

THE EDUCATIONAL PROGRAM

The principle goal of the UAMS Diagnostic Radiology Training Program is to meet or surpass the requirements of the ACGME Radiology Residency Review Committee in training competent and caring general radiologists who possess the knowledge, skills, and general competencies necessary to:

- 1) Pass the board examinations given by the American Board of Radiology (ABR).
- 2) Pursue a fellowship, enter private practice, or begin an academic career.
- 3) Practice radiology according to the standards set by the ABR, American College of Radiology (ACR) and other professional organizations.
- 4) Practice lifelong learning so they will be able to continually discover new knowledge in radiology.
- 5) Serve their patients and community in which they practice as competent professionals.

The goal is accomplished by:

- 1) Providing supervised graduated exposure to sufficient and varied case material.
- 2) Delivering an educational program that consists of one-on-one clinical teaching and performance feedback that is supplemented with lectures, conferences, case discussions, textbooks, ACR syllabi, journal articles, videotapes, teaching files, and suggesting reading lists.
- 3) Providing clinical teaching and clinical experiences that are designed to enable the resident to develop competence and confidence in image interpretation, consultation, performance of technical skills, and the general competencies expected of a professional practicing in diagnostic radiology.
- 4) Encouraging residents to participate in scholarly activity through medical student teaching; presentations at departmental and interdisciplinary conferences, regional or national meetings; peer-reviewed publication or presentation of original research; and membership in professional and scientific societies.

ACGME Program Requirements

This residency is fully accredited by the Accreditation Council for Graduate Medical Education (ACGME), and therefore is guided by ACGME Program Requirements for each specialty. It is the responsibility of the Program Director (Dr. Klein) to assure that we are in compliance with all program requirements. Compliance is monitored by accreditation site visits by the Residency Review Committee (RRC) for diagnostic radiology. When a program is in good standing, these occur every 5 years.

Program Requirements are modified from time to time and therefore our policies may sometimes change to maintain compliance. Residents will be kept informed of new Program Requirements when changes are needed.

You can review your program requirements by clicking on the following link.

http://www.acgme.org/acWebsite/RRC_420/420_prIndex.asp

General Competencies

In 2001, the ACGME added 6 general competencies to the program requirements for all accredited residencies in every specialty (see common program requirement V.B.), and in 2002, all residency programs were responsible for implementing a teaching and evaluation plan that covered these 6 areas of professional practice.

Patient Care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

Medical Knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Completion of ACLS is part of this competency.

Practice-Based Learning & Improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care

Interpersonal & Communication Skills that result in effective information exchange and teaming with patients, their families, and other health professionals

Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population (Completion of computer based modules in Ethics, Medical-Legal Issues and HIPAA training, found on the UAMS website is part of this competency.

Systems-Based Practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value

During your training, you will demonstrate competence in the 6 areas to the level expected of a new practitioner. Toward this end, we have defined specific knowledge, skills, and attitudes required by each rotation and we are providing educational experiences as needed in order for our residents to demonstrate competence in all 6 areas.

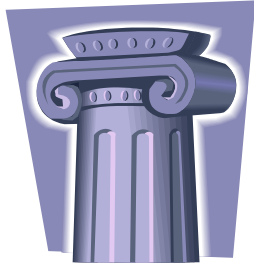
We also assess resident performance throughout the program and use assessment results to improve resident performance. We use dependable measures to assess competence in all 6 areas and we provide regular and timely performance feedback to residents.

Compliance with this program requirement is now a major emphasis during accreditation reviews. In 2005, a general competency section first appeared in the American College of Radiology in-training examination.

