

*Canadian College of  
Microbiologists*



*Collège Canadien des  
Microbiologistes*

**FELLOW OF THE CANADIAN COLLEGE OF MICROBIOLOGISTS**

**SCOPE OF ACTIVITY**

**Canadian College of Microbiologists Certification**

The Canadian College of Microbiologists (CCM) is a certification and regulatory and professional organization for several designations of microbiologists practicing within Canada including Fellows of the Canadian College of Microbiologists (FCCM).

CCM certification as an FCCM is formal recognition by CCM that an individual has demonstrated proficiency in, and comprehension of, the specialized body of microbiological knowledge necessary to provide clinical, scientific and administrative oversight of a clinical microbiology laboratory and function as a microbiology consultant for other health care providers within the scope of activity described below, and to be designated, within Canada as a Clinical Microbiologist.

CCM awards FCCM certification to applicants who are doctoral-level microbiologists (PhD or MD) who have passed the FCCM board examination. This exam can be taken after completing an accredited post-doctoral fellowship in Clinical/Medical Microbiology or after completing three years of relevant work experience. CCM also, in accordance with reciprocity arrangements between the CCM and the American Board of Medical Microbiology (ABMM) of the American College of Microbiology, awards FCCM certification to applicants who are Diplomates of ABMM. Demonstration of continuing education is required as continuation of FCCM certification is reviewed by CCM every three years.

Clinical Microbiologists are essential health care providers who have specialized in the discipline of medical and public health microbiology and are integrally involved in the diagnosis, treatment, prevention and control of infectious diseases. Clinical Microbiologists do not engage in the “practice of medicine” which is to say they do not directly engage in treating patients.

CCM as the certification and regulatory and professional organization in Canada for Clinical Microbiologists is committed to communicating the scope of activity of this profession to health care organizations, employers and other health providers.

## **Scope of Activity of Clinical Microbiologists**

The scope of activity of Clinical Microbiologists includes:

1. Creating and directing an accredited clinical/diagnostic laboratory service, both operationally and financially, that will support and improve the clinical diagnosis and epidemiological investigation of infectious diseases.
2. Generating, disseminating and interpreting data from microbiological investigations as they apply to the diagnosis, management, and treatment of patients with infectious diseases and public health scenarios involving infectious diseases.
3. Developing and supporting accredited microbiology training programs for clinical/medical professional and technical personnel.
4. Establishing and supporting microbiological research programs that advance the field of infectious diseases for improved patient care and public health.
5. Acting as a microbiology consultant to support clinical and public health programs/initiatives at the local, national and international level.

## **Components of Scope/Core Competency of Clinical Microbiologists**

Clinical Microbiologists have a broad scope of responsibilities and are expected to demonstrate competency in many areas of laboratory medicine. These areas include clinical service, academic/scientific research, educational service as well as service to their profession. Detailed activities are described below for each component of a Clinical Microbiologist's responsibilities; however the lists are non-exhaustive as different employment settings may require that additional services be provided.

### Clinical Component

Clinical Microbiologists are expected to conduct their activities in a manner that facilitates the optimal provision of laboratory testing and communication of laboratory results to healthcare professionals. Activities within the clinical scope include, but are not limited to:

- Consultation with other healthcare providers regarding specimen collection, the selection and interpretation of clinical microbiology tests/results, including antimicrobial susceptibility, infection control, and public health
- Consultation with local, provincial, and national, and international public health officials
- Provision of direction for the production, development and review of laboratory testing algorithms, test menus, and appropriate use of laboratory tests, in accordance with best practices

- Direction and assistance for medical technologists with the interpretation of the clinical significance of laboratory findings
- Development and support of an effective quality assurance and quality management program for all laboratory services
- Provision of technical troubleshooting and problem solving

#### Administrative Component

As administrators, Clinical Microbiologists are expected to manage/oversee all microbiology laboratory functions, to provide guidance for daily laboratory activities, staffing and resource utilization, and to provide ongoing review of the quality management system. Administrative activities include, but are not limited to:

- Creation and direction of a clinical microbiology laboratory service, including hospital, reference, private, and Provincial public health laboratories
- Ensure the production of reliable and accurate laboratory results and reports
- Leading of hospital and institutional committees, laboratory information systems management, practice guideline development, and personnel safety and management
- Liaising with laboratory administration and personnel
- Conducting cost-efficacy analyses on new diagnostic systems and algorithms
- Overseeing accreditation, competency, proficiency testing, and overall quality performance of the laboratory service.
- Lead strategic planning initiatives for the Microbiology laboratory

#### Academic and Scientific Research Component

As academic and scientific leaders, Clinical Microbiologists are expected to be actively involved in research. Activities within the academic and scientific scope include, but are not limited to:

- Development/evaluation/implementation of new test methods, techniques, and instrumentation
- Collaboration with clinical/basic research colleagues
- Securing sustainable grant support and project management
- Participation on editorial boards, advisory boards, and commercial industry partnerships

#### Educational Component

Clinical Microbiologists are expected to foster interest in and to facilitate knowledge transfer of microbiology by engaging in educational endeavours. Educational activities include, but are not limited to:

- Provision of formal and informal teaching of clinical/medical professionals, technical staff, medical residents, medical fellows, undergraduate medical students, and graduate students
- Supervision of graduate student research projects

### Professional Component

Clinical Microbiologists are expected to support and promote their profession at the local, national, and international level and perform all of their duties in an ethical and honest manner. Professional activities include, but are not limited to:

- Membership and board-service in professional society organizations
- Provision of ethical, honest, and compassionate service in all duties