Entrustable Professional Activities for Anatomical Pathology

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This document is to be used in conjunction with the Entrustable Professional Activity User Guide, which is available on the Royal College's website.

This document is effective as soon as deemed feasible by the program.

Anatomical Pathology: Transition to Discipline EPA #1

Participating in basic specimen handling

Key Features:

- This EPA includes the use of the basic knowledge covered in the orientation to the laboratory in order to: match requisition and container and/or specimen; systematically verify the adequacy of patient and clinical information (requisition adequacy and completeness such as documentation of ischemic time) to initiate laboratory evaluation of a specimen; assess and prepare selected simple surgical specimens which are defined as single organ, routine indications and/or routine surgical specimens (e.g., appendix, gallbladder, simple hysterectomy for fibroids/uterine prolapse, colon for diverticulosis, ischemic small bowel) for fixation; select and recognize the appropriate fixative type (formalin, alcohol) and assess whether the quantity and size of the specimen container is appropriate; and match slides, blocks, and requisition.
- The observation of this EPA is divided into two parts: specimen handling; and assessment of knowledge.
- The assessment of knowledge will consist of a structured oral or a written multiple-choice quiz, designed and administered by the supervising pathologist, on content related to the topic of specimen handling.

Assessment Plan:

Part A: Specimen handling
Direct observation or case review by pathologist, Core or TTP trainee, histotech, or pathology assistant

Use form 1. Form collects information on:

- Specimen type: appendix; gallbladder; simple hysterectomy for fibroids or prolapse; colon for diverticulosis; small bowel; other
- Fixative: fresh; formalin; alcohol

Collect 5 observations of achievement
- A variety of specimen types

Part B: Assessment of knowledge
Evidence of satisfactory completion of a structured oral or written quiz administered by the supervising pathologist

Use Form 4.

Collect 1 observation of achievement

CanMEDS Milestones:

Part A: Specimen handling
1 **ME 1.3 Apply knowledge of normal anatomy, physiology, and biochemistry**
2 **ME 1.3** Apply knowledge of principles of cell biology, immunology, genetics, and pathogenic mechanisms, and the changes that occur in disease states
3 **ME 1.3 Apply basic knowledge of normal gross and/or light microscopic appearance of tissues**
4 **ME 2.2 Identify basic principles of specimen adequacy as they apply to surgical and cytopathology specimens**
5 **ME 3.3 Recognize and discuss the importance of the triaging and timing of a procedure or therapy**
6 **ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite, and autopsy suite to minimize occupational risk**
7 **COM 4.1** Organize information in appropriate sections within an electronic or written medical record
8 **COL 2.1** Respond to requests and feedback in a respectful and timely manner
9 **L 1.2** Demonstrate knowledge of laboratory safety initiatives
10 **L 1.4** Describe the data available from health information systems to optimize patient care
11 **P 1.1** Demonstrate punctuality
12 **P 1.1** Complete assigned responsibilities

Anatomical Pathology: Transition to Discipline EPA #2

Summarizing relevant clinical information for clinicopathologic correlation

Key Features:

- This EPA focuses on extracting clinical information, including clinical history and relevant laboratory and imaging results, from a number of different sources (including electronic), interpreting this information in light of the clinical question, and providing a summary.
- This EPA may be observed in surgical pathology, cytopathology, or autopsy pathology.

Assessment Plan:

Case discussion and/or review of written clinical summary by supervisor (may include pathologist or Core or TTP trainee)

Use form 1. Form collects information on:

- Location: surgical pathology; cytopathology; autopsy pathology; other

Collect 3 observations of achievement

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of normal anatomy, physiology, and biochemistry
2 **ME 1.3** Apply knowledge of principles of cell biology, immunology, genetics, and pathogenic mechanisms, and the changes that occur in disease states
3 **ME 2.2 Obtain a relevant clinical history**
4 **COM 2.3** Seek and integrate relevant information from other sources
5 **ME 2.2 Interpret history and relevant investigations in light of the clinical question**
6 **ME 2.2 Synthesize and organize clinical information for clear and succinct presentation to supervisor**
7 **HA 1.1 Analyze a given patient's needs for health services or resources related to the scope of Anatomical Pathology**

Anatomical Pathology: Transition to Discipline EPA #3

Demonstrating basic skills in microscopy

Key Features:

- This EPA focuses on using a microscope correctly and troubleshooting its principal problems.
- This includes: setting up the microscope (turning it on, adjusting the focus), using a polarizer and micrometer, understanding ergonomic setup; performing basic microscope maintenance such as changing objectives and bulbs; and viewing the slide.
- The observation of this EPA is divided into two parts: microscopy; and assessment of knowledge.
- The observation of microscopy is based on the resident driving the double/ multi-headed microscope in the review of slides.
- The assessment of knowledge will consist of a structured oral or a written multiple-choice quiz, designed and administered by the supervising pathologist, on content related to the topic of microscopy.

Assessment Plan:

Part A: Microscopy
Direct observation by supervisor

Use form 2.

Collect at least 1 observation of achievement

Part B: Assessment of knowledge
Evidence of satisfactory completion of a structured oral or written quiz administered by the supervising pathologist

Use form 4.

Collect 1 observation of achievement

CanMEDS Milestones:

Part A: Microscopy

1 **ME 1.3 Apply basic knowledge of normal gross and/or light microscopic appearance of tissues**
2 **ME 1.3 Apply knowledge of how a light microscope works**
3 **ME 3.4 Use a light microscope to examine microscopic slides**
4 **ME 3.4 Perform basic microscope maintenance**

Anatomical Pathology: Transition to Discipline EPA #4

Creating a personal teaching and learning plan

Key Features:

- The observation of this EPA is divided into 2 parts: creating and maintaining a clinical training portfolio; and presenting a personal learning project, including identifying a topic, identifying and utilizing information sources, presenting the topic to a group and assessing the process (including self-assessment).

Assessment Plan:

Part A: Clinical training portfolio
Resident's submission of teaching and learning plan reviewed by pathologist, or TTP trainee or academic advisor

Use form 4.

Collect 1 observation of achievement

Part B: Personal learning project
Direct observation by supervisor

Use form 1.

Collect 1 observation of achievement

CanMEDS Milestones:

Part A: Clinical training portfolio

1 **S 1.2** Use feedback to enhance self-assessment and improve learning
2 **S 1.1** Create a learning plan in collaboration with a designated supervisor identifying learning needs related to Anatomical Pathology and career goals
3 **S 1.1** Use technology to support learning in medicine

Part B: Personal learning project

1 **S 1.2 Identify and record learning needs that arise in daily work, and apply strategies to address those gaps**
2 **S 3.3 Identify relevant sources of information**
3 **S 3.3 Determine the validity and risk of bias in a source of evidence**
4 **S 4.5 Summarize and communicate to peers the findings of a literature search**

Anatomical Pathology: Foundations EPA #1

Performing gross dissection of simple surgical specimens, from accessioning to submission of blocks

Key Features:

- This EPA includes grossing select simple specimens, defined as single organ, routine indications and/or routine surgical specimens.
- Examples include: simple hysterectomy for fibroids, skin ellipses, appendix, gallbladder, reduction mastectomy, panniculectomy, colon for diverticulosis, and tissue biopsies.
- This EPA also includes adherence to safety and quality assurance protocols, and existing grossing protocols.

Assessment plan:

Direct or indirect observation by pathologist, pathology assistant, or Core or TTP trainee

Use form 2. Form collects information on:

- Observation: direct; indirect
- Specimen type (write in):

Collect 10 observations of achievement

- At least 5 direct observations by a pathologist or Core or TTP trainee
- A variety of cases

CanMEDS Milestones:

1 **ME 5.2 Ensure safe practices in the laboratory including applying universal precautionary measures, using PPE, and maintaining an organized workstation**
2 **ME 1.3 Apply knowledge of normal anatomy and gross appearances of tissues**
3 **ME 1.3 Apply knowledge of the principles of tissue fixation, decalcification, processing, and the potential impact of improper handling of fresh tissues**
4 **ME 2.2** Obtain a relevant clinical history
5 **ME 3.4 Perform appropriate dissection, description, and sampling of surgical specimens for routine and ancillary procedures**
6 **ME 3.4 Work efficiently, ensuring appropriate fixation in a timely manner**
7 **ME 3.4** Seek assistance as needed
8 **COM 4.1 Document using standardized grossing templates and/or descriptions and protocols as much as possible**
9 **L 4.1** Organize work using strategies that address strengths and identify areas to improve in personal effectiveness

Anatomical Pathology: Foundations EPA #2

Microscopic reviewing and reporting of simple surgical specimens

Key Features:

- This EPA focuses on providing an interpretation of select simple surgical specimens, defined as single organ, routine indications and/or routine surgical specimens.
- Examples include: simple hysterectomy for fibroids, skin ellipses, appendix, gallbladder, reduction mastectomy, panniculectomy, colon for diverticulosis and tissue biopsies.
- This includes identifying normal and abnormal histology, obtaining additional investigations such as special stains/immunohistochemistry as directed, and using the LIS/EMR to obtain additional clinical information where appropriate.
- It also includes preparing a draft pathology report following the case review with attending staff.
- The case mix should represent simple biopsies, and routine surgical (benign) specimens as suggested by the grossing guidelines (e.g., L4E (level 2 or 3) / or CPT codes (88305)).

