

JUSTIFICATION / IMPACT STATEMENT
PROPOSED Major Revisions to the Program Requirements for Diagnostic Radiology

The following questions must be addressed in the Impact Statement for each area where substantive change is proposed.

a) Impact on Resident Education

How will the proposed change improve the quality of resident education?

Please note narrative sections below.

b) Impact on Patient Care

How will the proposed change affect the way the resident, the service, and the staff provide patients with continuing care?

Please note narrative sections below.

c) Impact on Faculty Resources

Will an increase in the number of faculty from within the discipline or from other disciplines be required? If so, please explain.

An increase in faculty coverage may be required to provide adequate supervision of residents during the extended 6-month period (total 12 months) prior to residents taking independent call. Whether additional faculty members will be needed will be a decision of the department.

d) Impact on Institutional Facilities, Services, and Faculty

(1) Will there be required institutional resources for the educational or service unit as a result of the proposed change? **NA**

(2) Will there be any additional costs to the institution(s) in this regard? If so, please explain.

There may be cost implications to the institution to provide coverage for the extended 6-month period prior to residents taking independent call.

e) Impact on Other Services and Educational Programs in the Institution

(1) If these changes are implemented, will there be an adequate volume and variety of patients to provide proper educational resources in the institution(s)?

The Committee does not believe that an increase in volume and variety of patients will be required.

- (2) How will other services or departments of the institution be affected by the change?

The Committee does not believe that the proposed revisions will affect change for any other service or department.

- f) Implementation

What is the effective date of this proposed change? Please justify the requested effective date based upon the need for faculty, institutional services, financial, or other support.

**The effective date for implementation of the proposed revisions is
July 1, 2007.**

Introductory Statement

In 2005, Dr. Kay Vydareny, Chair of the RRC for Diagnostic Radiology, requested RC staff to schedule a third meeting of the Residency Review Committee solely for the purpose of discussing proposed revisions to the current core diagnostic radiology program requirements.

At the beginning of the two and a half day session, the Committee divided into subgroups, each assigned the task of evaluating a section of the program requirements. The subgroups were asked to focus recommended changes on improvements to residency training in radiology; change for the sake of change was discouraged.

The full Committee convened and carefully considered and debated the recommendations from each subgroup, and in most cases reached consensus. In the occasional case where there was not agreement, a majority vote of the Committee members was the arbiter. During this process, the subgroups and the Committee as a whole, assisted by ACGME staff, worked diligently to fully incorporate the general competencies into the curriculum and into the process of resident evaluation.

Following the meeting, a draft of the requirements including proposed revisions was prepared by staff and reviewed at the RC's April 20-23, 2006 meeting. Minor additions were approved, and a final review of the document occurred at the October, 2006 RC meeting.

The Committee believes that there are no changes in the proposed revisions that will impact other specialties. Rather, the recommended changes are designed to clarify and eliminate confusing or non-validated existing radiology requirements. In addition, there is an emphasis on the 1) importance of research to the specialty, and 2) on improving patient safety in response to national concerns.

Each major change in program requirements is listed below, with an analysis as to impact on education, patient care, faculty resources, institutional resources, and other institutional

services and educational programs. The proposed implementation date for the revised program requirements in diagnostic radiology is July 1, 2007.

Proposed Major Changes in the Program Requirements

Key changes are indicated by an asterisk (*)

Section I.B., lines 52-54

1. During the four years of residency training, the maximum period of training in any one of the 9 subspecialty areas shall be 15 months.

The prior limitation was for 12 months in any one subspecialty area. The RC believes that relevance of a radiologist's training can be enhanced by allowing greater concentration in a chosen subspecialty area.

Section II.B.3, lines 116-120

2. The program should be based at a primary hospital. A program using multiple hospitals must ensure the provision of a unified educational experience for the residents. Each participating institution must offer significant educational opportunities to the overall program.

The requirement for identifying participating institutions as "integrated" and "affiliated" hospitals has been deleted, as well as a defined maximum number of months that may be scheduled at each institution. The program simply needs to be based in a primary hospital, and rotations to other institutions (participating) must be justified as 'educational experiences'. This change allows more flexibility for programs to place residents in a variety of community areas of strength/excellence. The Committee anticipates that this change will provide greater flexibility to smaller programs.

