

2008
EDITORIAL REVISION 2015
VERSION 1.2

This document applies to those who begin training on or after July 1st, 2008.

DEFINITION

Forensic Pathology is a subspecialty of Anatomical Pathology and General Pathology which applies basic pathologic principles and methodologies of these two specialties to support the medico-legal and judicial systems in determining causes and manners of death, supporting the investigation of circumstances surrounding deaths, and assisting in the interpretation of post-mortem findings of medico-legal significance.

GOALS

Upon completion of the training program, the subspecialist in Forensic Pathology will be competent to function as an expert witness and consultant in matters related to suspicious, homicidal, suicidal, accidental, and sudden unexpected natural deaths investigated under the umbrella of the legal system. He/she will demonstrate the knowledge, skills and aptitudes related to the interprofessional approach needed for these investigations, the interactions with both the medical and legal systems and the importance of Forensic Pathology for societal, public health, educational and research needs.

Only candidates certified by the Royal College of Physicians and Surgeons of Canada in Anatomical Pathology or General Pathology may be eligible for certification in Forensic Pathology.

Residents must demonstrate the requisite knowledge, skills, and behaviours for effective client-centred service to a diverse population. The client may include the deceased, a patient, a family, and interested third parties. In all aspects of subspecialist practice, the graduate must be able to address ethical issues and issues of gender, sexual orientation, age, culture, beliefs, and ethnicity in a professional manner.

FORENSIC PATHOLOGY COMPETENCIES

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

Medical Expert

Definition:

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

Key and Enabling Competencies: Forensic Pathologists are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical, and client-centred services

- 1.1. Perform a consultation, including the presentation of well-documented assessments and recommendations in oral, written, and/or electronic form in response to a request from another expert
 - 1.1.1. Demonstrate effective consultation services regarding medico-legal death investigation, education and legal opinions
 - 1.1.2. Act as a consultant to clinical colleagues, law enforcement personnel, judges, crown attorneys and lawyers, including defense lawyers, on the interpretation and relevance of pathological findings
 - 1.1.2.1. Describe the information and limitations pathology can provide in a given situation
- 1.2. Demonstrate use of all CanMEDS competencies relevant to Forensic Pathology
- 1.3. Identify and appropriately respond to relevant ethical issues arising in client services
- 1.4. Demonstrate the ability to prioritize professional duties when faced with multiple clients and problems
- 1.5. Demonstrate compassionate and client-centred service
- 1.6. Recognize and respond to the ethical dimensions in medical decision-making
- 1.7. Demonstrate medical expertise in Forensic Pathology by providing expert legal testimony or advising governments, as needed

2. Establish and maintain clinical knowledge, skills and attitudes appropriate to their practice

- 2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to Forensic Pathology, including the following:
 - 2.1.1. Death investigation
 - 2.1.1.1. Apply the principles of the various types of death investigation systems in Canada
 - 2.1.1.2. Demonstrate knowledge of the laws and regulations in Canada in relation to death investigation
 - 2.1.1.3. Apply the principles of death investigation and the role of the post-mortem examination in such investigations

- 2.1.1.4. Employ the personnel and procedures effectively (including maintaining the legal chain of custody of evidence) involved in the investigation of death
- 2.1.1.5. Function in the role of a Forensic Pathologist at the scene of a fatality if requested by investigators
- 2.1.1.6. Assess a death scene based on information provided by investigators
- 2.1.1.7. Conduct a death investigation effectively, including determination of identification of deceased, cause and manner of death