There are two aspects of each competency, and we provide teaching and assessment of both knowing/science (didactic teaching) and application (experiential learning). A summary of our teaching and evaluation activities by competency is provided on the following page. You can visit the following link for more information on the general competencies:

<http://www.acgme.org/Outcome/>

Pillars of Professional Practice



Acquire expert skills and knowledge through scholarly training & lifelong learning

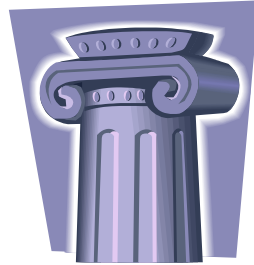
What you learn

Patient Care

Medical Knowledge

Clinical Teaching
 Clinical Experiences
 Performance Feedback
 Departmental Conferences, Lectures, Discussions
 Institutional Core Curriculum – *housestaff orientation, medical-legal, patient safety modules*
 Other Learning Activity – *AFIP, ACLS, reading assignments, teaching files*

Rotation ratings
 360° evaluation
 Evaluation committee ("REC")
 Focused observation and evaluation – *ability to perform and interpret studies*
 In-house written rotation exams
 80% or better on for-the-record core curriculum quizzes on medical-legal & patient safety modules
 Review of case/procedure logs
 Standardized exams



Place patient's interests above one's own

How you use what you know

Interpersonal & Communication Skills

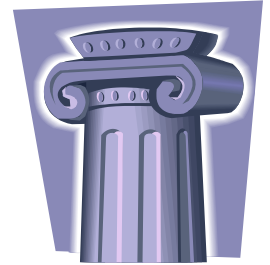
Professionalism

Learning Methods

Clinical Experiences
 Performance Feedback
 Departmental Conferences, Lectures, Discussions
 Individual or Group Projects - *presentations*
 Role Modeling
 Institutional Core Curriculum – *ethics modules*

Evaluation Methods

Rotation ratings
 360° evaluation
 Evaluation committee ("REC")
 Focused observation and evaluation – *team work, telephone etiquette, professional dress and demeanor, quality of written reports/consults; presentation skills*
 !!Residents' On-call evaluation!!
 80% or better on for-the-record core curriculum quizzes on ethics modules
 Licensure status



Self-regulate through ethical behavior and self-discipline

To make medical care better

Practice-Based Learning & Improvement

Systems Based Practice

Clinical Teaching – *you teach others*
 Clinical Experiences – *you identify knowledge gaps, find the information*
 Performance Feedback – *self-assessment*
 Departmental Conferences, Lectures, Discussions – *participate in PBLM (M&M) conference, research/journal club*
 Individual or Group Projects – *inter-departmental conferences, radiology societies and other health care organizations*
 Role Modeling

Rotation ratings
 360° evaluation
 Evaluation committee ("REC")
 Attendance records
 Focused observation and evaluation – *participation; ability to evaluate & improve patient care practices; EBM*
 Review of procedure log/patient outcomes
 Learning portfolio/scholarly work - *contribution to teaching file; Grand Rounds presentation; systems-based practice project reports; journal club*

- ACR In-training exams
- RAPHEX exam
- ABR written

Compliance with institutional,
departmental, and program policies

presentations

Medical student evaluations of teaching

Formal oral exam (ABR)

Formal oral exam (ABR)

Participation in evaluation processes

Formal oral exam (ABR)

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Conferences

Daily Conferences: "Noon" conferences are held daily from 1-2 p.m. Subspecialty conferences are held from 7-8 a.m. according to the following schedule:

Monday	Neuroradiology
Tuesday	Ultrasound
Wednesday	CT
Thursday	MRI

Attendance at daily conferences is mandatory!! The only excusable exceptions are residents who are post-call or a resident who is involved in a procedure and cannot break away. ACGME program requirements require that the program director monitor attendance and written proof of attendance is required at RRC site visits. Make a habit of signing the attendance book and please remind others to do so if they forget. If you have an "excused absence" (post-call, vacation, etc.) please note it on the sign-in sheet of the conference you miss. The program coordinator compiles attendance data for review during your semi-annual evaluation sessions.

In addition to the one-on-one teaching that occurs everyday, the staff of this residency program further demonstrate their commitment to resident education by presenting conferences on a regular basis. Without exception, the staff are experienced and knowledgeable in their field, approachable and receptive to questions. There is always a pearl or two to be gleaned from every conference. Conferences are either didactic or are case-based discussions and are held in the Radiology Conference Room unless otherwise noted.