Assessment plan:

Direct observation by General or Anatomical Pathologist or Core or TTP trainee

Use form 1. Form collects information on:

- Organ System: breast; bone & soft tissue; gynecology; gastrointestinal; genito-urinary; head & neck; endocrine; skin; cardiovascular; thoracic; neuropathology; lymph nodes & spleen

Collect 10 observations of achievement

- At least 4 organ systems
- At least 3 different observers
- At least 2 observed by surgical pathologists

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of the principles of tissue fixation, decalcification, processing, and the impact of improper handling of fresh tissues
2 **ME 1.3** Apply knowledge of routine histochemical staining
3 **ME 1.3 Apply basic knowledge of normal gross and/or light microscopic appearance of tissues**
4 **ME 1.3** Apply knowledge of the principles of and indications for immunohistochemistry and special histochemical stains
5 **ME 2.2 Develop a differential diagnosis**
6 **ME 2.2 Perform a pathological examination that is focused and relevant**
7 **ME 2.2** Select and/or interpret investigations
8 **ME 2.2 Synthesize patient information to determine diagnosis**
9 **COM 4.1 Document microscopic assessment accurately**
10 **ME 3.4** Seek assistance as needed
11 **COM 4.1 Generate a clear, concise report that enhances patient management**
12 **COM 4.1** Identify and correct vague or ambiguous documentation
13 **COM 4.1** Integrate information from ancillary studies and other sources into the pathology report if applicable
14 **COM 4.1** Incorporate the data available from health information systems in the formation of their differential diagnosis and final report
15 **L 4.1** Build relationships with mentors and faculty
16 **S 1.2** Identify, record, prioritize and address learning needs that arise in daily work using various strategies (e.g., scanning the literature, or attending formal or informal education sessions)
17 **S 3.1** Recognize uncertainty and knowledge gaps in clinical and other professional encounters relevant to Anatomical Pathology
18 **P 1.1** Complete assigned responsibilities
19 **P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures

Anatomical Pathology: Foundations EPA #3

Assessing patients and integrating clinical information in the evaluation of disease processes

Key Features:

- This EPA ensures the resident establishes the skills and knowledge of clinical medicine in order to effectively function, in later stages, as a pathology consultant for a wide variety of patients and conditions.
- This EPA includes performing clinical assessments, including history and physical exam, selecting and interpreting the results of investigations, and collaborating with clinical colleagues to develop a differential diagnosis and treatment or management plan.
- It also includes communicating with patients and their families to gather clinical information and convey information about the diagnosis and/or management plan.
- This EPA will be observed in the ambulatory or inpatient setting, with adult and pediatric patients, in a range of medical and surgical clinical conditions.

Assessment Plan:

Direct observation and/or case review by supervisor

Use form 1. Form collects information on:

- Type of observation (select all that apply): direct observation of history and/or physical examination; direct observation of communication with patients; case discussion or chart review
- Setting: Medicine; Surgery; Oncology; other

Collect at least 10 observations of achievement

- At least 2 of each type of observation
- At least 2 each for medicine, surgery, and oncology
- At least 3 assessments from a staff supervisor

CanMEDS Milestones:

1	**ME 1.1** Demonstrate compassion for patients
2	**COM 2.1 Use patient-centred interviewing skills**
3	**ME 2.2 Obtain a relevant clinical history**
4	**ME 2.2 Perform a physical exam that informs the diagnosis**
5	**ME 2.2 Select and/or interpret investigations**
6	**ME 2.2 Develop a differential diagnosis**
7	**ME 2.2 Synthesize and organize clinical information for clear and succinct presentation to supervisor**
8	**ME 2.4 Identify and/or monitor key clinical features in the implementation of a management plan**
9	**COM 3.1 Convey information to the patient and/or family clearly and compassionately**
10	**COM 3.1 Verify and validate the patient's and/or family's understanding of their care**

11 **COL 1.2** Work effectively as a member of the clinical team
12 **COM 4.1 Document the essential elements of a clinical encounter using a structured approach**
13 **P 1.1 Complete assigned responsibilities**

Anatomical Pathology: Foundations EPA #4

Verifying consent and performing chart review for medical autopsy

Key Features:

- This EPA focuses on reviewing the consent form and reviewing and summarizing the chart in preparation for autopsy.

Assessment Plan:

Direct observation by pathologist or TTP trainee

Use form 1.

Collect 2 observations of achievement

CanMEDS Milestones:

1 **ME 1.6** Seek assistance in situations that are complex or new
2 **ME 2.1** Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case
3 **ME 2.2 Obtain a relevant clinical history**
4 **ME 3.2 Describe the provincial and institutional rules governing consent for autopsy**
5 **ME 3.2 Identify the features of an appropriate autopsy consent**
6 **COM 4.1 Identify and correct vague or ambiguous documentation**
7 **COL 1.3** Communicate with clinical staff regarding issues of consent and clinical questions that need to be addressed
8 **ME 4.1 Recognize when a case requires involvement of the medical examiner**
9 **ME 2.2 Synthesize and organize clinical information for clear and succinct presentation to supervisor**
10 **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps
11 **P 3.1** Describe local regulations regarding the reporting of deaths to the medical examiner or coroner

Anatomical Pathology: Foundations EPA #5

Performing basic tasks in autopsy pathology

Key Features:

- This EPA focuses on the basic tasks of an autopsy including performing limited basic procedures.
- Examples include: opening the pulmonary vasculature; opening the aorta, identifying and dissecting the main arteries; opening the bowel; dissecting the pelvic block; obtaining quality photographs as directed; completing required forms for ancillary tests (e.g., microbiology requisitions, biochemistry requisitions).
- Performing a complete autopsy is a task of the Core stage.

Assessment Plan:

Direct observation by pathologist or TTP trainee

Use form 2. Form collects information on:

- Task performed (select all that apply): open the pulmonary vasculature; open the aorta; identify and dissect the main arteries; open the bowel; dissect the pelvic block; obtain quality photographs as directed; complete required forms for ancillary tests; other

Collect 2 observations of achievement

- No more than 1 "other" task

CanMEDS milestones:

1 **ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite, and autopsy suite to minimize occupational risk**
2 **ME 1.3 Apply knowledge of normal anatomy, physiology, and biochemistry**
3 **ME 1.3** Apply basic knowledge of normal gross and/or light microscopic appearance of tissues
4 **ME 1.3** Apply knowledge of the principles of embryologic development and common variations of normal development
5 **ME 2.1** Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case
6 **ME 2.2 Perform a pathological examination that is focused and relevant**
7 **ME 3.4 Perform basic procedures in autopsy pathology**
8 **ME 1.6** Seek assistance in situations that are complex or new
9 **ME 3.4 Photograph specimens**
10 **S 1.2** Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance

Anatomical Pathology: Core EPA #1

Initiating ancillary studies at the time of specimen receipt

Key Features:

- This EPA focuses on applying knowledge of ancillary techniques and their contributions to diagnosis in distributing tissue samples between routine pathologic studies (histology/cytology) and ancillary studies to optimize the diagnostic yield of a specimen.
- This EPA includes handling specimens and submitting tissues for ancillary studies following institutional SOPs and may include, for example: cytogenetics, molecular pathology, in situ hybridization, immunofluorescence, flow cytometry, and electron microscopy.
- This should be observed at the time of specimen receipt, though simulation may be employed for teaching and assessment purposes.
- At this stage, this EPA does not include test interpretation.
- Training experiences in specialized areas such as neuropathology, pediatric pathology and renal pathology are recommended to achieve this EPA.

