

ACGME Program Requirements for Graduate Medical Education in Nuclear Radiology

Effective: January, 2005

In addition to complying with the Program Requirements for Graduate Medical Education in the Subspecialties of Diagnostic Radiology, programs must comply with the following requirements, which may in some cases exceed the common requirements.

I. Introduction

I.A. Definition and Scope of the Specialty

Nuclear radiology is defined as a clinical subspecialty of radiology involving the diagnostic and therapeutic use of radioactive materials using unsealed sources. The three basic applications include:

- I.A.1. diagnostic imaging by external detection of radionuclides and/or bio-distribution by external detection of radionuclides in the body;
- I.A.2. diagnostic in-vivo or combination in-vivo/in-vitro procedures that involve the administration and detection of radioactivity by non-imaging methods; and,
- I.A.3. therapeutic administration of radionuclides (excluding sealed sources).

I.B. Duration and Scope of Education

The program shall offer 1 year of graduate medical education in nuclear radiology.

I.C. Prerequisite Training

The year of nuclear medicine training should follow successful completion of a diagnostic radiology residency accredited by the Accreditation Council for Graduate Medical Education (ACGME) or the Royal College of Physicians and Surgeons of Canada (RCPSC) or other training judged suitable by the program director.

II. Institutional Organization

- II.A. A training program in nuclear radiology will be accredited only in those institutions that have an accredited training program in diagnostic radiology.
- II.B. The nuclear radiology program will be reviewed and accredited in conjunction with the review and accreditation of the residency program in diagnostic radiology.
- II.C. Those aspects of institutional support that pertain to residencies in diagnostic radiology shall also apply to programs in nuclear radiology; e.g., administrative support, facilities, and clinical resources.

III. Faculty Qualifications and Responsibilities

- III.A. The program director is responsible for the instructional program and for supervision of the nuclear radiology fellows.
- III.B. The program director shall be certified by the American Board of Radiology in Diagnostic Radiology or Radiology and have subspecialty certification (CAQ) in Nuclear Radiology; or shall be certified by the American Board of Nuclear Medicine; or possess qualifications judged acceptable by the RRC for Diagnostic Radiology.
- III.C. It is desirable that faculty members be certified in boards appropriate to those areas in which they are assigned to instruct and supervise fellows.
- III.D. They must contribute sufficient time to the program to provide adequate instruction and supervision.
- III.E. A faculty (nuclear medicine physician)-to-fellow ratio of 1:2 should adequately provide for teaching and supervisory responsibilities.

IV. Facilities and Resources

State-of-the-art nuclear imaging, including positron emission tomography (PET) and radiation detection equipment, should be available for instructional purposes.

V. Educational Program

The educational program must provide for well-balanced and progressive participation of the fellow through examination of a diverse patient population, with continuous teaching and an active research effort in nuclear radiology.

V.A. Clinical Component

- V.A.1. The training program shall include graduated study, experience, and responsibility in all facets of nuclear radiological diagnosis and therapy, medical nuclear and diagnostic radiological physics, radiobiology, health physics and protection, nuclear medical instrumentation, radiopharmaceutical chemistry and instrumentation, clinical applications of nuclear radiology, and pathology.
- V.A.2. The program must provide adequate opportunity for a fellow to participate in and personally perform a broad range of nuclear radiological procedures, including PET scanning.

V.B. Didactic Components

- V.B.1. Formal instruction is required in:
 - V.B.1.a) diagnostic radiologic and medical nuclear physics;

- V.B.1.b) instrumentation;
- V.B.1.c) radiation protection and safety;
- V.B.1.d) radiobiology;
- V.B.1.e) conventional radionuclide imaging;
- V.B.1.f) molecular imaging;
- V.B.1.g) fusion imaging;
- V.B.1.h) diagnostic in-vivo or combination in-vivo/in-vitro procedures;
- V.B.1.i) therapeutic administration of radionuclides; and,
- V.B.1.j) radiopharmaceutical chemistry.

V.B.2. Appropriate emphasis must be placed on the educational value of teaching rounds and conferences. In addition, there should be frequent correlative and interdepartmental teaching conferences.

V.C. Research

V.C.1. The program should provide an environment in which the fellow is encouraged to engage in investigative work with appropriate faculty supervision.

V.C.2. Documentation of this environment should be made in the application and indicated by papers published by fellows and/or clinical faculty.

V.D. Teaching File

A teaching file of images referable to all applicable aspects of nuclear radiology must be available for use by fellows. This file should be indexed, coded, and regularly maintained.

V.E. Supervision

The responsibility or independence given to fellows should depend on their knowledge, skills, and experience. Additional personnel must be available within an appropriate time interval to perform or to supervise procedures.

ACGME Approved: June 2004

Effective: January 2005