Section III.A.3.a., lines 155-157

3. Program directors are no longer required to have at least 3 years of participation as an active faculty member in an accredited residency program.

The Committee believes that qualified program directors may be identified shortly after completing a residency, and may not need the experience as an active faculty member prior to accepting a position as program director. Programs should be able to select such individuals without a 3-year waiting period.

Section III.B.1., lines 227-230

- *4. The requirement for one FTE faculty per resident is deleted.

The Committee believes that there was no valid data in support of the requirement for defining the resident/faculty ratio as one faculty member per resident. Rather, the Committee felt that adequate educational experiences required the presence of

at least 1 full-time equivalent, appropriately qualified and experienced faculty member for each of the designated subspecialty areas in diagnostic radiology.

Section III.B.1., lines 232-234

5. For programs not affiliated with a medical school, all faculty must be members of the medical staff of at least 1 of the participating institutions.

The requirement that radiologists involved in training radiology residents should be on the medical staff of at least one of the participating hospitals is designed to ensure that the program director has a necessary level of oversight of those individuals providing training. This is currently in place for most programs.

Section III.B.1., lines 236-237

6. There must be at least one FTE physician faculty in each of the 9 subspecialty areas.

Rotations during radiology training are typically within the subspecialty areas, and with less than 1 FTE faculty member during such rotations, the resident may be left without proper teaching and supervision. Since current program requirements are for a minimum of 8 residents, current minimum faculty level is also 8 FTEs. This recommended change increases the minimum faculty size to 9 FTEs. The pediatric radiologist, however, may be practicing at an institution where the residents rotate for their experience in pediatric radiology. It is unlikely that programs will need additional resources, as most small programs have pediatric radiology rotations outside the primary institution, and one of the pediatric radiologists at that rotation site will suffice for the required full-time faculty member in pediatric radiology.

Section III.D.3, lines 372-378

7. The requirement for maintaining and enhancing an in-house teaching file is deleted.

The ready availability of the ACR teaching file (or its equivalent) on DVDs precludes the necessity for maintaining an in-house teaching file. Most programs currently purchase and maintain the ACR file (or equivalent), so this should not require additional resources. In fact, the personnel and time necessary to maintain an in-house teaching file are no longer required. However, a well-maintained and continually enhanced file of teaching cases from the institutions associated with the residency program would be a very definite plus for resident education.

Section V.B.1a., lines 490-492

8. The requirement for 75,000 total radiological exams for the program is deleted.

The requirement for 7000 exams/resident/year is retained. The requirement for 75,000 total radiological exams for the program had no relation to the requirement for exams per resident per year, and is thus being deleted.

Section V.B.1.c, lines 519-530

9. Specific curricular requirements for the nuclear medicine rotation are added.

The specific changes in the nuclear medicine curriculum are dictated by the Nuclear Regulatory Commission, and reflect the requirements specified to be an authorized user of radionuclides.

Section V.B.1.h., lines 571-577

10. The program must participate in the ACGME Case Log system.

Required participation in the ACGME Case Log system should be beneficial in that it will allow establishment of benchmarks for resident participation in case review, interpretation, and dictation. It will also enable the program to track individual residents to make certain that each has sufficient experience in each subspecialty. Compliance will be relatively easy for most programs. Only those programs without a modern RIS (Radiology Information System) will have difficulty compiling this data.

Section V.B.2.a.(1), lines 590-607

- *11. Subspecialty chiefs must organize didactic lecture series for their subspecialty areas and the program director must organize didactic components for the general areas of diagnostic radiology. These are to be repeated at least every 2 years.

