

These training requirements apply to those who begin training on or after July 1, 2021.

ELIGIBILITY REQUIREMENTS TO BEGIN TRAINING

Royal College certification in Internal Medicine.

OR

Eligibility for the Royal College certification examination in Internal Medicine.

OR

Registration in a Royal College-accredited residency program in Internal Medicine (see requirements for these qualifications).

A maximum of one year of training may be undertaken during concurrent training for certification in Internal Medicine.

ELIGIBILITY REQUIREMENTS FOR CERTIFICATION EXAMINATION¹

All candidates must be Royal College certified in Internal Medicine in order to be eligible to write the Royal College certification examination in Adult Cardiology.

The following training experiences are required, recommended, or optional, as indicated:

TRANSITION TO DISCIPLINE (TTD)

The focus of this stage is the formal orientation of new trainees to the organizational structure, policies, and healthcare teams in the setting within which they will work and learn over the course of their residency. During this stage, residents will be also assessed to confirm the competencies of Internal Medicine with a focus on the clinical and procedural skills necessary to provide initial assessment and management of common cardiology presentations.

¹ These eligibility requirements do not apply to Subspecialty Examination Affiliate Program (SEAP) candidates. Please contact the Royal College for information about SEAP.

Required training experiences (TTD stage):

1. Clinical training experiences:
 - 1.1. Any inpatient cardiology experience (e.g., cardiac intensive care unit, ward, consultation to other services and/or emergency room)
 - 1.2. After-hours coverage of the cardiology service

2. Other training experiences:
 - 2.1. Orientation to the program, including: policies, resident resources, program portfolios, learning resources, and assessment system
 - 2.2. Orientation to the hospital(s), including: policies, admitting and discharge processes, care protocols, and information systems
 - 2.3. Assessment of Internal Medicine procedural competencies² relevant to Cardiology
 - 2.4. Advanced Cardiovascular Life Support (ACLS) recertification, if required

Optional training experiences (TTD stage):

3. Clinical training experiences:
 - 3.1. Orientation and introduction to the use of bedside echocardiography in an emergency situation

4. Other training experiences:
 - 4.1. Introductory didactic or small group sessions:
 - 4.1.1. Airway management
 - 4.1.2. Mechanical ventilation
 - 4.1.3. Emergency pericardiocentesis
 - 4.1.4. Temporary pacing
 - 4.1.5. Intra-aortic balloon pump (IABP) troubleshooting
 - 4.1.6. Introduction to echocardiography
 - 4.1.7. Introduction to stress testing
 - 4.1.8. Principles of radiation safety
 - 4.1.9. Consent for common cardiac diagnostic tests and procedures

² See Internal Medicine Competencies.

FOUNDATIONS OF DISCIPLINE (F)

The focus of this stage is the care of patients with acute cardiac presentations in inpatient settings. Training experiences in this stage will focus on developing the foundational knowledge base of Cardiology and the fundamental skills of clinical assessment, requesting and interpreting cardiac diagnostic tests, and providing patient management. In addition, residents will obtain basic skills in transthoracic echocardiography.

Required training experiences (Foundations stage):

1. Clinical training experiences:
 - 1.1. Cardiology
 - 1.1.1. Cardiac intensive care unit
 - 1.1.2. Ward
 - 1.1.3. Consultation to other services and the emergency room
 - 1.1.4. After-hours coverage
 - 1.1.5. Diagnostic testing
 - 1.1.5.1. Echocardiography
2. Other training experiences:
 - 2.1. Formal instruction in the clinical and biomedical sciences of Cardiology
 - 2.2. Participation in critical appraisal activities (e.g., journal club)
 - 2.3. Participation in interprofessional team rounds
 - 2.4. Career planning
 - 2.5. Presentations at formal teaching sessions (e.g., grand rounds, journal club)

Recommended training experiences (Foundations stage):

3. Clinical training experiences:
 - 3.1. Cardiology clinics
 - 3.2. Longitudinal cardiology clinic
 - 3.3. Device clinic or other electrophysiology experience
 - 3.4. Cardiac diagnostic testing
 - 3.4.1. Catheterization lab
 - 3.4.2. Exercise stress testing
4. Other training experiences:
 - 4.1. Initiation of a scholarly project

Optional training experiences (Foundations stage):

5. Clinical training experiences:
 - 5.1. Cardiac diagnostic testing
 - 5.1.1. Nuclear cardiology
 - 5.1.2. Computerized tomography (CT)
 - 5.1.3. Magnetic Resonance Imaging (MRI)

6. Other training experiences:
 - 6.1. Simulation training for procedures

CORE OF DISCIPLINE (C)

The focus of this stage is to build the skills and knowledge necessary to independently manage patients across the breadth of cardiovascular presentations as an effective member of an interprofessional team. Residents will advance through this stage managing patients with a broad range of increasingly complex acute cardiac presentations as well as known chronic conditions. In addition to the assessment and diagnosis of patients, residents will take on greater responsibility for performing cardiac diagnostic investigations and developing long-term treatment and/or rehabilitation plans. This stage also provides the opportunity to tailor learning to individual career goals, and gain additional experience and expertise with a patient population and/or diagnostic skill set that prepares them for future practice.

