INTRODUCTION

A university wishing to have an accredited program in Nuclear Medicine must also sponsor accredited programs in Diagnostic Radiology and Internal Medicine.

The purpose of this document is to provide program directors and surveyors with an interpretation of the general standards of accreditation as they relate to the accreditation of programs in Nuclear Medicine. This document should be read in conjunction with the General Standards of Accreditation, the Objectives of Training and the Specialty Training Requirements in Nuclear Medicine.

STANDARD B1: ADMINISTRATIVE STRUCTURE

There must be an appropriate administrative structure for each residency program.

Please refer to Standard B 1 in the General Standards of Accreditation for the interpretation of this standard.

STANDARD B2: GOALS AND OBJECTIVES

There must be a clearly worded statement outlining the goals of the residency program and the educational objectives of the residents.

The general goals and objectives for Nuclear Medicine are outlined in the Objectives of Training and the Specialty Training Requirements in Nuclear Medicine. Based upon these general objectives each program is expected to develop rotation-specific objectives suitable for that particular program, as noted in Standard B 2 of the General Standards of Accreditation.

STANDARD B3: STRUCTURE AND ORGANIZATION OF THE PROGRAM

There must be an organized program of rotations and other educational experiences, both mandatory and elective, designed to provide each resident with the opportunity to fulfill the educational requirements and achieve competence in the specialty.

The structure and organization of each accredited program in Nuclear Medicine must be consistent with the specialty training requirements as outlined in the Objectives of Training and the Specialty Training Requirements in Nuclear Medicine.

Residents must be provided with increasing individual professional responsibility, under appropriate supervision, according to their level of training, ability, and experience.
STANDARD B4: RESOURCES

There must be sufficient resources including teaching faculty, the number and variety of patients, physical and technical resources, as well as the supporting facilities and services necessary to provide the opportunity for all residents in the program to achieve the educational objectives and receive full training as defined by the Royal College specialty training requirements.

In those cases where a university has sufficient resources to provide most of the training in Nuclear Medicine but lacks one or more essential elements, the program may still be accredited provided that formal arrangements have been made to send residents to another accredited residency program for periods of appropriate prescribed training.

Learning environments must include experiences that facilitate the acquisition of knowledge, skills, and attitudes relating to aspects of age, gender, culture, and ethnicity appropriate to Nuclear Medicine.

1. Teaching Faculty

There must be a sufficient number of qualified teaching staff to supervise residents at all levels and in all aspects of the specialty. The teaching staff should have an appropriate number of faculty certified in Nuclear Medicine by the Royal College.

2. Number and Variety of Patients

Adequate in-patient and ambulatory care facilities must be available for the clinical investigation, treatment and follow-up of patients so that the complete range of referrals to a Nuclear Medicine Department is obtained. Residents must have access to a wide variety of patients ranging from those acutely ill to those being investigated on an out-patient basis in order to ensure that residents gain adequate experience in the selection of appropriate techniques and interpretation of studies under a variety of urgent, emergency and ambulatory conditions.

3. Nuclear Medicine Services

The residency program must ensure that each resident obtains experience in:

   a. Imaging: Planar and tomographic single photon patient studies including static and dynamic imaging, PET patient studies, hybrid or fused patient studies, and quantitative techniques used in these modalities;

   b. Radioisotopes: Use in imaging and non-imaging procedures;

   c. Bone Densitometry;

   d. Radionuclide Therapy;

   e. Pediatric Nuclear Medicine; and

   f. Consultation with referring physicians.
4. Supporting Facilities and Services

The following facilities and services must be available, either within the program or by arrangement with other programs or institutions, and closely coordinated with the overall residency program:

a. an accredited program in Diagnostic Radiology;

b. an accredited program in Internal Medicine;

c. an active teaching service in surgery providing opportunities for the collaborative management of patients undergoing investigation and treatment;

d. an active teaching service in pathology with provision for the study of relevant pathological material, and adequate instruction in clinico-pathological correlation with the findings of imaging techniques;

e. intensive care units, emergency facilities, and ambulatory care facilities serviced by Nuclear Medicine; and

f. a radiopharmacy or “hot lab” with dedicated personnel.

STANDARD B5: CLINICAL, ACADEMIC AND SCHOLARLY CONTENT OF THE PROGRAM

The clinical, academic and scholarly content of the program must be appropriate for university postgraduate education and adequately prepare residents to fulfill all of the CanMEDS Roles of the specialist. The quality of scholarship in the program will, in part, be demonstrated by a spirit of enquiry during clinical discussions, at the bedside, in clinics or in the community, and in seminars, rounds, and conferences. Scholarship implies an in-depth understanding of basic mechanisms of normal and abnormal states and the application of current knowledge to practice.

Please refer to Standard B5 in the General Standards of Accreditation, the Objectives of Training, the Specialty Training Requirements in Nuclear Medicine, and the CanMEDS Framework for the interpretation of this standard. Each program is expected to develop a curriculum for each of the CanMEDS Roles, which reflects the uniqueness of the program and its particular environment. Specific additional requirements are listed below.

1. Medical Expert

In addition to the General Standards of Accreditation, the following requirements apply:

The academic program must include organized teaching in the basic and clinical sciences and advanced clinical and scientific knowledge related to Nuclear Medicine, including:

- physics,
- radiobiology,
- radiation protection and radiation safety,
- radiopharmacy,
- instrumentation,
- statistics,
• anatomy, and
• pathology.

2. Communicator

In addition to the General Standards of Accreditation, the resident will be provided with the opportunity to learn specific communications skills in order to:

• Direct technologist staff to tailor investigation
• Provide imaging findings and interpretation by discussion with referring physicians
• Produce a concise and relevant report of the imaging procedure
• Obtain informed consent as needed

3. Collaborator

In addition to the General Standards of Accreditation, the resident will be provided with the opportunity to learn specific skills in order to:

• Work with the health care team to optimize patient care by ensuring high quality procedures and timely examinations

4. Manager

In addition to the General Standards of Accreditation, the resident will be provided with the opportunity to learn specific skills in order to:

• Work with and direct a team of associated health personnel, including technologists, physicists and radiochemists or radiopharmacists
• Be able to direct imaging quality control
• Understand budgetary issues in Nuclear Medicine services

5. Health Advocate

In addition to the General Standards of Accreditation, the resident will be provided with the opportunity to learn specific skills in order to:

• Promote the use of radionuclides for diagnosis and treatment to maximize patient benefit, while minimizing risk to patients and staff (ALARA – As Low As Reasonably Achievable)

6. Scholar

The General Standards of Accreditation apply to this section.

7. Professional

The General Standards of Accreditation apply to this section.

**STANDARD B6: EVALUATION OF RESIDENT PERFORMANCE**

There must be mechanisms in place to ensure the systematic collection and interpretation of evaluation data on each resident enrolled in the program.
Please refer to Standard B6 in the General Standards of Accreditation for the interpretation of this standard.

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