Section V.B.2.a.(3), lines 705-706

12. There must be at least 5 hours per week of conferences/lectures, and residents must have protected time to attend.

These changes are complementary (#11, #12). It is essential that during the 4 years of radiology training there be a mechanism to ensure that each resident is exposed to the spectrum of disease conditions within each subspecialty of radiology. A core didactic curriculum for the 9 subspecialty areas of radiology and for the more general content (e.g. radiologic physics, radiation safety), ensures that there will be no gap in knowledge. Further, there should be a minimum of 5 hours of conference/lectures each week during which this and other material is presented, and the resident must be granted protected time to attend. Preparation of the didactic core material will place an additional burden on those subspecialty chiefs and program directors who have not already done so. Freeing the residents to attend conference will also require additional time on the part of the faculty to cover busy services during scheduled conferences.

Section V.C., lines 800-809

- *13. Residents must have training in critical thinking skills and research design, and must engage in a scholarly project under faculty supervision. Results must be

published or presented at institutional, local, regional, or national scientific meetings.

Involvement in some variety of research and the learning of critical thinking skills is necessary for the growth of diagnostic radiology as a specialty and to prepare the resident so that he/she will be able to critically review the literature. This proposed requirement formalizes the process and the outcome. This requirement presumes that there will be at least one faculty member in each program capable of mentoring the residents in their projects, and may result in the requirement for additional training for faculty in some community hospital programs.

Section VI.A.1., lines 870-876

- *14. Residents must have a minimum of 12 months of training in diagnostic radiology prior to independent on-call responsibilities.

The requirement for 12 months of educational experiences in diagnostic radiology before assuming independent on-call responsibilities is an increase from the currently required 6 months. This change reflects the national emphasis on patient safety. During 6 months of training, residents cannot be exposed to standard 4-week rotations in all subspecialty areas of radiology. Further, there can be little debate that residents will be more accurate in formulating preliminary interpretations if they have 12 rather than 6 months of exposure to the specialty.

The fact that residents become more accurate in direct relationship to length of training is supported by raw data from the American College of Radiology Inservice Exam, taken annually by most PGY-2, PGY-3, and PGY-4 radiology residents. This data is available for 2005 and 2006, and shows a steady increase with each year of training in the mean percent of correct answers, from 59.5 to 65.9 to 69.7 respectively in 2005 and from 49.0 to 54.9 to 58.8 respectively in 2006. Further, review of the Program Requirements for the specialties of Internal Medicine and General Surgery indicates requirements for constant supervision for first-year residents by more senior residents. Obstetrics/Gynecology requires in-house supervision of residents by a faculty member.

Compliance with this proposed requirement will be most difficult for programs with a small complement of residents. Additional resources on the part of the department or institution may be necessary to supplement coverage.

Section VI.A.1., lines 880-881

- *15. All cases preliminarily interpreted by residents must be reviewed by faculty within 24 hours.

The previous requirement stated that cases preliminarily interpreted by residents be reviewed by faculty. The proposed change requires that the review must occur within 24 hours or less.

Section VII.A.1.a., line 1016-1017

16. 360 evaluations will be required for the competencies of interpersonal skills/ communication and professionalism.

Section VII.A.1.a, lines 1018-1065

17. Each resident must develop and maintain a learning portfolio.

Section VII.A.1., lines 1033-1034

18. Residents must be given an objective test annually.

These changes (#16, #17, #18) are all consequential to the incorporation of the general competencies into the didactic component of the curriculum and into the process of evaluating resident performance. Developing and maintaining a learning portfolio will require time and commitment on the part of the resident, but this methodology will serve the resident well not only during training, but as he/she enters a program of Maintenance of Certification. 360 degree evaluations are common in most training programs currently. As noted above, most residents in diagnostic radiology are already required to participate in objective annual testing, including the ACR Inservice Examination during the first 3 years of radiology training, supplemented by the written and oral examinations of the American Board of Radiology. The Committee fully supports the implementation of the learning portfolio as an assessment tool in evaluating compliance with the general competencies.

Section VII.C.2, lines 1140-1144

- *19. During the most recent 5-year period, at least 50% of a program's graduates should pass the oral examination either on the first attempt or rectify a single condition at the first opportunity.

This changes the current requirement for 50% of a program's graduates, averaged over the prior 5 years, to pass the oral board exam of the American Board of Radiology on the first attempt. The RRC believes that the expanded definition of 'pass' will more accurately reflect the quality of the candidate's residency program.

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