Grand Rounds: Grand Rounds is a series of one-hour state-of-the-art lectures on radiology topics on the cutting edge of general practice or recent scientific advances. Each resident is responsible for preparing and presenting one Grand Rounds during the final of residency. All Grand Rounds presentations are peer reviewed independently and confidentially. Reviews are based on content and organization, appropriateness for the audience, selection of cases, communication and interpersonal skills, and use of visuals. Each year's top-rated presentation is announced at the annual Graduation Banquet.

Research/Journal Club: This conference is arranged by the chief residents on alternating months. It meets at 5:00 p.m. and dinner is served.

Visiting Professors: The goal of the Visiting Professors program is to enrich the teaching, clinical, and research experience of radiologists through exposure to internationally renowned expertise. On average, 8 visiting professors are scheduled to lecture each year. The program is coordinated by Dr. Sanjaya Viswamitra.

Diner Memorial Lecture in Radiology: This lecture series was initiated in 1989 by the radiology residents in memory of artist, medical illustrator, and facial prosthetist Jack

Diner. The series is supported by the Diner Fund that was established in honor of Wilma C. Diner, M.D., wife of Jack Diner and long-time program director of the radiology residency. The Diner Lecture is presented annually and provides residents with opportunities to meet prominent diagnostic radiologists.

Physics: All 1st-year residents are required to attend Physics and Radiobiology classes. All 2nd, 3rd and 4th year residents who have not passed Physics Boards attend a categorical course in Physics and Radiobiology during June – August.

Practice-Based Management Conference: The Practice Based Learning and Improvement conference (formerly M&M) is held monthly under the direction of the Interventional Radiology staff to present complications, missed cases and interesting cases of the month. The resident involved with the case presents a brief history of the patient, the events that transpired and the lesson to be learned by the case. Record of all cases is kept in a department database and also available to the hospital quality assurance committee.

Baptist Conference: Radiology Consultants, the private practice group at Baptist Hospital, invites residents for an interactive case-based conference after work once every other month. This is a low stress, enjoyable experience that emphasizes real-world practices and intermixes the atypical presentations to keep residents on their toes.

Clinical Rotations

The diagnostic radiology residency curriculum is organized into 11 subspecialty areas (the 9 subspecialty areas defined by the Program Requirements plus physics and cardiac imaging). Some subspecialty areas are covered on several rotations. For example, MSK radiology is covered on the “bone” rotation, CT, and MRI.

Area of Training	Duration of Rotation
Abdominal Imaging(GI/GU)	18 weeks
Breast Imaging	12 weeks
Computed tomography	18 weeks
Magnetic resonance imaging	12 weeks
Musculoskeletal, including CT	10 weeks
Neuroradiology	20 weeks
Nuclear radiology	22 weeks
Pediatric radiology	30 weeks
Thoracic, including cardiac & CT	6 weeks
Ultrasound	18 weeks
Vascular US	4 weeks
Vascular/Interventional radiology	16 weeks
Pathology/AFIP	6 weeks
Vacation (included in total)	12 weeks
Other (research, elective, etc.)	16 weeks
Total (weeks/months)	208 weeks

A qualified faculty member is responsible for each area of the subspecialty

curriculum. These faculty develop goals and objectives for their rotations by PGY level, and they orient the residents to their service. These faculty select the most appropriate teaching methods for delivering the curriculum, assessing resident performance, and evaluating the faculty. Improvements to rotations are expected, based on resident evaluation of the rotation and the faculty, as well as resident performance on board and in-service exams. These subspecialty directors are also members of the Resident Education Committee.

The curriculum is designed to teach medical knowledge and skills, as well as the attributes covered in the general competencies. Gradual and progressive acquisition of knowledge, skills and competencies, under appropriate faculty supervision is described separately for each PGY level rotation through the subspecialties. Suggested readings are provided for every rotation. At the start of each rotation, faculty provide the goals and objectives for the rotation and review them with the resident to be sure that expectations are clear.

Independent Learning & Scholarly Projects

Independent study by residents is guided and accomplished by several means. A state-of-the-art resident learning center contains an extensive computerized teaching file, a complete and updated library, the ACR teaching file, and an in-house teaching file.

Resident participation in research is encouraged. Departmental support may be given by special arrangement in the form of dedicated time for research. Editorial and media services are available in the department, and financial support is provided for presentations at meetings. Mentoring of individual residents is provided by a formal faculty advisor system, as well as through other relationships that form in an atmosphere of teamwork and collegiality.