Assessment Plan:

Direct observation by pathologist, technologist, pathology assistant or TTP trainee

Use form 1. Form collects information on:

- Specimen type (write in):
- Ancillary tests (select all that apply): immunohistochemistry; cytogenetics; molecular; in situ hybridization; immunofluorescence; flow cytometry; electron microscopy; lymphoma protocol; flash freezing of fresh tissue; other

Collect 5 observations of achievement

- A variety of ancillary tests
- At least 1 pathologist observer

CanMEDS Milestones:

1 **ME 1.4** Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
2 **ME 1.6** Develop a plan that considers the current complexity, uncertainty, and ambiguity in a clinical situation
3 **ME 3.1 Recognize when a specimen might require ancillary studies**
4 **ME 3.1 Describe the indications, contraindications, risks, and alternatives for a given test**
5 **ME 2.2 Assess specimen adequacy for ancillary testing**
6 **ME 3.3 Prioritize routine and ancillary studies when specimen adequacy is limited**
7 **ME 3.4 Maintain the integrity required for the specific ancillary study (e.g., nucleic acid integrity for molecular testing, cell membrane for flow cytometry, viable cells for cytogenetics)**
8 **COL 1.3 Consult with clinical colleagues, when appropriate, to ascertain if ancillary studies would be of value**
9 **COL 1.1 Receive and appropriately respond to input from other health care professionals (e.g., pathology assistants, technologists)**

10 L 2.2 Apply evidence and guidelines with respect to resource utilization in common clinical scenarios

Anatomical Pathology: Core EPA #2

Performing gross dissection of routine surgical specimens

Key Features:

- This EPA includes all **routine** surgical specimens defined as oncologic and non-oncologic, single-organ systems (may include lymph nodes) and/or routine indications.
- This includes: Breast: lumpectomy, prophylactic mastectomy, gynecomastia; Bone & soft tissue: curetting, non-tumor amputations; Skin: wide local excisions; Gynecologic pathology: hysterectomy for endometrial cancers, prophylactic for Lynch syndrome, ovary resection, cone/LEEP, placenta, prophylactic BSO (SEE FIM); Gastrointestinal pathology: colectomy for benign/malignant conditions; Genitourinary pathology: prostatectomy, TURP, partial nephrectomy; Endocrine: adrenal simple procedures, thyroidectomy, parathyroidectomy; Head & neck pathology: glossectomy, salivary gland resection; Lymph nodes and spleen: lymph nodes, splenectomy; Neuropathology; Thoracic pathology: lobectomy, wedge resection, pleurectomy, valves
- The observation of this EPA may be based on direct or indirect observation.
- Direct observation is defined as the supervisor observing all or a component of the grossing of a surgical specimen; this may involve the discussion and elaboration of 'an approach' to the surgical specimen between the supervisor and resident, review of surgical specimens at daily grossing rounds, and/or simulations of select gross cases.
- Indirect observation includes the review of a 'gross description' by a supervisor after completion of grossing, including correlation with gross photography, mapping of sections, and descriptions; re-review of a surgical specimen with the resident following initial grossing (e.g., additional blocks); and/or discussion of specific protocols or approaches (e.g., College of American Pathologists) as they pertain to specific organ systems.

Assessment plan:

Direct or indirect observation by staff pathologist with feedback from PA or TTP trainee review of gross description

Use form 2. Form collects information on:

- Organ system: breast; bone & soft tissue; skin; gynecology; gastrointestinal; genitourinary; endocrine; head & neck; lymph nodes & spleen; neuropathology; thoracic
- Specimen type (write in):
- Pediatric: yes; no

Collect at least 30 observations of achievement

- A variety of organ systems
- A variety of specimens
- At least 4 in each of breast, skin, gynecology, gastrointestinal, and genitourinary
- At least 8 different observers

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of normal gross examination
2 **ME 2.2** Perform a pathological examination that is focused and relevant
3 **ME 2.2 Review clinical history, imaging and other relevant data as necessary**
4 **ME 3.4 Perform gross dissection, description and sampling of surgical specimens, applying meticulous attention to block selection and mapping using diagrams and images and demonstrating awareness of downstream synoptic reporting and staging parameters, and the need to save tissue for research, tissue bank and other indications, as necessary**
5 **ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite, and autopsy suite to minimize occupational risk**
6 **L 1.1 Participate in quality management by minimizing cross contamination and using standardized grossing templates and protocols as appropriate**
7 **ME 3.4 Seek assistance as needed**
8 **ME 3.4 Take high quality photographs of specimens**
9 **ME 2.2 Formulate a differential diagnosis based on the pathological examination**
10 **COM 4.1 Communicate findings in a timely fashion, with appropriate documentation**

Anatomical Pathology: Core EPA #3

Performing gross dissection of complex surgical specimens

Key Features:

- This EPA includes all **complex** surgical specimens, defined as oncologic staging surgeries, single organ specimens of complex anatomy, multi organ specimens, specimens for non-routine indications or other unique situations such as those requiring a contextual awareness of the case.
- Examples of complex gross examinations include: Whipple resections, low anterior resection, abdominoperineal resection, exenteration, esophagectomy, endoscopic mucosal resection, gallbladder cancer with debulking, Hirschprung (pull through), prophylactic gastrectomy; Neck lymph node dissection, total laryngectomy, oral tumor resections with bone; Vulvectomy, multigestation placenta, radical hysterectomy; Post chemotherapy breast resections; Soft tissue/bone tumor amputations; Post treatment resections in other organ systems; Total cystectomy, radical nephrectomy
- The observation of this EPA may be based on direct or indirect observation.
- Direct observation is defined as the supervisor observing all or a component of the grossing of a surgical specimen; this may involve the discussion and elaboration of 'an approach' to the surgical specimen between the supervisor and resident, review of surgical specimens at daily grossing rounds, and/or simulations of select gross cases.
- Indirect observation includes the review of a 'gross description' by a supervisor after completion of grossing, including correlation with gross photography, mapping of sections, and descriptions; re-review of a surgical specimen with the resident following initial grossing (e.g., additional blocks); and/or discussion of specific protocols or approaches (e.g., College of American Pathologists) as they pertain to specific organ systems.

Assessment plan:

Direct or indirect observation by staff pathologist with feedback from PA or TTP trainee review of gross description

Use form 2. Form collects information on:

- Organ system: breast; bone & soft tissue; skin; gynecology; gastrointestinal (including hepatobiliary/pancreas); genitourinary; endocrine; head & neck; lymph nodes & spleen; neuropathology; thoracic
- Specimen type (write in):
- Pediatric: yes; no

Collect 60 observations of achievement encompassing a wide breadth of presentations

- A variety of systems
- A variety of specimens
- At least 10 gastrointestinal
- At least 8 in each of gynecology, genitourinary, and breast
- At least 3 head & neck
- At least 3 pediatric

- At least 8 different observers

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of normal gross examination
2 **ME 2.2** Perform a pathological examination that is focused and relevant
3 **ME 2.2 Review clinical history, imaging and other relevant data as necessary**
4 **ME 3.4 Perform gross dissection, description and sampling of surgical specimens, applying meticulous attention to block selection and mapping using diagrams and images and demonstrating awareness of downstream synoptic reporting and staging parameters, and the need to save tissue for research, tissue bank and other indications, as necessary**
5 **COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
6 **ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite and autopsy suite to minimize occupational risk**
7 **L 1.1 Participate in quality management by minimizing cross contamination and using standardized grossing templates and protocols as appropriate**
8 **ME 3.4 Seek assistance as needed**
9 **ME 3.4 Take high quality photographs of specimens**
10 **ME 2.2 Formulate a differential diagnosis based on the pathological examination**
11 **COM 4.1 Communicate findings in a timely fashion, with appropriate documentation**

Anatomical Pathology: Core EPA #4

Generating diagnostically accurate and complete pathology reports for routine surgical pathology cases

Key Features:

- This EPA focuses on managing a routine surgical pathology case from receipt of the H&E-stained glass slides, to generation of a report.
- A routine case is one with a diagnosis that is common and typically easily rendered, and that has relatively easily assessed reporting elements. Examples of this case type include: routine gastrointestinal, breast core and bladder biopsies, and resection specimens such a simple hysterectomies and breast lumpectomies for benign disease.
- This EPA includes matching the specimen with the requisition, ensuring that the correct patient material has been received with appropriate and accurate documentation, and that the processing has rendered the case satisfactory for interpretation (if not, pre-analytical issues that may have arisen should have been brought to the attention of the staff pathologist).
- This EPA includes using the laboratory and hospital information systems to gather relevant history, using a microscope (including a polarizer) correctly, reviewing the case in a timely fashion, generating a diagnosis and/or differential diagnosis, selecting and interpreting ancillary studies (special/immunostains, levels, etc.) and providing an accurate report ready for verification and review with staff.
- Organization and prioritization of work is an additional feature, and includes appropriate management of urgent cases, critical values, and reportable diseases.
- This EPA may include communication with clinicians, or other house staff.