Required training experiences (Core stage):

1. Clinical training experiences:
 - 1.1. Cardiology
 - 1.1.1. Cardiac intensive care unit
 - 1.1.2. Ward
 - 1.1.3. Consultation to other services and the emergency room
 - 1.1.4. Clinics
 - 1.1.5. Specialized clinics
 - 1.1.5.1. Adult congenital heart disease clinic
 - 1.1.5.2. Arrhythmia clinic
 - 1.1.5.3. Device clinic
 - 1.1.5.4. Heart failure clinic
 - 1.1.6. After-hours coverage
 - 1.1.7. Cardiology in the community setting

- 1.1.8. Diagnostic testing
 - 1.1.8.1. Echocardiography
 - 1.1.8.2. Cardiac catheterization
 - 1.1.8.3. Exercise stress testing
 - 1.1.8.4. Nuclear cardiology
 - 1.1.8.5. Advanced cardiac imaging, including CT and MRI

2. Other training experiences:

- 2.1. Formal instruction in the clinical and biomedical sciences of Cardiology
- 2.2. Participation in critical appraisal activities (e.g., journal club)
- 2.3. Completion of scholarly activity
- 2.4. Participation in quality improvement activities relevant to Cardiology
- 2.5. Career planning
- 2.6. Presentations at formal teaching sessions (e.g., grand rounds)
- 2.7. Leading interprofessional team meetings
- 2.8. Completion of Structured Assessment of a Clinical Encounter (STACER) in Cardiology

Recommended training experiences (Core stage):

3. Clinical training experiences:

- 3.1. Cardiac rehabilitation
- 3.2. Longitudinal cardiology clinic
- 3.3. Telehealth clinic
- 3.4. Electrophysiology lab
- 3.5. Pediatric cardiology clinic

Optional training experiences (Core stage):

4. Clinical training experiences:

- 4.1. Genetics and/or genetic counselling clinic
- 4.2. Cardiac anesthesia
- 4.3. Cardiac surgery
- 4.4. Cardiovascular surgery ICU
- 4.5. Geriatric medicine service
- 4.6. Palliative care service

TRANSITION TO PRACTICE (TTP)

The purpose of this stage is to integrate the residents' clinical skills in managing patients with cardiac presentations, and to prepare for the next stage of their career. During this stage, residents demonstrate medical leadership in the junior attending³ role in a variety of clinical environments, providing quality patient care and managing the associated teams and clinical resources. They manage the most complex patient presentations, including those patients for whom there is ambiguity or uncertainty regarding the diagnosis and/or management plan. They also gain increased exposure to the business of medicine and the administration of an individual practice.

Required training experiences (TTP stage):

1. Clinical training experiences:
 - 1.1. Junior attending role across the breadth of cardiology clinical experiences including:
 - 1.1.1. Cardiac intensive care unit
 - 1.1.2. Ward
 - 1.1.3. Consultation service
 - 1.1.4. Clinic
 - 1.2. After-hours coverage for Cardiology
2. Other training experiences:
 - 2.1. Formal instruction in practice management

Recommended training experiences (TTP stage):

3. Clinical training experiences:
 - 3.1. Cardiology in the community setting
4. Other training experiences:
 - 4.1. Training in physician leadership development

³ "Junior attending" means that the resident assumes leadership in the education and clinical supervision of junior colleagues, with as much independence as permitted by ability, law and hospital policy.

Optional training experiences (TTP stage):

5. Clinical training experiences:

5.1. Specialized clinics including:

- 5.1.1. Valve disease clinic
- 5.1.2. Heart failure clinic
- 5.1.3. Device clinic
- 5.1.4. Cardio-oncology clinic
- 5.1.5. Genetics clinic
- 5.1.6. Lipid clinic

5.2. Cardiac diagnostic testing linked to individual resident's career plan

CERTIFICATION REQUIREMENTS

Royal College certification in Adult Cardiology requires all of the following:

1. Royal College certification in Internal Medicine;
2. Successful completion of the Royal College certification examination in Adult Cardiology; and
3. Successful completion of the Royal College Adult Cardiology Portfolio.

NOTES

The Adult Cardiology Portfolio refers to the list of entrustable professional activities across all four stages of the residency Competence Continuum, and associated national standards for assessment and achievement.

MODEL DURATION OF TRAINING

Progress in training occurs through demonstration of competence and advancement through the stages of the Competence Continuum. Adult Cardiology is planned as a three-year residency program. There is no mandated period of training in each stage. Individual duration of training may be influenced by many factors, which may include the resident's singular progression through the stages, the availability of teaching and learning resources, and/or differences in program implementation. Duration of training in each stage is therefore at the discretion of the faculty of medicine, the competence committee, and the program director.

ADULT CARDIOLOGY TRAINING EXPERIENCES (2021)

Guidance for programs:

The Royal College Specialty Committee in Adult Cardiology's suggested course of training, for the purposes of planning learning experiences and schedules, is as follows:

- 1-3 months in Transition to Discipline
- 7-9 months in Foundations of Discipline
- 24 months in Core of Discipline
- 2-3 months in Transition to Practice

Guidance for postgraduate medical education offices:

The stages of the Competence Continuum in Adult Cardiology are generally no longer than

- 3 months for Transition to Discipline
- 9 months for Foundations of Discipline
- 24 months for Core of Discipline
- 3 months for Transition to Practice
- Total duration of training – 3 years or 36 months

This document is to be reviewed by the Specialty Committee in Cardiology by December 2021.

APPROVED – Specialty Standards Review Committee – April 2019

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