

Standards of Accreditation for Areas of Focused Competence Programs in Hematopoietic Stem Cell Transplantation and Cellular Therapy

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INTRODUCTION

The *Standards of Accreditation for Areas of Focused Competence (AFC) Programs in Hematopoietic Stem Cell Transplantation and Cellular Therapy* are a national set of standards maintained by the Royal College of Physicians and Surgeons of Canada for the evaluation and accreditation of Hematopoietic Stem Cell Transplantation and Cellular Therapy AFC programs. The standards aim to provide an interpretation of the *General Standards of Accreditation for Areas of Focused Competence Programs* as they relate to the accreditation of AFC programs in Hematopoietic Stem Cell Transplantation and Cellular Therapy, and to ensure these programs adequately prepare AFC trainees to meet the health care needs of their patient population(s) upon completion of training.

The standards include requirements applicable to AFC programs and learning sites and have been written in alignment with the standards organization framework used in the general standards that aims to provide clarity of expectations, while maintaining flexibility for innovation.

These standards are intended to be read in conjunction with the *General Standards of Accreditation for Areas of Focused Competence Programs*, as well as the discipline-specific documents for Hematopoietic Stem Cell Transplantation and Cellular Therapy. In instances where the indicators reflected in the *General Standards of Accreditation for Areas of Focused Competence Programs* have been modified within this document to reflect a discipline-specific expectation, the indicator as reflected in this document takes precedence.

STANDARDS

DOMAIN: PROGRAM ORGANIZATION

The *Program Organization* domain includes standards focused on the structural and functional aspects of the AFC program, which support and provide structure to meet the general and discipline-specific standards of accreditation for AFC programs.

STANDARD 1: There is an appropriate organizational structure, with leadership and administrative personnel to support the AFC program, teachers, and trainees effectively.

Refer to Standard 1 and its various components within the *General Standards of Accreditation for Areas of Focused Competence Programs*.

DOMAIN: EDUCATION PROGRAM

The *Education Program* domain includes standards focused on the planning, design, and delivery of the AFC program, with the overarching outcome to ensure that the AFC program prepares trainees to be competent for practice in the discipline.

STANDARD 2: Trainees are prepared for independent practice in the AFC discipline.

Refer to Standard 2 and its various components within the *General Standards of Accreditation for Areas of Focused Competence Programs* in addition to the indicators detailed below.

Element 2.1: The AFC program is designed to facilitate trainees' attainment of the required competencies.

Requirement(s)	Indicator(s)
2.1.1: The AFC program's design and delivery is based on the standards of training for the AFC discipline.	2.1.1.6: The academic curriculum includes formal teaching of the following subjects as they relate to hematopoietic stem cell transplantation (HSCT) and cellular therapy: <ul style="list-style-type: none">o immunology,o hematopoietic stem cell biology,o cellular product collection,o cellular therapy laboratory sample processing and reporting,o pharmacology,o prevention and treatment of infections,

- o diagnosis and management of cell therapy complications, and
- o survivorship care.

2.1.1.7: The AFC program provides a forum for discussion of emerging cellular therapies and HSCT research (e.g., journal club).

2.1.1.8: The AFC program provides a forum for discussion of quality assurance issues (e.g., morbidity and mortality rounds).

2.1.1.9 (exemplary): *The AFC program provides formal educational session(s) for the trainees.*

2.1.1.10 (exemplary): *The AFC program provides trainees with the opportunity to attend an academic meeting related to HSCT and cellular therapy.*

2.1.1.11 (exemplary): *The AFC program provides trainees with appropriate resources, time, and supervision to complete a scholarly research, quality assurance, or educational project.*

DOMAIN: RESOURCES

The *Resources* domain includes standards focused on ensuring that the AFC program's clinical, physical, technical, financial, and human resources are sufficient for the delivery of the education program and, ultimately, to prepare trainees for practice in the discipline.

STANDARD 3: The delivery and administration of the AFC program is supported by appropriate resources.

Refer to Standard 3 and its various components within the *General Standards of Accreditation for Areas of Focused Competence Programs* in addition to the indicators detailed below.

Element 3.1: The AFC program has the clinical, physical, technical, and financial resources to provide all trainees with the educational experiences needed to acquire all competencies.

Requirement(s)	Indicator(s)
3.1.1: The patient population is adequate to ensure that trainees attain required competencies.	<p>3.1.1.1 (modified) The AFC program provides access to the volume and diversity of patients appropriate to the AFC discipline consistently for all trainees. The patient population includes candidates for cell therapy, including autologous and allogeneic transplantation, for both benign and malignant disorders.</p> <p>3.1.1.2: The AFC program has access to the full spectrum of donors for selection and evaluation, including</p> <ul style="list-style-type: none">o autologous,o related donor,o unrelated donor, ando human leukocyte antigen (HLA) matched and mismatched donors. <p>3.1.1.3: The AFC program has access to the full spectrum of cellular products used in transplantation or cellular therapy, including</p> <ul style="list-style-type: none">o peripheral blood stem cells,

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- o bone marrow,
- o cord blood, and
- o lymphocytes.

3.1.2: Clinical and consultative services and facilities are effectively organized and adequate to ensure that trainees attain the required competencies.