Assessment Plan:

Direct and indirect observation with review of resident's submission of report by pathologist or TTP trainee

Use form 1. Form collects information on:

- Diagnosis (write in):
- Organ system: breast; bone & soft tissue; skin; gynecology; gastrointestinal; genitourinary; endocrine; head & neck; lymph nodes & spleen; neuropathology; thoracic
- Pediatric: yes; no
- Specimen type: biopsy; resection; other

Collect at least 100 observations of achievement encompassing a wide breadth of presentations

- At least 10 from each breast, gynecology, gastrointestinal, genitourinary, and skin
- A variety of organ systems
- At least 5 pediatric
- A variety of specimens and diagnosis, including malignant and non-malignant, biopsies and surgical resection
- At least 8 different observers

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of gross and microscopic appearances of tissues in disease states
2 **ME 1.3** Apply knowledge of the principles of and indications for ancillary diagnostic techniques
3 **ME 2.2 Perform a microscopic pathological examination that is focused and relevant**
4 **ME 1.6** Seek assistance in situations that are complex or new
5 **ME 2.2** Obtain a relevant clinical history
6 **ME 2.2 Formulate a differential diagnosis based on the pathological examination**
7 **ME 2.2 Select ancillary techniques judiciously in a resource-effective and ethical manner**
8 **ME 3.4** Use digital microscopy and interpret gross and microscopic digital images, including digitized and scanned slides
9 **ME 2.2 Establish a final diagnosis that takes into account clinical correlations**
10 **ME 5.2** Apply the principles of situational awareness to clinical practice
11 **COM 4.1 Prepare clear, concise, comprehensive, and timely written reports for surgical pathology**
12 **COM 4.1** Integrate information from ancillary studies and other sources into the pathology report
13 **ME 1.4** Complete pathology reports within appropriate turnaround times
14 **COL 1.3** Convey information from the pathology assessment to clinicians in a manner that enhances patient management
15 **HA 1.1** Respond to individual patient diagnostic needs and issues as part of patient care
16 **L 2.1** Develop practice-based and system-based rules for resource allocation
17 **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps

Anatomical Pathology: Core EPA #5

Generating diagnostically accurate and complete pathology reports for complex surgical pathology cases

Key Features:

- This EPA focuses on managing a complex surgical pathology case from receipt of the H&E-stained glass slides, to generation of a report.
- A complex case is one with a diagnosis that is uncommon, difficult to render or that has reporting elements with considerable inter-observer variability. Cases in which the differential diagnosis cannot be resolved are included in this category. Examples include: skin biopsies for suspicious melanocytic lesions or inflammatory dermatoses, kidney biopsies, most oncologic resections with synoptic reporting protocols, specimens containing multiple organs where the disease process may involve more than one organ.
- This EPA includes matching the specimen with the requisition, ensuring that the correct patient material has been received with appropriate and accurate documentation, and that the processing has rendered the case satisfactory for interpretation (if not, pre-analytical issues that may have arisen should have been brought to the attention of the staff pathologist).
- This EPA includes correlation with relevant clinical history, gross description, diagnostic imaging, laboratory tests, and previous pathology, generation of a diagnosis and/or differential diagnosis, selection and interpretation of ancillary studies (special/immunostains, levels, etc.) and provision of an accurate report, using synoptic reporting as needed, ready for verification and review with staff.
- Organization and prioritization of work is an additional feature, and includes appropriate management of urgent cases, critical values and reportable diseases.
- This EPA may include communication with clinicians, or other house staff, and consultation with other pathologists.

Assessment plan:

Direct and indirect observation with review of resident's submission of report by pathologist or TTP trainee

Use form 1. Form collects information on:

- Diagnosis (write in):
- Organ system: breast; bone & soft tissue; skin; gynecology; gastrointestinal; genitourinary; endocrine; head & neck; lymph nodes & spleen; neuropathology; thoracic
- Pediatric: yes; no
- Specimen type: biopsy; resection; other

Collect at least 100 observations of achievement encompassing a wide breadth of presentations

- At least 10 from each of gynecology, gastrointestinal, genitourinary and breast
- A variety of other organ systems
- At least 3 pediatric
- A variety of specimens and diagnosis, including malignant and non-malignant,

biopsies and surgical resection
- At least 8 observers

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of gross and microscopic appearances of tissues in disease states
2 **ME 1.3** Apply knowledge of the principles of and indications for ancillary diagnostic techniques
3 **ME 2.2** Perform a microscopic pathological examination that is focused and relevant
4 **ME 1.6** Seek assistance in situations that are complex or new
5 **ME 2.2 Formulate a differential diagnosis based on the pathological examination**
6 **ME 2.2 Select ancillary techniques judiciously in a resource-effective and ethical manner**
7 **ME 3.4** Use digital microscopy and interpret gross and microscopic digital images, including digitized and scanned slides
8 **ME 2.2 Establish a final diagnosis that takes into account clinical correlations**
9 **ME 4.1 Determine the need and timing of referral to another specialist and/or second opinion**
10 **ME 1.4** Complete pathology reports within appropriate turnaround times
11 **COL 1.3** Convey information from the pathology assessment to clinicians in a manner that enhances patient management
12 **COM 4.1 Prepare clear, concise, comprehensive, and timely written reports, for surgical pathology**
13 **COM 4.1 Integrate information from ancillary studies and other sources into the pathology report**
14 **COM 4.1 Use synoptic and other standardized reporting formats as appropriate**
15 **COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
16 **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps

Anatomical Pathology: Core EPA #6

Performing medical autopsies and generating complete and diagnostically accurate reports

Key Features:

- This EPA focuses on medical autopsy, from receipt of the chart and consent form to the generation of an accurate, timely, and clinically relevant final report.
- This may include autopsies performed for natural deaths in a forensic centre.
- This includes performing the external examination, organ evisceration, organ dissection, gross examination including diagnosing any pathology, drafting a preliminary report, ordering ancillary testing when necessary, examining the microscopic slides and drafting the final opinion and report.
- This also includes modifying standard autopsy procedures as necessary.
- This EPA includes limited autopsies (examples: chest, heart or brain only) and pediatric/fetal/perinatal cases.
- The observation of this EPA is divided into three parts: initial assessment and preliminary report; organ evisceration; interpretation and final report.

Assessment Plan:

Part A: Initial assessment and preliminary report
Direct observation by pathologist or TTP trainee

Use form 1. Form collects information on:

- Case details: full; limited
- Provisional/favoured cause of death: cardiac; pulmonary (non-infectious); gastrointestinal; infectious; malignancy; other
- Pediatric/fetal/perinatal case: no; yes

Collect at least 6 observations of achievement

- At least 1 pediatric, fetal or perinatal case
- At least 2 different pathologist observers

Part B: Organ evisceration
Direct observation by pathologist, TTP trainee, pathology assistant or autopsy technician

Use form 2. Form collects information on:

- Pediatric/fetal/perinatal case: no; yes

Collect 5 observations of achievement

- At least 1 pediatric, fetal or perinatal case
- At least 1 pathologist observer

Part C: Interpretation and final report
Case review with pathologist

Use form 1. Form collects information on:

- Case details: full; limited
- Final cause of death: cardiac; pulmonary (non-infectious); gastrointestinal; infectious; malignancy; other
- Pediatric/fetal/perinatal: no; yes

Collect 6 observations of achievement
- At least 1 pediatric, fetal, or perinatal case
- At least 2 different pathologist observers

CanMEDS Milestones:

Part A: Initial assessment and preliminary report

1 **ME 3.2 Ensure autopsy consent has been obtained and documented correctly**
2 **ME 1.3** Apply knowledge of normal anatomy, physiology, and biochemistry
3 **ME 1.3** Apply knowledge of the principles of embryologic development and common variations of normal development
4 **ME 1.3** Apply knowledge of gross and microscopic appearances of tissues in disease states
5 **ME 1.3** Apply knowledge of the principles of and indications for ancillary diagnostic techniques
6 **ME 1.6** Seek assistance in situations that are complex or new
7 **ME 2.2** Obtain a relevant clinical history
8 **ME 2.1** Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case
9 **ME 2.2** Perform a pathological examination that is focused and relevant
10 **ME 2.2** Select ancillary techniques judiciously in a resource-effective and ethical manner
11 **ME 3.4 Perform a complete autopsy, with appropriate full description and diagnosis at gross and microscopic levels**
12 **ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite, and autopsy suite, to minimize occupational risk**
13 **COL 1.2** Work effectively with laboratory technologists and pathology assistants, directing their assistance
14 **ME 3.4 Interpret the findings of autopsy in the context of the relevant clinical history**
15 **ME 3.4** Document procedures accurately
16 **COM 4.1 Prepare clear, concise, comprehensive, and timely written reports for autopsy consultations**