Interdepartmental Conferences

Almost every patient in any of our many hospitals has some sort of radiological imaging done during his/her stay. Because of this, radiology is invited to many of the conferences held by our clinical colleagues to present the pertinent radiographic findings for a particular case. Conference assignments are printed on the monthly schedule and typically fall to residents of VA rotations since most of these are held at the VA, though they may include presentations of University patients. Two exceptions are the GI conferences, which requires that both the University and the VA residents attend, and CARTI conference that is assigned to each resident in turn throughout his/her residency.

The resident is responsible for obtaining the list of cases from the appropriate contact person, pulling the cases, reviewing them with staff and presenting them at the conference. A familiarity with the patient's radiology history and an understanding of the disease process is expected for an effective presentation. These conferences should be reviewed as an opportunity to shine, as the resident learns about the clinical issues, complications and post-imaging events that transpired. He/she is reminded of the patient behind the interesting case and is challenged to look beyond the black and white of the images to the shades of gray of the patient care.

Teaching Files

The RRC requires that each department maintain a resident developed Teaching File. Our department has a large film file generated by past residents, as well as the ACR film teaching file. However, we now use a web-based teaching file. Each resident is required to submit cases. Instructions will be given during orientation.

Research/Journal Club

Once each academic year, each resident presents an article he/she has chosen from any number of recognized radiology journals. To prepare, the resident consults with a staff member who shares interest in the topic and gives a copy of the article in advance to the resident coordinator to be distributed to all the staff and residents (electronic distribution is preferred). The resident presents the article to the group concisely, highlights the pertinent points and areas of current controversy, and is prepared to discuss the topic with the group. Residents who have prepared paper or posters or made presentations at a national conference are encouraged to share their research with their faculty and colleagues during this conference.

Practice Based Learning and Improvement

Each second year resident will be assigned an x - float rotation during which they will be assigned to "float" into various assignments on a daily basis to substitute for residents who are sick or on vacation. However, there will be some days when they are unassigned and will be able to use their time to complete a PBLI project. They will choose a topic and present a proposal to Dr. Klein in July. When the project is complete, it will be presented to the Department in a Grand Rounds format.

Grand Rounds

Each 4th-year resident is responsible for preparing and presenting one Grand Rounds on a topic relevant to Radiology, with a focus on recent scientific advances. Each 2nd-year resident will prepare and present a Grand Rounds on a Practice Based Learning and Improvement topic.

Institutional Core Curriculum

Accreditation requirements for residency/fellowship programs require that the College of Medicine provide a core curriculum include a review of ethics, medical-legal, and patient safety issues. The UAMS Graduate Medical Education Committee (GMEC) developed web-based courses to fulfill these requirements. All residents and fellows in accredited programs are **required to complete the 3 courses one time during their training time at UAMS** by scoring 80% on the for-the-record quiz contained in each module. You have an unlimited number of times to take the quizzes and the highest score will be recorded.

You will receive a certificate for each course you complete. Please keep a copy your certificates in your learning portfolio. Completion of the courses will be checked at the time of graduation and clearing from UAMS.

The courses are very easy. Each contains learning objectives and related information, selected references and links to other useful web sites, short case studies with multiple choice questions (quiz), and answers with feedback. The materials are of a general nature and supply basic knowledge that applies to all areas of clinical practice. You should find the information useful in your educational time here and in future medical practice and should be able to apply the principles learned in these courses to any specialty or subspecialty.

1. **Ethics:** This course includes seven modules - Informed Consent, Confidentiality, End-of-Life Issues, Ethical Responsibilities to Society, Research, Organ Donation, and Resource Allocation.
2. **Medical Legal:** This course includes six modules - Medical Malpractice, Arkansas Rights of the Terminally Ill or Permanently Unconscious Act, EMTALA, Informed Consent, Documentation, and Physician/Patient Relationship.
3. **Systems-Based Practice:** This course on patient safety has six modules – Disclosure, Performance Improvement, Utilizing Restraints, Medication Errors, Patient Safety and UAMS Emergency Incident Command System.
4. **SAFER course.** This course was developed by the American Academy of Sleep Medicine to educate residents on the effects of sleep deprivation.