3.1.2.5: The clinical HSCT and Cellular Therapy program complies with Health Canada's *Safety of Human Cells, Tissues and Organs for Transplantation Regulations* and meets the accreditation criteria of its accreditation organizations.

3.1.2.6: The AFC program has timely access to an operating room to perform bone marrow collection.

3.1.2.7: The AFC program has timely access to the apheresis unit for cell collection.

3.1.2.8: The AFC program has access to a cellular therapy laboratory to evaluate, process, treat, and store the cellular product.

3.1.2.9: The AFC program has 24-hour access to inpatient beds for the evaluation and treatment of donors and recipients.

3.1.2.10: The AFC program has access to an ambulatory clinic for the longitudinal care and follow-up of donors and recipients.

3.1.2.11: The AFC program has access to personnel and facilities for acute care and emergency consultations for acutely and/or critically ill donors and recipients.

3.1.2.12: The AFC program has timely access to human leukocyte antigen (HLA) typing, molecular, cytogenetic, and flow cytometry laboratories for donor selection, chimerism studies, minimal residual disease evaluations, and prognostic evaluation of cellular therapy recipients.

3.1.2.13: The AFC program has access to hematology, biochemistry, microbiology, virology, and blood bank laboratories for donor and recipient evaluation, per Health Canada regulations.

3.1.2.14: The AFC program has access to the following consultative services:

- o cardiology,
- o critical care medicine,
- o dentistry,
- o dermatology,
- o endocrinology,
- o gastroenterology,
- o gynecology,
- o infectious diseases,
- o nephrology,
- o neurology,
- o ophthalmology,
- o oto-rhino-laryngology,
- o psychiatry,
- o respirology, and
- o urology.

3.1.2.15: The AFC program has access to interventional radiology, endoscopy, transfusion medicine, pathology, and mental health services with expertise in HSCT and cellular therapy.

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3.1.2.16: The AFC program has access to pharmacists, care coordinators, quality assurance personnel, and supporting clerical staff.

3.1.2.17: The AFC program has access to registered dietitians, physical therapists, psychologists, and social workers.

3.1.2.18: The AFC program has access to the full spectrum of medical imaging services and diagnostic laboratory services.

3.1.2.19: The AFC program has access to an endoscopy suite, pulmonary function testing, and electrocardiography and echocardiography services.

3.1.2.20: The AFC program has a linkage with national and international donor registries with efficient and reliable donor identification, clearance, and donation.

3.1.2.21: The AFC program has access to reliable services for cellular product transportation.

3.1.3: The AFC program has the necessary financial, physical, and technical resources.

3.1.3.5 (exemplary): *Inpatient, outpatient, emergency, and intensive care unit (ICU) services have the appropriate facilities to isolate recipients of HSCT and cellular therapy.*

3.1.4: There is appropriate liaison with other programs and teaching services to ensure that trainees experience the breadth of the discipline.

3.1.4.2: The university sponsors accredited programs in either or both of

- Internal Medicine and Hematology; or
- Pediatrics and Pediatric Hematology/Oncology.

Element 3.2: The AFC program has the appropriate human resources to provide all trainees with the required educational experiences.

Requirement(s)

Indicator(s)

3.2.1: Teachers appropriately implement the curriculum, supervise and assess trainees, contribute to the program, and role model effective practice.

3.2.1.1 (modified) The number, credentials, competencies, and scope of practice of the teachers are adequate to provide the breadth and depth of the discipline, including required clinical teaching, academic teaching, appropriate research, assessment, and feedback to trainees. At least three of the faculty have completed training, demonstrate expertise in HSCT and cellular therapy, and are engaged in active practice.

3.2.1.4: The AFC director has

- Royal College certification in Hematology or Pediatric Hematology/Oncology or equivalent, and
- demonstrated specialty expertise in HSCT and cellular therapy, with
 - specific training and at least five years of practice in HSCT and cellular therapy, and
 - ongoing active involvement in the practice of HSCT and cellular therapy.

DOMAIN: LEARNERS, TEACHERS, AND ADMINISTRATIVE PERSONNEL

The *Learners, Teachers, and Administrative Personnel* domain includes standards focused on safety, wellness, and support for learners and teachers.

STANDARD 4: Safety and wellness are promoted throughout the learning environment.

Refer to Standard 4 and its various components within the *General Standards of Accreditation for Areas of Focused Competence Programs*.

STANDARD 5: Trainees are treated fairly throughout their progression through the AFC program.

Refer to Standard 5 and its various components within the *General Standards of Accreditation for Areas of Focused Competence Programs*.

STANDARD 6: Teachers effectively deliver and support all aspects of the AFC program.

Refer to Standard 6 and its various components within the *General Standards of Accreditation for Areas of Focused Competence Programs*.

DOMAIN: CONTINUOUS IMPROVEMENT

The *Continuous Improvement* domain includes standards focused on ensuring a systematic approach to the evaluation and improvement of the AFC program.

STANDARD 7: There is continuous improvement of the educational experiences to improve the AFC program and ensure trainees are prepared for independent practice in the discipline.

Refer to Standard 7 and its various components within the *General Standards of Accreditation for Areas of Focused Competence Programs*.

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