Part B: Organ evisceration

1 **ME 1.3 Apply knowledge of normal anatomy, physiology, and biochemistry**
2 **ME 1.6 Seek assistance in situations that are complex or new**
3 **ME 3.4 Perform organ evisceration**
4 **ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite, and autopsy suite, to minimize occupational risk**
5 **COL 1.2 Work effectively with laboratory technologists and pathology assistants, directing their assistance**
6 **COM 3.2** Communicate and document issues arising from a breach in quality or safety of laboratory practice
7 **COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
8 **L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations
9 **S 1.2** Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance

Part C: Investigation, interpretation and final report

1 **ME 1.3** Apply knowledge of principles of cell biology, immunology, genetics, and pathogenic mechanisms, and the changes that occur in disease states
2 **ME 1.3 Apply knowledge of normal gross, light microscopic, and ultrastructural appearance of tissues**
3 **ME 1.3 Apply knowledge of gross and microscopic appearances of tissues in disease states**
4 **ME 2.1** Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case
5 **ME 2.2 Perform a gross and microscopic pathological examination that is focused and relevant**
6 **ME 3.4 Utilize other areas of laboratory medicine, including microbiology, for diagnostic purposes**
7 **ME 3.4 Interpret the findings of autopsy in the context of the relevant clinical history**
8 **ME 4.1** Determine the need and timing of referral to another specialist and/or second opinion
9 **COM 4.1 Prepare clear, concise, comprehensive, and timely written reports for autopsy consultations**
10 **COM 4.1 Integrate information from ancillary studies and other sources into the pathology report**
11 **COL 1.2** Consult as needed with other health care professionals, including other physicians
12 **HA 1.2 Alert treating physicians when potentially detectable inherited conditions are encountered (e.g., genetic diseases that may affect a sibling)**
13 **P 3.1** Fulfil the requirements of the physician's duty to report
14 **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps
15 **P 3.3** Prepare an autopsy for presentation at M&M rounds or departmental autopsy rounds

Anatomical Pathology: Core EPA #7

Performing routine forensic autopsies and generating complete and diagnostically accurate reports

Key Features:

- This EPA focuses on adult and older child cases, with manner of death including non-suspicious injuries, suicide, sudden natural deaths, intoxications, and complications of therapy.
- This EPA includes correctly performing pre-autopsy assessments, performing the external examination and gross dissection, recognizing and describing evidence of disease and/or injury, obtaining appropriate samples for ancillary testing, preparing autopsy reports, examining microscopic slides, interpreting ancillary results and drafting a final report including final opinion with the cause of death, and recognition of common forensic artifacts.
- This EPA also includes recognizing a case needing forensic autopsy, directing photography and/or taking photographs as appropriate, preparing a forensic autopsy report in the correct format that includes a cause of death statement that may inform determination of the manner of death in routine cases.
- The observation of this EPA is divided into 2 parts: pre-autopsy assessment, dissections and examinations; interpretation and final report.
- The observation of this EPA does not require that the resident has participated in both aspects (i.e., resident can interpret and report cases for which they were not the original prosector).

Assessment Plan:

Part A: Pre-autopsy assessment, dissections and examinations
Direct observation by forensic pathologist, pathologist, or forensic pathology subspecialty trainee

Use form 1. Form collects information on:

- Case type: natural death; multiple trauma; decomposed remains; intoxication; hanging; bodies from uncontrolled environments; post-procedure death; other
- Cause of death (write in):
- Manner of death: natural; accident; suicide; undetermined
- Special dissections performed: yes; no

Collect 6 observations of achievement

- At least 3 case types
- At least 2 different observers

Part B: Interpretation and final report
Direct observation by forensic pathologist, pathologist, or forensic pathology subspecialty trainee

Use form 1. Form collects information on:

- Case type: natural death; multiple trauma; decomposed remains; intoxication;

hanging; bodies from uncontrolled environments; post-procedure death; other
- Cause of death (write in):

Collect 6 observations of achievement
- At least 3 case types
- At least 2 different observers

CanMEDS Milestones:

Part A: Assessment, dissections and examinations

1 **ME 3.2** Ensure autopsy consent has been obtained and documented correctly
2 **ME 2.2 Obtain a relevant clinical history**
3 **ME 2.2 Perform a pathological examination that is focused and relevant**
4 **ME 2.2 Recognize common forensic artifacts**
5 **ME 2.2 Select ancillary techniques judiciously in a resource-effective and ethical manner**
6 **ME 3.4 Perform a complete forensic autopsy, including but not limited to toxicological examination and the submission of specimens to the forensic sciences laboratory**
7 **ME 1.3** Apply knowledge of gross and microscopic appearances of tissues in disease states
8 **ME 1.3** Apply knowledge of the principles of and indications for ancillary diagnostic techniques
9 **ME 1.6 Seek assistance in situations that are complex or new**
10 **ME 2.1** Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case
11 **ME 3.4 Interpret the findings of autopsy in the context of the relevant clinical history**
12 **COL 1.2 Work effectively with laboratory technologists and pathology assistants, directing their assistance**
13 **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps
14 **P 3.1** Demonstrate understanding of the laws and policies relevant to conducting forensic investigations
15 **P 3.1** Adhere to requirements related to reportable diseases, including infectious diseases
16 **P 3.1** Describe local regulations regarding the reporting of deaths to the medical examiner or coroner

Part B: Interpretation and final report

1 **ME 1.3 Apply knowledge of gross and microscopic appearances of tissues in disease states**
2 **ME 2.1** Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case
3 **ME 2.2 Interpret the findings of autopsy in the context of the relevant clinical history**
4 **COM 4.1 Prepare clear, concise, comprehensive, and timely written reports for autopsy consultations**
5 **COM 4.1 Integrate information from ancillary studies and other sources into the pathology report**
6 **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps
7 **P 2.1** Demonstrate a commitment to the promotion of the public good in health care, including stewardship of resources
8 **P 3.1** Demonstrate understanding of the laws and policies relevant to conducting forensic investigations
9 **P 3.1 Adhere to requirements related to reportable diseases, including infectious diseases**

Anatomical Pathology: Core EPA #8

Selecting, interpreting, and integrating molecular test results

Key Features:

- This EPA focuses on the role of molecular pathology in anatomic pathology practice, and includes in situ hybridization, PCR-based testing, cytogenetics, and next-generation sequencing.
- This EPA includes assessing specimen adequacy for molecular testing and suggesting appropriate tests, typically after review of light microscopy, as well as interpreting and/or integrating the molecular results into the final report.
- This EPA does not include the interpretation of complex raw data (e.g., next-generation sequencing).
- This EPA may be observed in simulation.

Assessment Plan:

Direct observation (i.e., interpreting select molecular tests) and/or case discussion, report review, and case collection by pathologist

Use form 1. Form collects information on:

- Organ system: breast; bone & soft tissue; skin; gynecology; gastrointestinal; genitourinary; endocrine; head & neck; lymph nodes, spleen and bone marrow; neuropathology; thoracic
- Test type: in-situ hybridization; PCR-based testing; cytogenetics; next-generation sequencing; other

Collect 15 observations of achievement

- A variety of test types

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of principles of cell biology, immunology, genetics, and pathogenic mechanisms, and the changes that occur in disease states
2 **ME 1.3** Apply knowledge of general concepts related to the human genome, human genes, and inheritance of DNA
3 **ME 1.3 Apply knowledge of general concepts of inherited and somatic disease**
4 **ME 1.3** Apply knowledge of the essential elements of adequate analytical validation for genetics-based tests
5 **ME 1.3** Apply knowledge of the principles of and indications for ancillary diagnostic techniques
6 **ME 1.3 Apply knowledge of appropriate sample requirements and handling**
7 **ME 3.1** Describe the advantages and limitations of molecular testing as an adjunct to cytopathologic evaluation of cellular specimens
8 **ME 2.2 Select additional testing based on an appreciation of the diagnostic possibilities, the clinical context and the relevance and capabilities of available technologies**
9 **L 2.1** Utilize genetic testing resources effectively to balance costs with potential utility of results
10 **ME 4.1** Coordinate the use of multiple diagnostic investigations so as to ensure complementarity and efficiency