To access the courses (if you have problems with access, call the UAMS Helpdesk at 686-8555):

1. From Internet Explorer go to <http://distance-ed.uams.edu>

Click "Log on to my WebCT" then type your username and password.

Username	Can be lastnamefirstname OR lastnamefirstnamemiddle initial
Password	all 9 digits of your social security number with no dashes.

2. This takes you to the "My WebCT" page. In the upper left-hand section, Click on the course that you wish to take.
3. Before you begin any of the modules, read the general information and instructions for completing the course found in "Begin Here."
4. Click on "Home" at the top center of the page.
5. Click on "Content Modules" and choose any module to begin.

Evaluation & Testing

Our program is transitioning to various forms of evaluation, and testing may be done at intervals. The ACGME now requires a variety of valid and reliable evaluations of each competency. Global faculty ratings (end-of rotation evaluations) and an annual 360° evaluation process are required across all competencies. The different types of evaluations used in this program are described below.

Global Faculty Ratings

End-of-rotation ratings of resident performance are provided to the program director by the faculty. The program director reviews the evaluations with the resident during the semi-annual meetings.

Learning Portfolio

This is a collection of evidence that learning has taken place during the residency. Each resident takes responsibility for the creation and maintenance of his/her portfolio. It should include sample work products such as dictations, journal club presentations, practice improvement activities, or systems-based improvement projects. Because the portfolio is based upon the real experience of the learner, it helps to demonstrate the connection between theory and practice, accommodating evidence of learning from different sources, and enabling assessment within a framework of clear criteria and learning objectives. The use of portfolios encourages autonomous and reflective learning which is an integral part of professional education and development. Please bring your logs to your semi-annual evaluation for review by Dr. Klein.

Annual 360° Evaluation

A method to assess interpersonal and communication skills, professional behaviors, and some aspects of patient care and systems-based practice (that is now required by the RRC). A survey or questionnaire is used to gather information about a resident's performance on a variety of topics: teamwork, communication, management skills, and decision-making. etc. Evaluators include superiors, peers, subordinates, and patients and their families. The rating scales assess how frequently a behavior is performed. The ratings are summarized for all evaluators by topic and also overall. Reproducible results are obtained when several evaluators rate examinees; a greater number of faculty and patients are needed for a greater degree of reliability.

On-Call Evaluation

ACGME requires formal teaching and evaluation of competence in professionalism. Because professionalism includes technical, intellectual, and emotional aspects, competence is not easily measured, but non-interpretive behaviors which are known to be assets in radiology group practice can be observed and rated. The "on call" environment provides a unique opportunity to observe these behaviors, and peer assessment provides insights and reinforces other forms of evaluation. In 2004, the program adopted peer "on call" evaluation as one assessment of the professional competence of radiology residents.

"It's a lot easier to be professional at 3:00 in the afternoon than at 3:00 in the morning."

Whit Goodwin, MD, 2005

Chief residents developed items that could be observed and rated (see below). Residents indicate "below expected level," "competent", or "above expected level" for each item. Lower level residents (LL) evaluate upper level residents (UL) and faculty with whom they worked on call; ULs evaluate LLs and faculty. Ratings are made via a web-based survey administered during the spring. Responses are confidential. Awards are given at the graduation banquet and names were engraved on a permanent plaque for the department.

Evaluation of Lower Level Residents

1. Communicates well with referring and consulting physicians.
2. Responds promptly to pages.
3. Demonstrates appropriate knowledge base progression.
4. Works well with staff and radiology techs.
5. Manages on-call time effectively.
6. Ability to manage stress on-call.
7. Works hard and is a team player.
8. Acts in a professional manner.
9. Offers to help team members who are busy.
10. Resident expressed interest in learning.
11. Provides patient-focused care in the Radiology department.