2.1.2. Post-mortem examinations

- 2.1.2.1. Outline the steps necessary to establish a positive identification
- 2.1.2.2. Apply knowledge of normal anatomy, physiology, and post-mortem changes
- 2.1.2.3. Describe the limitations of time of death determination to a post-mortem exam
- 2.1.2.4. Describe the relevant laws and regulations in relation to tissue/organ procurement, tissue retention, principles of consent, privacy and confidentiality
- 2.1.2.5. Ensure appropriate legal authority is obtained for procedures
- 2.1.2.6. Perform a complete post-mortem examination in a range of natural and unnatural deaths, with appropriate description of the external and internal findings, including gross and microscopic examinations
 - 2.1.2.6.1. The post-mortem examinations must include active participation in:
 - 2.1.2.6.1.1. Reviewing the death scene information and clinical history
 - 2.1.2.6.1.2. Establishing the identity of the body
 - 2.1.2.6.1.3. External examination of the body
 - 2.1.2.6.1.4. Organ evisceration and gross dissection
 - 2.1.2.6.1.5. Microscopic examination and review of toxicology or other ancillary test results where appropriate
 - 2.1.2.6.1.6. Preparation of written descriptions of the external, internal and microscopic findings
 - 2.1.2.6.1.7. Preparation of conclusions regarding causes and mechanism of death
 - 2.1.2.6.7. Identify the circumstances when toxicological and other ancillary investigations/tests may be appropriate, and apply the procedures for sampling tissues, fluids and other evidence for these additional investigations
 - 2.1.2.8. Perform special examinations and sample procurement in cases of sexual assault and child abuse fatalities
 - 2.1.2.9. Recognize the need for and perform the following effectively:

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- 2.1.2.9.1. Specialized autopsy dissections (including anterior layer-by-layer neck dissection with tongue removal)
- 2.1.2.9.2. Dissection of face
- 2.1.2.9.3. Posterior neck dissection
- 2.1.2.9.4. Layered dissection of posterior torso
- 2.1.2.9.5. Dissection of extremities
- 2.1.2.9.6. Eye and middle ear removal
- 2.1.2.9.7. Cerebral spinal fluid collection
- 2.1.2.9.8. Spinal cord removal
- 2.1.2.9.9. Perineal and pelvic block dissection
- 2.1.2.9.10. Cardiac conduction system examination
- 2.1.2.9.11. Vertebral artery evaluation
- 2.1.2.10. Recognize the need for neuropathologic, cardiovascular, forensic anthropology and/or forensic odontology consultations, and retain appropriate specimens for these consultations
- 2.1.2.11. Demonstrate pediatric autopsy techniques and examination of placentas
- 2.1.2.12. Demonstrate safe techniques for high risk autopsies, including infections (viral hepatitis, human immunodeficiency virus infection, tuberculosis, Creutzfeldt-Jakob disease, drug resistant bacteria) and exposure to noxious agents
- 2.1.2.13. Describe biosafety considerations for post-mortem examinations
- 2.1.2.14. Demonstrate the ability to take satisfactory external, gross and microscopic photographs of the post-mortem examination and any relevant tissues
- 2.1.2.15. Demonstrate the ability to interpret post-mortem findings in light of the clinical history and/or scene investigation and appreciate potential limitations of such interpretations
- 2.1.2.16. Demonstrate knowledge of the basis of and recognize embalming artifacts

2.1.3. Ancillary training

- 2.1.3.1. Describe elementary issues of medical jurisprudence
- 2.1.3.2. Describe the principles of forensic neuropathology, forensic anthropology and forensic odontology
- 2.1.3.3. Describe the principles of the interpretation of toxicological results
- 2.1.3.4. Describe the principles of the various fields of forensic sciences, including toxicology, chemistry, biology (including DNA), document examination, firearm and tool mark examination, entomology, forensic

photography, fingerprint analysis, trace evidence and alternative light source examinations

- 2.2. Describe the CanMEDS framework of competencies relevant to Forensic Pathology
- 2.3. Contribute to the enhancement of the quality of the services and safety in Forensic Pathology practice, integrating the available best evidence and best practices

3. Perform a complete and appropriate assessment of a case

- 3.1. Identify and explore issues to be addressed in a client encounter effectively, including the client's context and preferences
- 3.2. Elicit a history that is relevant, concise and accurate to context for the purposes of prevention and health promotion from a public health perspective
- 3.3. Perform a focused post-mortem examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management
- 3.4. Select medically appropriate investigative methods in a resource-effective and ethical manner
- 3.5. Demonstrate effective clinical problem solving and judgment to address client problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4. Use preventive interventions effectively