11 **ME 3.3 Prioritize routine and ancillary investigations when specimen adequacy is limited**
12 **ME 5.1 Recognize sources of analytical error for various molecular tests**
13 **ME 2.2 Interpret molecular diagnostic test results together with available clinical and histopathological data**
14 **COM 4.1 Integrate molecular results into the anatomical pathology report**
15 **HA 1.2** Describe the role of molecular methods used to screen for inherited/familial cancer syndromes
16 **S 3.3** Critically assess the current knowledge as related to molecular diagnostics in the practice of AP with special emphasis in oncology and inherited diseases
17 **P 1.3** Describe the role and apply knowledge of the ethics of genetic screening in family planning and for hereditary cancers
18 **P 3.1** Ensure compliance with privacy regulations as they apply to the use of genetic information
19 **P 3.1** Recognize the medicolegal implications in the practice of genetics

Anatomical Pathology: Core EPA #9

Selecting, interpreting and integrating ancillary and biomarker diagnostic techniques

Key Features:

- This EPA includes ancillary tests including immunohistochemistry, special histochemical stains, flow cytometry, immunofluorescence, electron microscopy and may include polarized light examination.
- This EPA includes assessing specimen adequacy and selecting appropriate studies when indicated, typically after review of light microscopy, as well as interpreting the test, and integrating the results into the final diagnosis and report.

Assessment Plan:

Direct and indirect observation by pathologist

Use form 1. Form collects information on:

- Organ system: breast; bone & soft tissue; skin; gynecology; gastrointestinal; genitourinary; endocrine; head & neck; lymph nodes & spleen; neuropathology; thoracic
- Specimen type: cytology; other
- Test type: immunohistochemistry; class 1 biomarkers; class 2 biomarkers; special histochemical stains; flow cytometry; immunofluorescence; electron microscopy; polarized light examination; other

Collect 30 successful observations of achievement

- A variety of organ systems
- At least 3 cytology
- At least 5 observations of each: immunohistochemistry, special stains, and flow cytometry
- At least 5 class 1 biomarker assessments
- At least 3 observations of electron microscopy and/or immunofluorescence
- At least 2 different pathologists

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of principles of cell biology, immunology, genetics, and pathogenic mechanisms, and the changes that occur in disease states
2 **ME 1.3** Apply knowledge of gross and microscopic appearances of tissues in disease states
3 **ME 1.3 Apply knowledge of the principles of and indications for ancillary diagnostic techniques**
4 **ME 1.6** Seek assistance in situations that are complex or new
5 **ME 1.6 Convey diagnostic uncertainty and recommend additional studies when needed**
6 **ME 2.2** Select and/or interpret investigations
7 **ME 2.2** Assess specimen adequacy for ancillary testing
8 **ME 2.2 Select ancillary techniques judiciously in a resource-effective and ethical manner**
9 **ME 3.4** Recognize patterns of familial cancer syndromes, using or suggesting appropriate

ancillary tests to guide genetic counseling

10 **COM 4.1 Integrate information from ancillary studies and other sources into the pathology report**

11 **HA 1.2** Respond to individual patient diagnostic needs and issues as part of patient care

12 **L 1.1 Apply quality management principles such as the use of controls (e.g., internal, external, reagent and tissue) to ensure validity of study findings and apply this understanding to troubleshooting test failure**

13 **L 2.1** Use clinical judgment to minimize wasteful practices

14 **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps

Anatomical Pathology: Core EPA #10

Managing cytopathology specimens within the preparation laboratory

Key Features:

- This EPA focuses on the pre-analytic handling of cytopathology specimens.
- This includes advising other physicians on optimal management of specimens, accepting or rejecting specimens based on specimen and requisition adequacy criteria, preparing gynecological and non-gynecological specimens, and applying principles of quality assurance to the processed specimen (e.g., stain quality, appropriate specimen labelling).
- This may include rapid on-site assessment and FNA samples performed by a pathologist.
- The observation of this EPA is divided into two parts: specimen adequacy and processing; advising health care professionals.
- The observation of advising health care professionals may be a simulated scenario.

Assessment Plan:

Part A: Specimen adequacy and processing
Direct observation and/or case discussion by technologist or pathologist

Use form 1. Form collects information on:

- Specimen type: gynecological; fine-needle aspiration (FNA); fluids (pleural, peritoneal, urine, CSF, etc.); endoscopic ultrasound (EUS); endobronchial ultrasound (EBUS); other specimen type
- Component (select all that apply): adequacy; preparation; assessment of finished product

Collect 5 observations of achievement

- A variety of specimen types (including gynecological and non-gynecological)
- At least 1 of each of the 3 components (adequacy, preparation, assessment of finished product)
- At least 2 different observers

Part B: Advising health care professionals
Direct observation by pathologist

Use form 1. Form collects information on:

- Scenario: cervical specimen; other exfoliative specimen; FNA cytology; fluids; possible infectious etiology
- Simulation: yes; no

Collect 3 observations of achievement

- A variety of scenarios

CanMEDS Milestones:

Part A: Specimen Adequacy and Processing

1 **ME 2.1 Determine if cytopathology specimens and requisitions meet adequacy criteria**
2 **ME 2.1 Describe reasons for specimen rejection and the process of rejection documentation**
3 **ME 5.1 Resolve issues related to specimen misidentification**
4 **ME 2.1 Identify and explore clinical issues to be addressed in the pre-analytical handling of a cytology case**
5 **ME 1.3 Apply knowledge of the principles of and indications for ancillary diagnostic techniques in cytopathology**
6 **ME 3.4 Prepare gynecological and non-gynecological cytopathology specimens, including staining, cover-slipping, triaging and storage**
7 **ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite and autopsy suite to minimize occupational risk**
8 **COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions
9 **L 2.1** Use clinical judgment to minimize wasteful practices
10 **L 1.1** Participate in quality control, quality assurance and quality improvement initiatives

Part B: Advising health care professionals

1 **ME 2.2 Ascertain the clinical scenario and the information a clinical team requires from a request for cytopathology testing**
2 **ME 1.3 Apply knowledge of the principles of and indications for ancillary diagnostic techniques in cytopathology**
3 **COL 1.3 Provide advice to clinical colleagues regarding specimen procurement and handling**
4 **COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions**

Anatomical Pathology: Core EPA #11

Assessing and reporting cytopathology specimens

Key Features:

- This EPA focuses on providing a complete cytopathological interpretation including recommendations, as appropriate.
- This includes examining cytology slides, determining specimen adequacy for assessment, initiating and interpreting additional investigations (typically immunohistochemical and histochemical stains) and integrating all case features (including history) to arrive at an accurate interpretation.
- This EPA includes adherence to accepted reporting classification schema (e.g., Bethesda System for Reporting Cervical Cytology) as appropriate, and adhering to local procedures regarding turnaround time and critical values in cytopathology.

Assessment Plan:

Direct and indirect (i.e., case discussion and review of cases) observation by pathologist

Use form 1. Form collects information on:

- Specimen type: pap smear; fine-needle aspiration (FNA); fluid (pleural, peritoneal, urine, CSF, etc.); endoscopic ultrasound (EUS); endobronchial ultrasound (EBUS)

Collect at least 30 observations of achievement

- At least 10 pap smears
- At least 5 fluids
- At least 5 samples from FNA, EUS or EBUS
- At least 3 different observers

CanMEDS Milestones:

1	**ME 1.3** Apply knowledge of the appearance of normal cells in cytologic preparations
2	**ME 1.3** Apply knowledge of cytological appearance of cells in disease states
3	**ME 1.3 Apply knowledge of the principles of and indications for ancillary diagnostic techniques**
4	**ME 2.1 Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case**
5	**ME 2.2 Assess specimen adequacy in surgical and cytopathology specimens**
6	**ME 2.2** Describe common pitfalls in diagnosis of cytopathological specimens
7	**ME 2.2 Identify and interpret epithelial cell abnormalities of squamous and glandular cells**
8	**ME 4.1** Determine the need and timing of referral to another specialist and/or second opinion
9	**COM 4.1 Prepare clear, concise, comprehensive, and timely written reports for cytopathology consultations**
10	**COM 4.1 Use standardized terminology for reporting results, as relevant**
11	**COM 4.1 Provide educational notes and recommendations when needed in the report**
12	**COM 4.1** Use standardized non-diagnostic (e.g., cyst contents) and diagnostic (e.g., unsatisfactory/ benign/ atypical/ suspicious/ malignant) general categories for reporting results (non-Gyne)
13	**COM 4.1** Provide descriptive diagnoses that will clearly communicate cellular findings for

those anatomic sites where there is no standardized terminology (FNA)

14 **COM 4.1 Convey critical values or unexpected results in a timely manner**

15 **L 2.1** Use clinical judgment to minimize wasteful practices

16 **S 1.2** Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance

17 **S 3.4** Integrate best evidence and clinical expertise into decision-making

Anatomical Pathology: Core EPA #12

Conducting intraoperative assessments

Key Features:

- This EPA focuses on the elements of an intraoperative consultation, from specimen handling to clear and effective communication of results to the clinical team.
- This includes gathering the clinical history, handling and triaging the tissue, working effectively with all members of the clinical team (surgeon, technologists, staff pathologist), analyzing the various preparations (touch-preparation, frozen section, etc.), providing a clinically relevant interpretation, and conveying the results to the clinical team.
- Examples of requests relevant to this EPA include intraoperative consultations for tissue adequacy, diagnosis, margins, and lymphoma protocol.