Evaluation of Upper Level Residents

1. Communicates well with referring and consulting physicians.
2. Works well with staff and radiology techs.
3. Manages on-call time effectively.
4. Ability to manage stress on-call.
5. Works hard and is a team player.
6. Teaches lower level residents when time permits.
7. Acts in a professional manner.
8. Demonstrates good knowledge base for level of training.
9. Provides timely reports of studies.
10. Treats lower level resident with respect.
11. Provides patient-focused care in the Radiology department.

Evaluation of On-Call Faculty

1. Manages on-call time effectively.
2. Acts in a professional manner.
3. Remains in-house an appropriate length of time.
4. Easily available for consultation when outside of hospital.
5. Provides patient-focused care in the Radiology department.

ACR In-training Examination

All residents are expected to take the ACR In-Training Exam every February. Admission to the residency program does not automatically mean satisfactory completion of it. Your progress based on monthly evaluations and test scores will be discussed with you by Dr. Klein twice a year and more often if necessary. You may

schedule a meeting with Dr. Klein at any time to discuss problems and progress. Your monthly evaluations are reviewed by Dr. Klein as they are received. Problems are addressed immediately. No news is good news. If you want to review your evaluations, they are kept in the program coordinator's office and are available to you at all times. As of 2005, general competency items have been added to ABR examinations.

RAPHEX Physics Examination

Physics and Radiobiology courses are important and probably require more intense study and preparation for written boards than the Diagnostic Radiology section. **DON'T WAIT UNTIL THE LAST SIX MONTH TO DO IT!** New ABR regulations allow residents to take the Physics portion of the written boards early in the 2nd, 3rd, or 4th year. Residents may take the diagnostic portion of the radiology boards early in the 3rd year or 4th year.

All residents are required to take the RAPHEX physics examination each spring until they have passed Written Boards in Physics.

Procedure/Case Logs

An important assessment method we use is a review of the number of cases or procedures performed by each resident compared against minimum numbers required by the RRC. The involved record-keeping by several means. Please bring your logs to your semi-annual evaluation for review by Dr. Klein.

HI-IQ Database

Radiology residents are required to document their procedure experience at UAMS, the VA, and ACH in the Radiology Department's HI-IQ Database, a standardized national database for tracking interventional radiology procedures. The database is supervised by the directors of Vascular/Interventional radiology, body CT/MRI, and neuroradiology.

The HI-IQ database is divided into 11 sections (e.g. arterial Dx, arterial Rx, GI, GU, dialysis, drainage, biopsy, etc.) Residents report all performed procedures on "code" sheets. Information collected includes patient name and medical record number, age, ASA status, diagnosis, indication, type of procedure(s), CPT codes, complications, and outcomes.

Residents will only receive credit for the procedure when the necessary paperwork is submitted and complete. This paperwork includes:

- 1 Patient Request Form (PPF) – standard bar-coded form used to dictate cases (required)
- 2 Billing/Coding Form – lists staff/resident information, diagnosis, CPT's, etc. (required)
- 3 Complications Form - to report type, severity, outcome (as needed)

These sheets should be filled out, stapled together in the above order and turned into Dr. Tim McCowan. Please be as accurate and complete as possible. If you have questions or problems, please contact the appropriate service director.

Personal Log

In addition, residents must keep a personal log of arthrograms, breast biopsies, and other invasive procedures not included in the HI-IQ database. You are responsible for keeping these records yourself.

The database is reviewed with the resident by the program director at each 6 month evaluation session to be sure residents are getting and documenting adequate

interventional experiences. At the end of the residency, residents will be given a complete list of all cases they performed, complications and outcomes.

Adam & Eve

The RRC has decided to review the number of cases/procedures by resident instead of by institution. Each resident's data must be entered on the ACGME website at least once an academic year, although it can be done daily, weekly, monthly, quarterly, or annually. The RRC will identify 11 select procedures (& codes) to be reported. Data should be retrievable from each institution's RIS system (will pull only cases resident dictated). The program will be online and optional 7/1/05, required 7/1/06.

Educational Resources

ACR Guidelines and Standards

The American College of Radiology periodically defines new practice guidelines and technical standards for radiologic practice to help advance the science of radiology and to improve the quality of service to patients throughout the United States. Existing practice guidelines and technical standards will be reviewed for revision or renewal, as appropriate, on their fifth anniversary or sooner, if indicated.

