

JULY 2020
VERSION 2.0

DEFINITION

Cytopathology is that area of enhanced competence within Anatomical Pathology or General Pathology concerned with diagnosis through the morphological evaluation of cells and/or microfragments of tissue reflecting the manifestations of disease. Cytopathological testing is carried out on cellular material obtained from a variety of body sites which is analyzed for pathological conditions, and differs from surgical pathology by the method of sample preparation and presentation of the sample for microscopic evaluation. Cytopathological testing is done for both diagnostic and screening purposes and plays a very important role in patient management under both circumstances.

ELIGIBILITY REQUIREMENTS TO BEGIN TRAINING

Royal College certification, or equivalent, in Anatomical Pathology or General Pathology

OR

Eligibility for the Royal College certification examination in Anatomical Pathology or General Pathology

OR

Registration in a Royal College-accredited residency program in Anatomical Pathology or General Pathology (see requirements for these qualifications)

ELIGIBILITY REQUIREMENTS TO SUBMIT A ROYAL COLLEGE COMPETENCY PORTFOLIO

All trainees must be Royal College certified, or equivalent, in their entry route discipline in order to be eligible to submit a Royal College competency portfolio in Cytopathology.

MAJOR TASKS OF CYTOPATHOLOGY

The discipline of Cytopathology includes responsibility for

- interpretation of gynecological and non-gynecological cytological specimens,
- management of the cytopathology laboratory,
- performance of fine needle aspirates (FNAs) of superficial body sites,
- selection and interpretation of ancillary cytological studies for diagnosis and prognosis,

- advancement of the discipline of Cytopathology through scholarship, and
- engagement of governments, other physicians, and other health professions in the promotion of the role of Cytopathology in patient wellness and care.

In this document, **advanced knowledge** is defined as: detailed and sophisticated understanding, which is multimodal and interdisciplinary, leading to advanced teaching and consultation on complex referrals. This goes beyond the scope of the *Anatomical Pathology Competencies* or the *General Pathology Competencies*.

In this document, **advanced proficiency** is defined as: sound, thorough competence, derived from training and practice, leading to accomplished and refined performance and a natural dexterity in execution of the skill. This goes beyond the scope of the *Anatomical Pathology Competencies* or the *General Pathology Competencies*.

At the completion of training, the diplomate will have acquired the following competencies and will function effectively as a:

Medical Expert

Definition:

As *Medical Experts*, Cytopathologists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centred care. Medical Expert is the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Cytopathologists are able to ...

1. Establish and maintain advanced knowledge, skills, and behaviours appropriate to Cytopathology

- 1.1. Demonstrate knowledge of criteria for specimen adequacy and assessment of slides to diagnose benign, pre-malignant, and malignant conditions
- 1.2. Demonstrate knowledge of interpretation of cytopathological findings in the context of clinical and diagnostic imaging findings to offer the most accurate diagnosis and effective expert consultation
- 1.3. Demonstrate knowledge of comprehensive and clinically relevant cytopathology reporting, incorporating morphological findings, results of ancillary studies, and recommendations when appropriate
- 1.4. Demonstrate an ability to act as a consultant to other pathologists for challenging or difficult cytological specimens
- 1.5. Demonstrate knowledge of fine needle aspiration (FNA) techniques
- 1.6. Demonstrate knowledge of on-site examination of cytology samples
- 1.7. Demonstrate knowledge of the impact of public health policies relevant to Cytopathology
- 1.8. Demonstrate knowledge of critical cytopathological diagnoses that require expedited reporting
- 1.9. Demonstrate knowledge of the indications, use, and limitations of ancillary techniques as aids to diagnosis

- 1.10. Demonstrate knowledge of the principles of medical expert testimony in a medico-legal proceeding

2. Demonstrate advanced proficiency in using diagnostic procedural skills

- 2.1. Demonstrate advanced interpretive skills in evaluation and reporting of specimens
- 2.2. Demonstrate proficient performance of FNAs of superficial body sites
- 2.3. Demonstrate proficient on-site examination of cytological specimens
- 2.4. Demonstrate appropriate use of ancillary techniques (immunomarkers, cytochemical tests, flow cytometry, molecular tests) for diagnostic, treatment, prognostic, and predictive purposes

Communicator

Definition:

As *Communicators*, Cytopathologists effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Key and Enabling Competencies: Cytopathologists are able to...