Assessment Plan:

Direct or indirect observation by pathologist or TTP pathology trainee

Use form 1. Form collects information on:

- Observation: direct; indirect
- Organ system: breast; bone & soft tissue; skin; gynecology; gastrointestinal; genitourinary; endocrine; head & neck; lymph nodes & spleen; neuropathology; thoracic
- Type of preparation: frozen section; other

Collect 15 observations of achievement

- At least 8 direct observations
- A variety of organ systems

CanMEDS Milestones:

1 **ME 1.3** Apply knowledge of indications, contraindications and limitations of frozen sections
2 **COL 1.2** Discuss indications for appropriate use of intra-operative and urgent consultations
3 **ME 2.2** Obtain a relevant clinical history
4 **ME 1.3** Apply knowledge about most appropriate method of intraoperative assessment (gross examination only vs frozen sections vs cytologic examination)
5 **ME 2.2 Assess specimen adequacy in surgical and cytopathology specimens**
6 **ME 3.4 Prepare frozen sections, including imprint cytology specimens when relevant and review for diagnosis**
7 **COL 1.2 Work effectively with laboratory technologists and pathology assistants, directing their assistance**
8 **ME 1.3** Apply knowledge of the appearance of normal cells in cytologic preparations
9 **ME 1.3** Apply knowledge of gross and microscopic appearances of tissues in disease states
10 **ME 1.3 Apply knowledge of cytological appearance of cells in disease states**
11 **ME 1.3** Apply knowledge of the principles of and indications for ancillary diagnostic techniques
12 **ME 2.2** Formulate a differential diagnosis based on the pathological examination
13 **ME 2.2** Establish a final diagnosis that takes into account clinical correlations
14 **ME 3.4 Establish and implement a plan for post-procedure handling of tissue**
15 **COL 1.2 Interact effectively with surgeons during intraoperative consultations**

16 COL 1.2 Convey diagnostic uncertainty and discuss deferral of diagnosis when needed
17 COL 1.3 Convey information from the pathology assessment to clinicians in a manner that enhances patient management
18 ME 5.2 Apply safe practices in the laboratory, intraoperative consultation suite, and autopsy suite to minimize occupational risk

Anatomical Pathology: Core EPA #13

Teaching health care professionals and colleagues

Key Features:

- This EPA focuses on the skills of critical appraisal as well as presentation and teaching skills.

Assessment Plan:

Direct observation by pathologist

Use form 1. Form collects information on:

- Type of activity: journal club; grand rounds; academic halfday; other didactic sessions

Collect 2 observations of achievement

CanMEDS Milestones:

1 **S 2.4** Identify the learning needs and desired learning outcomes of others
2 **S 2.4 Develop learning objectives for a teaching activity**
3 **S 3.3 Critically evaluate the integrity, reliability and applicability of health-related research and literature**
4 **S 3.4 Integrate best evidence and clinical expertise**
5 **S 2.4 Present the information in an organized manner to facilitate understanding**
6 **S 2.4 Use audiovisual aids effectively**
7 **S 2.4 Provide adequate time for questions and discussion**

Anatomical Pathology: Core EPA #14

Participating in quality management activities

Key Features:

- This EPA focuses on the role of the anatomic pathologist as a participant and leader of quality management in the laboratory.
- The observation of this EPA is divided into two parts: Part A, completion of a laboratory management or quality improvement project; and Part B, participation in quality management, which includes responding to individual quality management events and participating in systematic quality management activities.
- Individual quality management events include any finding or occurrence that requires action to maintain quality of care or safety. Examples include: critical values; breaches in laboratory safety; failed immunohistochemical stains
- Examples of systematic quality assurance activities include: cytology-histology correlation rounds; case consensus conferences; process improvement initiatives; validating new tests/methodologies; quality committee

Assessment Plan:

Part A: Laboratory management or quality improvement project
Review of completed project by supervisor

Use form 4

Collect 1 observation of achievement

Part B: Quality management participation
Direct observation or case discussion/presentation) by supervisor

Use form 1. Form collects information on:

- Clinical area: surgical pathology; autopsy; cytopathology; molecular pathology; other
- Quality management activity: responding to a finding or occurrence; participating in a systematic quality assurance activity

Collect 3 observations of achievement

- At least 1 response to a finding or occurrence that requires action to maintain quality of care or safety
- At least 1 observation of participating in a systematic quality assurance activity

CanMEDS Milestones:

Part B: Quality management participation

1 **ME 1.3** Define a critical result (critical diagnosis), and describe how it is documented and handled

2 **ME 2.1 Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case**

3 **ME 5.1** Recognize near-misses in real time and respond to correct them
4 **COM 3.2 Communicate and document issues arising from a breach in quality or safety of laboratory practice**
5 **COM 4.1** Convey critical values or unexpected results in a timely manner
6 **COL 1.1** Anticipate, identify, and respond to patient safety issues related to the function of a lab or clinical team
7 **COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions
8 **L 1.1 Describe the metrics and measurement systems (e.g., statistical benchmarking and dashboard construction) used by the laboratory to track lab activities and current practice patterns**
9 **L 1.4** Identify variation/gaps between actual and targeted performance using thresholds
10 **L 1.1** Understand the various process improvement methodologies (PDSA, six-sigma, DMAIC, Lean) and their strengths and weaknesses
11 **L 1.3** Manage a suspected specimen mix-up
12 **L 1.3** Resolve and analyze diagnostic discrepancies
13 **L 1.1 Identify problems, formulate and carry out a plan of action, and reassess the results in the context of quality improvement**
14 **L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations
15 **L 1.1** Participate in quality control, quality assurance and quality improvement initiatives
16 **S 3.4 Apply evidence-based medicine and best practice guidelines**
17 **S 3.4** Identify new evidence appropriate to their scope of professional practice through quality-appraised evidence-alerting services
18 **P 2.1** Demonstrate a commitment to maintaining and enhancing competence
19 **P 2.2** Demonstrate a commitment to patient safety and quality improvement initiatives within their own practice environment

Anatomical Pathology: Core EPA #15

Conducting scholarly work

Key Features:

- This EPA includes active participation in more than one key aspect of performing scholarly work: identification of a question for investigation, literature review, data gathering, data analysis, and reflective critique.
- It must include presentation or dissemination of the scholarly work locally or nationally.
- This may include scholarly research, quality assurance, or educational projects.
- The assessment of this EPA is based on the submission of a completed scholarly project and may also include observation of the presentation of the scholarly work.

Assessment Plan:

Direct and/or indirect observation by supervisor

Use form 1

Collect 1 observation of achievement

CanMEDS Milestones:

1 **L 4.1 Organize work to manage clinical, scholarly and other responsibilities**
2 **S 4.4 Identify, consult and collaborate with content experts and others in the conduct of scholarly work**
3 **S 4.4 Generate focused questions for scholarly investigation**
4 **S 3.3 Critically evaluate the integrity, reliability, and applicability of health-related research and literature**
5 **S 4.5** Summarize the findings of a literature review
6 **S 4.4** Select appropriate methods of addressing a given scholarly question
7 **S 4.2** Identify ethical principles in research
8 **S 4.4 Collect data for a scholarly project**
9 **S 4.4 Perform data analysis**
10 **S 4.4 Integrate existing literature and findings of data collection**
11 **S 4.4 Identify areas for further investigation**

Anatomical Pathology: Core EPA #16

Maintaining personal learning and career plans

Key Features:

- This EPA focuses on the update of the trainee's personal learning plan to reflect their progression in their training/career.
- This EPA includes maintaining an accurate logbook and portfolio.

