

2012

INTRODUCTION

A university wishing to have an accredited program in Orthopedic Surgery must also sponsor an accredited program in General Surgery.

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 Orthopedic Surgery. This document should be read in conjunction with the *General Standards of Accreditation* and the *Objectives of Training* and the *Specialty Training Requirements in Orthopedic Surgery*.

STANDARD B1: ADMINISTRATIVE STRUCTURE

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

Please refer to Standard B1 in the *General Standards of Accreditation* for the interpretation of this standard. In addition to the general standards that apply to all programs, the program director in Orthopedic Surgery must be a member of the university committee responsible for Surgical Foundations.

The program director must have Royal College or Collège des médecins du Québec certification in Orthopedic Surgery, or equivalent acceptable to the Royal College.

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 Orthopedic Surgery are outlined in the *Objectives of Training* and the *Specialty Training Requirements in Orthopedic Surgery*. Based upon these general objectives, each program must develop rotation specific objectives, suitable for that particular program, as noted in Standard B2 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 Orthopedic Surgery must be consistent with the specialty training requirements as outlined in the *Objectives of Training* and the *Specialty Training Requirements in Orthopedic Surgery*.

The program must be organized such that residents are given graded responsibility, under appropriate supervision, according to their residency level, ability and experience for the management of surgical patients.

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 Orthopedic Surgery 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 Orthopedic Surgery.

1. Teaching Faculty

There must be a sufficient number of qualified teaching staff acceptable to the Royal College to supervise residents at all levels and in all aspects of the specialty and provide teaching in the basic and clinical sciences related to the specialty. The teaching faculty should possess sufficient knowledge of all specialized areas within Orthopedic Surgery so that terminal objectives for the residents can be met.

Residents must have access to teaching faculty cognizant of the non-surgical management of diseases of the locomotor system, including the sequelae of metabolic bone disease and common arthritic conditions.

It is desirable for the orthopedic teaching faculty to include individuals with the ability to teach and supervise residents in basic science and epidemiology

2. Number and Variety of Patients

There must be a sufficient number and variety of patients to ensure residents have broad experience in all common aspects of orthopedic care, such that they may attain the objectives as outlined in the *Objectives of Training* and the *Specialty Training Requirements*.

3. Clinical Services Specific to Orthopedic Surgery

There must be adequate resources and supervision for the resident to gain competencies in the care of patients in the following settings:

a) Inpatient

There must be adequate volume and variety of patients and appropriate clinical supervision of the inpatient clinical teaching unit to develop proficiency in:

- peri-operative care
- management of post-operative complications
- acute rehabilitation
- discharge planning
- inpatient consultations to other specialties

There must be adequate operating room time and appropriate facilities to provide graded surgical responsibility for residents in the program.

b) Ambulatory

- i) Outpatient clinics or offices in which residents act as orthopedic consultants are essential in order for the residents to experience the outpatient management of common musculoskeletal conditions.
- ii) Clinics must be structured so that the resident examines patients scheduled for elective reconstructive orthopedic surgery. Residents may not necessarily participate in every aspect of each individual patient's care, but should use the experience to learn those skills appropriate to pre-operative assessment.
- iii) Clinics must be structured so that the resident examines patients receiving post-operative follow-up in order to become familiar with the routine post-operative management of reconstructive procedures, fractures, and complications of both elective and emergency surgery.
- iv) Clinics must be structured so that the resident gains experience in specialized areas of Orthopedic Surgery, including participation in multidisciplinary, interprofessional clinics.

c) Community Learning Experiences

Community orthopedic surgery may differ in scope and delivery from orthopedic surgery practiced in university centres, and therefore community-based rotations in orthopedic surgery are a mandatory requirement. Community experiences offered to Orthopedic Surgery residents must provide a learning environment with appropriate supervision, patient encounters, and opportunities for assessment based on rotation specific objectives. This assumes administrative support and linkages with the university.

d) Intensive Care

Units organized for teaching are required to provide experience in the broad field of supportive care of critically ill and injured patients. The organization of the intensive care unit must be directed in part toward the management of trauma patients. Orthopedic Surgery residents rotating in these units must assume major responsibilities under appropriate supervision for management of these trauma patients.

e) Emergency Facilities

Emergency facilities are not necessary in all hospitals in which the residents have rotations. However, in those hospitals in which emergency departments are available, the resident must be responsible in a graded fashion for consultations. In addition, it is anticipated that Orthopedic Surgery residents will participate in the management of polytrauma patients seen in the emergency department.

4. Supporting Services - Clinical, Diagnostic and Technical

The following services should be available:

- a. Clinical
 - i. Rehabilitation therapy
 - ii. Infectious diseases
 - iii. Rheumatology
 - iv. Physiatry
 - v. General internal medicine
 - vi. Oncology
- b. Diagnostic
 - i. Medical imaging
 - ii. Pathology
 - iii. Laboratory
- c. Technical
 - i. Information technology, including access to appropriate infrastructure and resources for:
 - clinical care, such as electronic medical records
 - medical imaging
 - literature review for patient care
 - ii. Orthotics and prosthetics
 - iii. Orthopedic technologists

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 Orthopedic Surgery* 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:

- Organized scholarly activities must include dedicated educational time for residents. It is preferable that this time be allocated as part of the standard working day of the resident and not be scheduled prior to or following the standard working day.
- Teaching must cover technical skills as well as clinical knowledge essential to the understanding and practice of Orthopedic Surgery.
- The program must include teaching in basic sciences, in particular the relevant aspects of anatomy, biomechanics, microbiology, pharmacology and pathology.

2. Communicator

In addition to the *General Standards of Accreditation*, the resident must be provided with the opportunity to learn specific communications skills related to:

- obtaining informed consent
- disclosure of adverse events
- discussing end-of-life care
- breaking bad news

3. Collaborator

The *General Standards of Accreditation* apply to this section.

4. Manager

In addition to the *General Standards of Accreditation*, the following requirement applies:

- The program must provide opportunities to gain an understanding of the principles and practice of quality assurance/improvement.

5. Health Advocate

In addition to the *General Standards of Accreditation*, the following topics must be taught:

- the prevention and management of osteoporosis
- injury prevention
- recognition and intervention in child and adult abuse

6. Scholar

The *General Standards of Accreditation* apply to this section.

7. Professional

The *General Standards of Accreditation* apply to this section.

STANDARD B6: ASSESSMENT OF RESIDENT PERFORMANCE

There must be mechanisms in place to ensure the systematic collection and interpretation of assessment 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.

One faculty member must be clearly identified as the physician responsible for the educational activities within the unit. The resident would report to that faculty individual or to a designate. The physician in charge of the unit is responsible for assessment of the resident, including verbal reports of progress and an In-Training Evaluation Report (ITER) to be completed at the end of each resident rotation.

Assessments of residents, including verbal reports of progress and an ITER, must be completed at the end of each resident rotation. Formal mid-rotation assessments must be given for rotations greater than 3 months and must be documented with an ITER discussed at this time. Formal feedback should be given regularly, at least every six weeks to provide guidance on progress. Any concerns with the resident's progress must be documented. The ITER must be discussed with and signed by the resident.

Each resident must keep a record of all operative procedures in which he or she has participated either as assistant or operating surgeon.

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