- 4.1. Discuss an effective management plan with a client
- 4.2. Demonstrate effective, appropriate, and timely application of preventive interventions
- 4.3. Ensure appropriate legal authority for the services provided
- 4.4. Demonstrate knowledge of reportable and communicable infectious diseases and determine the need for communication with the appropriate authorities

5. Demonstrate proficient and appropriate use of diagnostic and procedural skills

- 5.1. Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to Forensic Pathology to accurately assess cause, manner and mechanism of death
- 5.2. Document and disseminate appropriately information related to procedures performed and their outcomes
- 5.3. Ensure adequate followup is arranged for procedures performed

6. Seek appropriate consultation from other experts, recognizing the limits of their expertise

- 6.1. Demonstrate insight into their own limits of expertise

- 6.2. Demonstrate effective, appropriate, and timely consultation of other experts as needed for optimal client service
- 6.3. Propose appropriate followup for client services

Communicator

Definition:

As *Communicators*, Forensic Pathologists effectively facilitate the relationships with clients and the dynamic exchanges that occur before, during, and after a case.

Key and Enabling Competencies: Forensic Pathologists are able to...

- 1. Develop rapport, trust, and ethical relationships with clients, colleagues, families, other health care professionals and the medico-legal team**
 - 1.1. Recognize that being a good communicator is a core clinical skill for Forensic Pathologists, and that effective communication can foster clients', colleagues', and others' satisfaction and improved outcomes
 - 1.2. Establish positive relationships with clients and others that are characterized by understanding, trust, respect, honesty and empathy
 - 1.3. Respect client confidentiality, privacy and autonomy
 - 1.4. Listen effectively
 - 1.5. Be aware of and responsive to nonverbal cues
 - 1.6. Facilitate a structured forensic encounter effectively
- 2. Accurately elicit and synthesize relevant information and perspectives of clients, colleagues, and others**
 - 2.1. Gather information about a disease or injuries, but also about a client's beliefs, concerns, and expectations
 - 2.1.1. Demonstrate the ability to incorporate cultural and ethnic perspectives in the conduction of medico-legal death investigations
 - 2.2. Seek out and synthesize relevant information from other sources, such as a client's family, medico-legal death investigators and other experts
- 3. Convey relevant information and explanations accurately to clients, colleagues and others**
 - 3.1. Deliver information to a client, colleagues and others in a humane manner and in such a way that it is understandable, encourages discussion and participation in decision-making
 - 3.1.1. Communicate forensic information (opinions, conclusions) effectively to police, coroners/medical examiners, judges, crown attorneys and lawyers, to minimize misunderstanding

4. Develop a common understanding on issues, problems and plans with clients, colleagues and others to develop a shared plan of action

- 4.1. Identify and explore problems to be addressed from a client encounter effectively, including the client's context, responses, concerns, and preferences
- 4.2. Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making
- 4.3. Encourage discussion, questions, and interaction in the encounter
- 4.4. Engage client, families, and relevant others in shared decision-making to develop a plan of action
- 4.5. Address challenging communication issues effectively such as obtaining legal authority, delivering bad news, and addressing anger, confusion and misunderstanding

5. Convey effective oral, written, and/or electronic information about a forensic encounter

- 5.1. Maintain clear, concise, accurate and appropriate records of forensic encounters and plans
 - 5.1.1. Communicate post-mortem findings in an effective written and oral fashion
- 5.2. Present verbal reports of forensic encounters and plans effectively
 - 5.2.1. Describe the importance of communicating appropriately the information (opinions, conclusions) to police, coroners/medical examiners, and crown attorneys and lawyers, to minimize misunderstandings
 - 5.2.2. Demonstrate an understanding of the legal, ethical and behavioural requirements when testifying in court
- 5.3. Present medical information effectively to the public and media about a medical issue
- 5.4. Describe the information and limitations pathology can provide in a given situation and be able to communicate it effectively in an oral and written form

Collaborator

Definition:

As *Collaborators*, Forensic Pathologists effectively work within a medico-legal team to achieve optimal client services.

Key and Enabling Competencies: Forensic Pathologists are able to...

