UTHSCSA Department of Radiology
Interventional Radiology Fellowship Program
Goals and Objectives

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

1. Procedure / case logs
2. Monthly faculty evaluations
3. 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

1. Monthly faculty evaluations
2. Presentation and analysis of scientific articles at Journal Club
3. 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
- 360^{o} 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 (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" through the GMEC.
- 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.
- Medicare Compliance Ethics Instruction

Assessment

- Monthly faculty evaluations
- 360^{o} 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.

I have received and read this document.

Signed_____ Date_____