1. Convey relevant information and explanations accurately to patients and families, colleagues and other professionals

- 1.1. Deliver information to a patient and family¹, colleagues, and other professionals in a humane manner and in such a way that it is understandable and encourages discussion and participation in decision-making

2. Convey effective oral, written, and/or electronic information about cytological findings/diagnoses

- 2.1. Formulate comprehensive and clinically relevant cytopathology reports, incorporating morphological findings, results of ancillary studies, and recommendations where appropriate
- 2.2. Communicate cytological findings orally to address inquiries and convey urgent or working diagnoses when the final report may be delayed
- 2.3. Communicate reports of critical diagnoses in an expedited manner

¹ Throughout this document, references to the patient's family are intended to include all those who are personally significant to the patient and are concerned with his or her care, including, according to the patient's circumstances, family members, partners, caregivers, legal guardians, and substitute decision-makers

Collaborator

Definition:

As *Collaborators*, Cytopathologists work effectively within a health care team to achieve optimal patient care.

Key and Enabling Competencies: Cytopathologists are able to...

1. Participate effectively and appropriately in an interprofessional health care team

- 1.1. Describe the Cytopathologist's roles and responsibilities to other professionals
- 1.2. Describe the roles and responsibilities of other professionals within the health care team, including but not limited to cytotechnologists and radiologists
- 1.3. Recognize and respect the diverse roles, responsibilities, and competencies of other professionals in relation to their own
- 1.4. Work with others to assess, plan, provide, and integrate care for individuals and groups of patients
- 1.5. Work collaboratively in other activities and tasks; examples are research, educational work, program review, and/or administrative responsibilities
- 1.6. Demonstrate knowledge and skill in presenting cytopathology at multidisciplinary meetings

Manager

Definition:

As *Managers*, Cytopathologists are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system

Key and Enabling Competencies: Cytopathologists are able to...

1. Participate in activities that contribute to the effectiveness of their health care organizations and systems

- 1.1. Demonstrate participation in committees and knowledge of terms of reference
- 1.2. Demonstrate knowledge of the governance, structure, and function of the health care system and laboratory portfolio as it relates to Cytopathology
- 1.3. Provide recommendations on appropriate collection, triaging, handling, and storage of cytopathological material

2. Allocate finite health care resources appropriately

- 2.1. Demonstrate knowledge of sources of health care funding for physician remuneration, laboratories, and research

- 2.2. Perform a needs assessment for changes in instrumentation, new technologies, and procedures in the cytopathology laboratory
- 2.3. Demonstrate knowledge of the competing interests involved when important choices are considered regarding implementation of new technologies and procedures in the cytopathology laboratory
- 2.4. Allocate ancillary studies for the cytopathology laboratory in a judicious and effective manner

3. Serve in administration and leadership roles

- 3.1. Demonstrate advanced knowledge in directing a cytopathology laboratory, including but not limited to:
 - 3.1.1. Staffing, personnel management, and workload measurements
 - 3.1.2. Budgeting/business case development
 - 3.1.3. Laboratory safety
 - 3.1.4. Laboratory utilization
 - 3.1.5. Equipment selection and purchasing
 - 3.1.6. Compliance with laboratory licensure accreditation requirements
- 3.2. Design, implement, monitor and evaluate a quality assurance program
 - 3.2.1. Participate in the cytopathology laboratory quality assurance program
 - 3.2.2. Participate in health care quality initiatives including, but not limited to patient safety initiatives

Health Advocate

Definition:

As *Health Advocates*, Cytopathologists use their expertise and influence responsibly to advance the health and well-being of individual patients, communities, and populations.

Key and Enabling Competencies: Cytopathologists are able to...