Each practice guideline and technical standard, representing a policy statement by the College, has undergone a thorough consensus process in which it has been subjected to extensive review, requiring the approval of the Commission on Quality and Safety as well as the ACR Board of Chancellors, the ACR Council Steering Committee, and the ACR Council. The practice guidelines and technical standards recognize that the safe and effective use of diagnostic and therapeutic radiology requires specific training, skills, and techniques, as described in each document. Reproduction or modification of the published practice guidelines and technical standards by those entities not providing these services is not authorized.

These guidelines are an educational tool designed to assist in providing appropriate radiologic care for patients. They are not inflexible rules or requirements of practice and are not intended, nor should they be used, to establish a legal standard of care. The ACR cautions against the use of these guidelines in litigation in which the clinical decisions of a practitioner are called into question.

The practice of medicine involves not only the science, but also the art of dealing with the prevention, diagnosis, alleviation and treatment of disease. The variety and complexity of human conditions make it impossible to always reach the most appropriate diagnosis or to predict with certainty a particular response to treatment. It should be recognized, therefore, that adherence to these guidelines will not assure an accurate diagnosis or a successful outcome. All that should be expected is that the practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of these guidelines is to assist practitioners in achieving this objective.

Appropriateness Criteria

ACR Appropriateness Criteria™ are used by radiologists, radiation oncologists and referring clinicians throughout the United States to help make well-informed decisions about initial radiologic tests and therapeutic procedures. Ten expert panels, comprising physicians from 15 medical specialties, participated in their development.

The American Board of Radiology (ABR)

The American Board of Radiology (ABR) conducts the written and oral board exams for Diagnostic Radiology. Board certification is not required for completion of the Diagnostic Radiology residency. However, board certification is becoming increasingly important because it is required by most HMO's for reimbursement. Many hospital departments and groups require it before receiving hospital privileges.

Therefore, all residents choose to take boards before leaving their residency and

almost all will complete the program as board certified radiologists.

Please check the ABR website at www.theabr.org for information regarding the oral and written boards. Be sure to comply with application deadlines when you choose to take the boards.

In addition, the ABR administers the In-Training Exam for residents every February. All residents are required to take this test. Scores are useful to residents as well as the program director and teaching staff for determining areas of strength and weakness. Scores correlate fairly well with written board scores.

TEACHING METHODS

Teaching and Learning in Radiology occur in many different ways. The most important is probably during one-on-one or small group discussions at the view box or in the procedure room. These occur every day. The resident is encouraged to develop his/her teaching skills by gradually assuming the role of teacher with medical students, technologists, clinicians and patients and families. Effective teaching staff should be used as role models. Skill in this type of teaching will be useful to residents after they finish the program and practice academic or private practice settings. Your progress in developing this skill will be evaluated monthly.

Formal didactic lectures are also used to deliver information to many people at once. This type of lecture is used at many noon conferences, as well as in the Senior Elective for medical students at UAMS, offered by our department. Residents will gain experience with this type of educational method by preparing a 1 hour lecture to 4th year medical students monthly beginning in the spring of the 1st year. Feedback from evaluations by Medical students will be given twice a year. An award for the Best Resident Teacher of Medical Students will be given annually at the Resident Graduation Banquet.

In addition, each resident is required to prepare and present a "Grand Rounds" type lecture on the topic of their choice to be given to the department during their third year. Scheduling is done by the Chief Residents. Evaluation and feedback are provided by the Program Director. Some job interviews request formal conference presentation. This lecture may come in handy when you interview.

Case presentations are also effective teaching tools in radiology. Residents develop case presentation skills while presenting at interdepartmental conferences. Many residents also participate in "Corpse" presentations to 1st year medical students taking Gross Anatomy. Residents participate in the monthly Department of Radiology Practice-Based Management conference once or twice during their residency. Each month, once section will present a short research project. Residents will participate in data collection and presentation to the department and the resident group. This activity is part of resident education in Practice Based Management.

If any resident desires to take formalized courses in Educational Methods, these are occasionally available at UAMS and time to attend will be arranged.

Written materials regarding Educational Methods is available in the Resident Library and in the Program Director's Office.

