

GOALS AND OBJECTIVES FOR THE INTEGRATED AND INDEPENDENT INTERVENTIONAL RADIOLOGY RESIDENCY PROGRAMS

INTRODUCTION:

The current paradigm of IR training typically involve 4 years of diagnostic radiology (DR) residency followed by an additional year of IR fellowship.

In September of 2012, the American Board of Medical Specialties (ABMS) approved a new field of residency training, the interventional radiology (IR) residency. The Accreditation Council of Graduate Medical Education (ACGME) added its approval in June of 2013. The result is a new pathway to becoming an interventional radiologist.

The major driver of this change has been the importance of nonprocedural patient care in IR, and therefore the need to provide this additional training. In addition, the practice of IR is now far more complex than in 1994, when a 1-year fellowship was adequate.

The Independent IR residency program format consists of two years IR residency that residents will enter only after successful completion of a 4 year DR program accredited by the ACGME or the Royal College of Physicians and Surgeons of Canada. The 1st year of the independent IR residency training will be more clinical oriented with rotations in the outpatient IR clinic, inpatient care, consultative care, and critically ill patients in the ICU. The last year of the independent IR residency will concentrate more on the technical aspects of the procedures with the continuous attention to the patient's care and follow up.

PROGRAM OVERVIEW

The educational program for the IR Residency at UTHSCSA consists of clinical rotations, our academic curriculum, and scholarly activities. While each of these programs is designed to address a different set of goals, all are under the direction of the IR Residency Program Director and are orchestrated to accomplish our common mission effectively through an organized set of objectives.

OVERALL COMPETENCY BASED GOALS AND OBJECTIVES

Overall program objectives are designed within the framework of the ACGME-defined Core Competencies. In order to achieve an appropriate level of competency in each area, we have designed specific activities and methods for assessment. We have constructed an outline that illustrates our approach to address each of the competencies. In each case, we define the area of competency; list the skill objectives in the area and educational programs offered, and methods to assess resident progress. Residents keep the form as well as assessment checklists in their Educational Portfolio and this basic outline becomes the structure for documenting their educational experiences. Their experiences are discussed with the Program Director or an Associate Program Director during the quarterly performance review sessions. The outline is as follows:

1. Patient Care

Definition

Provide patient care through safe, efficient, appropriately utilized, quality-controlled diagnostic and/or 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 diagnostic plan based on the clinical questions and relevant clinical, radiologic, and pathologic information.
- Oversee diagnostic imaging to ensure adequacy of studies performed.
- Counsel patients concerning preparation for diagnostic testing.
- 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 imaging procedures and employ measures to minimize radiation dose to the patient.
- Perform radiologic examinations appropriately and safely, assuring that the correct examination is ordered and performed.

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 diagnostic imaging for specific diagnostic questions.

Graded 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

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 radiologic studies in a clinical context to generate meaningful differential diagnoses.
- Demonstrate progressive acquisition of radiologic knowledge.
- Demonstrate knowledge of principles of research design and implementation.
- Generate a clinically appropriate diagnostic treatment plan.
- Demonstrate the ability to use all relevant information resources to acquire evidence-based data.
- Understand how radiologic equipment can be used to generate appropriate and diagnostic images.

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

- ACR In-Training examination scores and ABR examination.
- Monthly faculty evaluations
- Quarterly dictation tests
- Presentation and analysis of scientific articles at Journal Club

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
- Quarterly dictation test feedback
- Scholarly activity project
- Personal Performance Review form
- ACR in-service and ABR examination.
- 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 a precise 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 interpretation 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
- 360° evaluations.
- Quarterly dictation test feedback
- ABR examination
- 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 (ie, 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.”
- Participation in hospital-sponsored core curriculum educational activities (eg. Lectures, Web-based programs).
- Didactic lecture or training program on the broad principles of medical ethics.
- U.T. Risk Management Course
- Medicare Compliance Ethics Instruction

Assessment

- Monthly faculty evaluations
- 360° evaluations.
- Conference attendance logs
- Resident self-assessment.
- ABR examination.
- 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 and interventional 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
- ACR in-training examination and ABR examination.
- Attendance logs for multidisciplinary conferences.
- Documented membership and participation in radiologic societies and other health care organizations.