1. Identify the determinants of health for the populations that they serve

- 1.1. Demonstrate knowledge of the behavioural/social and environmental risk factors that contribute to disease, the role of screening for disease in target populations, and the role of Cytopathologists in such processes

2. Promote the health of individual patients, communities, and populations

- 2.1. Demonstrate safe practices when carrying out procedures on patients and when working in the cytopathology laboratory
- 2.2. Identify points of influence in the health care system and its structure when advocating for the role of Cytopathology in public health programs

- 2.3. Demonstrate knowledge of the conflict of interest inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper

Scholar

Definition:

As *Scholars*, Cytopathologists demonstrate a lifelong commitment to reflective learning, and the creation, dissemination, application, and translation of medical knowledge.

Key and Enabling Competencies: Cytopathologists are able to...

- 1. Maintain and enhance professional activities through ongoing learning**
 - 1.1. Participate in competency assessment programs used by the cytopathology laboratory
 - 1.2. Show familiarity with and use the Maintenance of Certification (MOC) Program framework of the Royal College to develop, implement, and monitor a personal continuing education strategy in Cytopathology

- 2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions**
 - 2.1. Demonstrate an advanced ability to review new information/research in Cytopathology with critical appraisal and its relevance/impact in clinical practice

- 3. Facilitate the learning of patients, families, students, residents, other health professionals, the public and others**
 - 3.1. Demonstrate knowledge of the role of a Cytopathologist in meeting the learning needs of health care professionals in other medical disciplines, collaborate in addressing those needs, and demonstrate effective teaching skills
 - 3.2. Independently supervise junior trainees

- 4. Contribute to the development, dissemination, and translation of new knowledge and practices**
 - 4.1. Describe the principles of research and scholarly inquiry
 - 4.2. Describe the principles of research ethics
 - 4.3. Pose a scholarly question relevant to Cytopathology
 - 4.4. Conduct a systematic search for evidence
 - 4.5. Select and apply appropriate methods to address the question
 - 4.6. Disseminate the findings of a study

Professional

Definition:

As *Professionals*, Cytopathologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Key and Enabling Competencies: Cytopathologists are able to...

1. Demonstrate a commitment to their patients, profession, and society through ethical practice

- 1.1. Demonstrate knowledge of and follow the ethical and professional standards in all aspects of their practice as a consultant Cytopathologist

REQUIRED TRAINING EXPERIENCES

Trainees must:

1. Independently interpret sufficient numbers of gynecological and non-gynecological cytopathology slides to achieve advanced diagnostic knowledge and skill
2. Rotate in the cytopathology preparation (prep) room in order to understand tissue fixation, processing, and staining
3. Participate in the on-site assessment of FNAs of superficial body sites and image-guided FNAs of deep organs
4. Perform FNAs of superficial body sites so that they have competence in the technique of the procedure
5. Participate in quality assurance practices in the cytopathology laboratory
6. Regularly attend and frequently present cytological findings at departmental and multidisciplinary conferences
7. Participate in the education of other trainees and/or laboratory technical staff
8. Undertake at least one scholarly project (research or education)
9. Participate in Cytopathology competency assessment programs

RECOMMENDED TRAINING EXPERIENCES

Trainees should:

1. Participate in educational activities by attending a regional, national, or international conference with significant Cytopathology component
2. Participate in a collaborative research activity with other disciplines

COMPETENCY TRAINING REQUIREMENTS IN CYTOPATHOLOGY (JULY 2020)

3. Participate in medico-legal activity pertaining to expertise in Cytopathology when appropriate and if opportunity presents
4. Complete electives in laboratories performing ancillary studies on cytopathology specimens
5. Participate in community programs with relevance to Cytopathology, for example a cervical cancer screening and prevention program
6. Participate in skills enhancement activities, including but not limited to seminars on writing grant proposals, applying for research funding, improving communication skills, and lab management
7. Participate in preparations for an accreditation survey of a cytopathology laboratory

*Approved – Specialty Standards Review Committee – May 2013
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