1. Participate effectively and appropriately in a medico-legal team

- 1.1. Identify and clearly describe the role, expertise, responsibilities, and limitations of all members of the medico-legal team

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- 1.2. Describe the roles and responsibilities of other members of the medico-legal team
- 1.3. Recognize and respect the diversity of roles, responsibilities and competences of other members of the medico-legal team in relation to their own
- 1.4. Work with others to assess, plan, provide and integrate client services
- 1.5. Work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities
- 1.6. Participate effectively in death investigation team meetings when needed, demonstrating the ability to consider and respect the opinion of other team members
- 1.7. Enter into interdependent relationships with other professions for the provision of quality services
- 1.8. Describe the principles of team dynamics
- 1.9. Respect team ethics, including confidentiality, resource allocation and professionalism
- 1.10. Demonstrate leadership in a medico-legal team, as appropriate

- 2. Work with other members of the medico-legal team effectively to prevent, negotiate, and resolve interprofessional conflict**
 - 2.1. Demonstrate a respectful attitude towards other colleagues and members of a medico-legal team
 - 2.2. Demonstrate a multidisciplinary approach for a death investigation (scene investigation, post-mortem examination, history, ancillary investigations) in collaboration with other members of the medico-legal team
 - 2.3. Participate in death investigation team meetings when needed, demonstrating the ability to consider and respect the opinion of other team members
 - 2.4. Work with other members of the medico-legal team to prevent conflicts
 - 2.5. Employ collaborative negotiation to resolve conflicts
 - 2.6. Respect differences and address misunderstandings and limitations in other members of the medico-legal team
 - 2.7. Recognize one's own differences, misunderstanding and limitations that may contribute to medico-legal team tension
 - 2.8. Demonstrate awareness of medico-legal death investigation as a collaborative effort between individuals and groups with different skills and experience working toward a common goal

Manager

Definition:

As *Managers*, Forensic Pathologists are integral participants in health care organizations and/or medico-legal systems, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care organization

and medico-legal system.

Key and Enabling Competencies: Forensic Pathologists are able to...

1. Participate in activities that contribute to the effectiveness of their health care organizations and/or medico-legal systems

- 1.1. Work collaboratively with others in their organizations
- 1.2. Participate in systemic quality process evaluation and improvement, as applied to forensic pathology
- 1.3. Describe the structure and function of the health care system and/or medico-legal system as it relates to Forensic Pathology, including the roles of physicians
- 1.4. Describe principles of health care and/or medico-legal financing, including physician remuneration, budgeting and organizational funding

2. Manage their practice and career effectively

- 2.1. Set priorities and manage time to balance client services, practice requirements, outside activities and personal life
- 2.2. Manage a practice including finances and human resources
- 2.3. Implement processes to ensure personal practice improvement
 - 2.3.1. Apply the methods of professional quality assurance as applied to Forensic Pathology
- 2.4. Employ information technology appropriately to optimize death investigation and other activities
- 2.5. Describe knowledge of the principles of laboratory management
 - 2.5.1. Apply the principles of laboratory safety and universal precautions

3. Allocate finite health care and/or medico-legal resources appropriately

- 3.1. Recognize the importance of just allocation of health care and/or medico-legal resources, balancing effectiveness, efficiency and access with optimal client services
- 3.2. Apply evidence and management processes for cost-appropriate services

4. Serve in administration and leadership roles

- 4.1. Chair or participate effectively in committees and meetings
- 4.2. Lead or implement change in Forensic Pathology procedures and investigative approaches
- 4.3. Plan relevant elements of medico-legal services

Health Advocate

Definition:

As *Health Advocates*, Forensic Pathologists responsibly use their expertise and influence to advance the health and well-being of individuals, communities, and populations.

Key and Enabling Competencies: Forensic Pathologists are able to...

