrity: avoid conflicts of interest when accepting gifts from patients or vendors.
- Interact with others without discriminating on the basis of religious, ethnic, sexual, or educational differences and without employing sexual or other types of harassment. Demonstrate knowledge of issues of impairment (i.e., physical, mental, and alcohol and substance abuse), obligations for reporting of impaired physicians, and resources and options for care of self-impairment or impaired colleagues.
- Demonstrate positive work habits, including punctuality and professional appearance. Demonstrate an understanding of broad principles of biomedical ethics.
- Demonstrate principles of confidentiality with all information transmitted during a patient encounter.

Education:

- Discussion of conflicts of interest and the ethics of conducting research during departmental or institutional conferences and daily clinical work.
- Training programs on the issues of harassment and discrimination.
- Didactic presentations on the recognition and management of the "impaired physician" through the GMEC.
- Participation in hospital-sponsored core curriculum educational activities (e.g. Lectures, Web-based programs).
- Didactic lecture or training program on the broad principles of medical ethics.
- Medicare Compliance Ethics Instruction

Assessment:

- Monthly faculty evaluations
- 360o evaluations.

- Conference attendance logs
- Direct observation by faculty of invasive procedure patient encounters

6. SYSTEMS-BASED PRACTICE

Definition:
Understand how the components of the local and national healthcare system function interdependently and how changes to improve the system involve group and individual efforts. Optimize coordination of patient care both within one's own practice and within the healthcare system. Consult with other healthcare professionals and educate healthcare consumers regarding the most appropriate utilization of imaging resources.

Skills:
Demonstrate the ability to design cost-effective care plans based on knowledge of best practices.
Demonstrate knowledge of the sources of financing for health care in the United States, including Medicare, Medicaid, the Department of Veterans Affairs and Department of Defense, public health systems, employer-based private health plans, and patients' personal funds.
Demonstrate knowledge of basic health care reimbursement methods.
Demonstrate knowledge of the regulatory environment, including state licensing authority, state and local public health rules and regulations, and regulatory agencies such as the Centers for Medicare and Medicaid Services and the Joint commission for the Accreditation of Healthcare Organizations
Demonstrate knowledge of basic practice management principles, such as budgeting, record keeping, medical records, and the recruitment, hiring, supervision, and management of staff.

Education:
- Attendance and active participation in departmental and multidisciplinary conferences to discuss the imaging evaluation of specific diseases and the most appropriate and cost-effective methods for establishing a diagnosis.
- Interaction with department administrators and knowledgeable faculty to gain an understanding of the costs of diagnostic examinations and the influence of the type of payer system on reimbursement.
- ACR/APDR online modules on billing, standards, appropriateness criteria, business issues, financial and legal issues.
- Membership and active participation in local and national radiologic societies.
- Participation in interdepartmental Internal Reviews
- Participation in the annual Radiology Planning Retreat
- Hospital / school / department committee service Assessment
- Monthly faculty evaluations
- Attendance logs for multidisciplinary conferences.
- Documented membership and participation in radiologic societies and other health care organizations.

GOALS AND OBJECTIVES BY LEVEL OF TRAINING

Goals and Objectives shall also be classified by level of training. Achievement of Goals and Objectives for individual levels of training shall be assessed by the following categories.

1. Introductory--the resident has observed at least one of the procedures and has seen or assisted another person performing the task.

2. Familiarity--the resident has seen the task performed enough times to accurately describe technical factors necessary for performance of the task and may have performed the task with supervision.

3. Competency--the resident has observed and performed the task with supervision enough times to be capable of performing the task with direct or indirect supervision, but without explicit direction.

4. Mastery--the resident has observed and performed the task with supervision enough time to be capable of performing the task without direct or indirect supervision

Initial Goals and Objectives (First 4 months of Residency training):

Patient Care:

- Accurately perform a focused history and physical examination on all patients. Understand and perform ankle-brachial indexes. Obtain informed consent on all patients
- Diligently review all relevant clinical data, e.g., available history, labs and imaging studies/interventions, prior to initiating an invasive diagnostic or therapeutic procedure. Make concise and accurate patient presentations before every procedure including a sedation analgesia written assessment as indicated.
- Round on all inpatients every morning before 8.00 AM and reliably handle the daily requirements of the inpatients in cooperation with the residents under faculty supervision. Understand endpoints for treatment of inpatients; formulate and execute a patient care plan. Show accuracy and completeness of dictated reports within 24 hours of procedure completion.

Procedural Skills:

- Learn the technical skills required for independent performance of minor procedures, such as PICC lines and drainage catheter checks. Acquire familiarity with the Seldinger technique for vascular access.
- Achieve competency with minor invasive procedures.
- Acquire familiarity with the role of first and second assistant for major diagnostic and interventional procedures.
- Understand the clinical relevance of catheter checks.
- Learn to address each problem
- individually, tailoring the performance of the diagnostic test to fit the clinical needs (not to perform diagnostic examination according to a category of tests without attention to the relevant question for each patient).
- Aggressively pursue opportunities for procedure observation and performance.

Knowledge and Academics:

- Read about and understand nature of disease process and methodology of intended procedure before each case (presumably done the night before).
- Involvement in weekly/fortnightly interdepartmental conference with vascular surgeons and hepatology/oncology.
- Involvement with morning conferences in Interventional Radiology. Attend and prepare presentations for weekly IR Conference held at 7:30 AM. This includes Mortality-Morbidity Conferences, didactic lectures, journal club, case presentations and discussions.
- Document all procedures in a digital reproducible format; critical for the CAQ's
- Mid-year Goals and Objectives (Second 4 months of Residency training)

Patient Care:

- Demonstrate initiative by being available at all times to talk to referring clinicians, organize the daily schedule ensuring minimum turnaround time in between procedures by calling for next patient during the case and understanding that we have a recovery room that can be used for pre-op as well as post-op care.
- Demonstrate willingness to perform additional duties that contribute to the overall patient care and academic interests of the section.
- Read about and understand nature of disease process and methodology of intended procedure before each case (presumably done the night before). Read and retain pertinent literature, including literature research for cases of particular interest.
- Procedural skills:
- Master the first assistant role during major interventions.
- Gain competency with basic diagnostic and interventional procedures, such as chest tube, biliary, nephrostomy tube placement, and with tube maintenance.
- Improved vascular access, including competency with selective catheterization above and below the diaphragm.
- Get familiarity of complex state-of-the-art interventions, such as percutaneous portosystemic shunting, chemoembolization, and revascularization of chronically occluded arteries.

Latter-Year Goals and Objectives (Last 4 months of Residency training):

Patient Care:

- Master clinical skills.
- Gain a thorough understanding of pathophysiology of vascular disease, noninvasive tests, hemodynamics, and angiograms.

Procedural Skills:

- Achieve mastery of all invasive diagnostic procedures, including first-order selective angiography, transhepatic cholangiography, biopsy, antegrade nephrostogram, venography, pulmonary angiography, nephrostomy placement, and biliary drainage.
- Acquire mastery with advanced interventions, such as vena cava filter placement, angioplasty, intravascular stent placement, central venous access, selective catheterization above the diaphragm, and TIPS.

Academics and Teaching:

- Participate during the Angio Lecture month (April), which is held once per year. Each resident will prepare a talk and present it to the radiology residents during Noon conference. Please be sure to make arrangements for coverage amongst yourselves when you are scheduled to present.

Research:

To maintain the academic rigor of the training, each resident is expected to participate with a minimum of one of the following:

- Abstract presentation at one major meeting Submit a major publication to a peer review journal
- Presentation during Grand Rounds or Noon Conference