1. Respond to population health needs and issues as part of societal well-being

- 1.1. Identify the health needs of the population
 - 1.1.1. Identify hereditary diseases and inform family members to protect the health of living relatives, as appropriate
- 1.2. Identify opportunities for advocacy, health promotion and disease prevention

2. Respond to the health needs of the communities that they serve

- 2.1. Describe the practice communities that they serve
- 2.2. Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately
- 2.3. Collaborate with the public health officials to recognize infectious disease outbreaks, bioterrorism-related deaths and other public health threats
- 2.4. Appreciate the possibility of competing issues between the communities served, other populations and other members of the medico-legal team

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

- 3.1. Identify the determinants of health of the populations, including barriers to access to services and resources
- 3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

4. Promote the health of individuals, communities, and populations

- 4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve
- 4.2. Describe how public policy impacts on the health of the populations served
- 4.3. Identify points of influence in the health care system and its structure
- 4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism
- 4.5. Appreciate the possibility of conflict inherent in their role as a health advocate for an individual or community with that of manager or gatekeeper
- 4.6. Describe the role of the medical profession in advocating collectively for health and population safety

Scholar

Definition:

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

Key and Enabling Competencies: Forensic Pathologists are able to...

- 1. Maintain and enhance professional activities through ongoing learning**
 - 1.1. Describe the principles of maintenance of competence
 - 1.2. Describe the principles and strategies for implementing a personal knowledge management system
 - 1.3. Recognize and reflect learning issues in practice
 - 1.4. Conduct personal practice audits
 - 1.5. Pose an appropriate learning question
 - 1.6. Access and interpret the relevant evidence
 - 1.7. Integrate new learning into practice
 - 1.8. Evaluate the impact of any change in practice
 - 1.9. Document the learning process
- 2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions**
 - 2.1. Describe the principles of critical appraisal
 - 2.2. Critically appraise retrieved evidence in order to address a medico-legal question
 - 2.3. Integrate critical appraisal conclusions into forensic practice
- 3. Facilitate the learning of clients, families, students, residents, other health professionals, the public, law enforcement personnel, coroners, attorneys, lawyers, and other members of the medico-legal team and others, as appropriate**
 - 3.1. Describe principles of learning relevant to medical education
 - 3.2. Identify collaboratively the learning needs and desired learning outcomes of others including law enforcement personnel, coroners, attorneys, lawyers, and other members of the medico-legal team
 - 3.3. Select effective teaching strategies and content to facilitate others' learning
 - 3.4. Demonstrate an effective lecture or presentation
 - 3.5. Assess and reflect on a teaching encounter
 - 3.6. Provide effective feedback
 - 3.7. Describe the principles of ethics with respect to teaching

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
- 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 appropriately

Professional

Definition:

As *Professionals*, Forensic Pathologists 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: Forensic Pathologists are able to...

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

- 1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect, responsibility and altruism
- 1.2. Demonstrate a commitment to delivering the highest quality services and maintenance of competence
 - 1.2.1. Appreciate the crucial role of the Forensic Pathologist in death investigation. This will include knowledge of findings, knowledge of the limitations of certain findings and knowledge of individual professional limitations and the necessity of seeking appropriate second opinions
- 1.3. Recognize and appropriately respond to ethical issues encountered in practice
- 1.4. Manage conflicts of interest appropriately
 - 1.4.1. Recognize the need for a balanced approach when addressing competing issues and presenting Forensic Pathology information in the medico-legal setting
- 1.5. Recognize the principles and limits of client confidentiality and privacy as defined by professional practice guidelines and the law
- 1.6. Maintain appropriate relations with clients

2. Demonstrate a commitment to their clients, profession and society through participation in profession-led regulation

- 2.1. Demonstrate knowledge and an understanding of the professional, legal and ethical codes of practice
 - 2.1.1. Demonstrate knowledge and an understanding of the criminal, civil and inquest court procedures, the role of the Crown and the defense and the rules of evidence employed
 - 2.1.2. Familiarize themselves with the legal, ethical and behavioural requirements when testifying in court
- 2.2. Fulfill the regulatory and legal obligations required of current practice
- 2.3. Demonstrate accountability to professional regulatory bodies
- 2.4. Recognize and respond to others' unprofessional behaviours in practice
- 2.5. Participate in peer review

3. Demonstrate a commitment to physician health and sustainable practice

- 3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
- 3.2. Strive to heighten personal and professional awareness and insight
- 3.3. Recognize other professionals in need and respond appropriately

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