Assessment Plan:

Maintenance and regular review of a logbook, portfolio and learning/career plan by supervisor or academic advisor with validation by the program director

Use form 4

Collect at least 3 observations of achievement

CanMEDS Milestones:

1 **L 4.1** Set priorities and manage time to integrate practice and personal life
2 **L 4.2** Examine personal interests and seek career mentorship and counselling
3 **L 4.2** Reconcile expectations for practice with job opportunities and workforce needs
4 **L 4.3** Improve personal practice by evaluating a problem, setting priorities, executing a plan, and analyzing the results
5 **S 1.1** Create a learning plan in collaboration with a designated supervisor identifying learning needs related to Anatomical Pathology and career goals
6 **S 1.2** Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources

Anatomical Pathology: Core EPA #17

Participating in direct patient care activities that highlight clinicopathological correlation

Key Features:

- This EPA focuses on the key role of pathology expertise in patient care.
- This includes working with patients and clinicians to understand the clinical question and identifying how pathology investigation can further the diagnostic and/or therapeutic management plan.
- This may include advising physicians, at the point of care, on approaches to specimen procurement and handling, and on test selection and sequencing, and conveying the results of pathology investigations at the bedside as well as in team meetings such as tumour boards.
- This EPA will be observed in clinical settings such as outpatient clinics, the OR, genetics counselling sessions, communicating autopsy findings to a patient's family or family physician, cancer clinics, endoscopy clinics, and/or colposcopy clinics, and in clinical–pathological conferences (CPC).
- The observation of this EPA is divided into two parts: clinical settings; CPC conferences.

Assessment Plan:

Part A: Clinical setting
Direct observation and/or case discussion by supervisor, this may include clinicians, pathologists, or senior trainees (TTP residents, fellows) in clinical or pathology disciplines

Use form 1. Form collects information on:

- Setting: autopsy findings communication; cancer clinic; colposcopy clinic; endoscopy clinic; dermatology clinic; genetics counselling; other (write in)

Collect 3 observations of achievement

- No more than one autopsy findings communication

Part B: CPC conferences
Direct observation by supervisor, with input from other CPC conference attendees

Use form 1. Form collects information on:

- Organ system: breast; bone & soft tissue; skin; endocrine; gynecology; gastrointestinal; genitourinary; head & neck; lymph nodes & spleen; neuropathology; thoracic

Collect 3 observations of achievement

- At least 3 different organ systems

CanMEDS Milestones:

Part A: Clinical setting

1 **ME 1.3** Apply a broad base and depth of knowledge in the clinical and biomedical sciences to perform a pathology consultation
2 **ME 2.2 Gather and synthesize patient information to establish the clinical question**
3 **ME 2.2** Develop a differential diagnosis
4 **ME 2.2 Select and recommend pathology investigations, including molecular pathology**
5 **COM 3.1 Convey information to patients and families about pathology tests results clearly and compassionately**
6 **ME 3.4** Recognize patterns of familial cancer syndromes, using or suggesting appropriate ancillary tests to guide genetic counselling
7 **COL 1.1** Establish positive relationships with other members of the health care team
8 **COL 1.3 Provide advice to clinical colleagues regarding specimen procurement and handling**
9 **COL 1.3 Convey information from the pathology assessment to clinicians in a manner that enhances patient management**
10 **COL 1.3 Support clinical colleagues in the development and implementation of a management plan, as appropriate**
11 **HA 1.1 Respond to individual patient diagnostic needs and issues as part of patient care**
12 **ME 1.6 Demonstrate insight into their own limits of expertise**

Part B: CPC conferences

1 **ME 1.4 Synthesize cases for discussion at multidisciplinary rounds**
2 **ME 2.2** Apply tumor staging thresholds and other important prognostic parameters in synoptic reporting in order to position patients in treatment algorithms
3 **COL 1.3 Convey information from the pathology assessment to clinicians in a manner that enhances patient management**
4 **S 3.4 Integrate best evidence and clinical expertise into decision-making**
5 **COL 1.3 Support clinical colleagues in the development and implementation of a management plan, as appropriate**
6 **HA 1.1 Respond to individual patient diagnostic needs and issues as part of patient care**
7 **P 1.1 Exhibit appropriate professional behaviours**
8 **ME 1.6 Demonstrate insight into their own limits of expertise**

Anatomical Pathology: Transition to Practice EPA #1

Managing the daily workload of an anatomical pathologist including surgical pathology, intraoperative consultations, cytopathology and autopsy

Key Features:

- This EPA focuses on managing the workload of an anatomical pathologist: preparing cases for sign out, performing autopsy and intraoperative consultation, teaching junior residents and medical students, preparing, presenting and leading multidisciplinary activities.
- This includes working effectively with clinicians, laboratory staff, interprofessional staff, and administrators, and communication with patients.
- At this stage, the resident will prepare pathology reports that are ready for verification by staff, with no or minimal modification.
- This EPA includes attaining a certain concordance with peer review, complying with institutional turnaround time (TAT), consulting with colleagues appropriately, and adhering to institutional performance indicators.
- The observation of this EPA is based on a day's work.

Assessment Plan:

Direct and indirect observation of a day's work by pathologist, with input from other health care professionals and junior trainees

Use Form 1

Collect 10 observations of achievement

- At least different 5 observers

Relevant Milestones:

1 **ME 1.5 Set priorities, triage and manage the workload within accepted turnaround times**
2 **L 4.2** Describe the principles of workload measurement within the laboratory
3 **ME 1.5 Carry out professional duties in the face of multiple, competing demands**
4 **ME 1.6 Demonstrate insight into their own limits of expertise**
5 **COM 3.2** Communicate and document issues arising from a breach in quality or safety of laboratory practice
6 **COM 4.1 Prepare clear, concise, comprehensive and timely written reports for surgical pathology, cytopathology, and autopsy consultations**
7 **COL 1.3 Convey information from the pathology assessment to clinicians in a manner that enhance patient management**
8 **L 3.1** Demonstrate knowledge of the principles of laboratory management, including resource allocation and collaboration with technical managers, and hospital and laboratory administration
9 **S 3.4 Integrate best evidence and clinical expertise into decision-making**
10 **L 1.1** Demonstrate an awareness of current practice guidelines
11 **P 1.1 Exhibit appropriate professional behaviours**
12 **P 3.1** Describe the relevant codes, policies, standards, and laws governing physicians and the profession including standard-setting and disciplinary and credentialing procedures
13 **P 4.3 Provide mentorship to residents and colleagues**

Anatomical Pathology: Transition to Practice EPA #2

Supervising, teaching and assessing junior learners

Key Features:

- This EPA focuses on the informal teaching that occurs as part of usual laboratory activities, and includes teaching, providing support and feedback, and ensuring quality laboratory practices and reports.
- This EPA may be observed in daily laboratory activities such as grossing, performing an autopsy, intra-operative consultation or case sign-out.

Assessment Plan:

Direct and/or indirect observation by supervisor, with input from junior learners

Use Form 1.

Collect 4 observations of achievement

Relevant Milestones:

1 **S 2.1** Recognize the influence of role-modelling and the impact of the formal, informal, and hidden curriculum on learners
2 **S 2.2 Ensure a safe learning environment for all members of the team**
3 **S 2.3 Supervise learners to ensure they work within their limits, seeking guidance and supervision when needed**
4 **S 2.4 Provide teaching and/or other informal learning activities**
5 **S 2.5 Provide feedback to enhance learning and performance**
6 **S 2.6** Assess and evaluate learners, teachers, and programs in an educationally appropriate manner
7 **P 1.1 Intervene when behaviours toward learners undermine a respectful environment**
8 **P 3.3 Participate in the assessment of junior learners**

Anatomical Pathology: Transition to Practice EPA #3

Participating in laboratory management activities, in the role of junior staff

Key Features:

- This EPA focuses on the role of the anatomical pathologist as a participant in and leader of quality management in the laboratory.
- This EPA builds on the knowledge and skills of Core to add increased responsibility for quality management activities at the individual and system level.
- This includes managing critical incidents, such as breaches in laboratory safety or mislabeling of specimens, and leading quality management activities such as
    - Chairing quality assurance rounds, such as cytology-histology correlation, case consensus rounds, or other pathology quality related rounds
    - Leading a process improvement initiative
    - Leading the validation of a new test or methodology
    - Participating as a member of a hospital committee responsible for the oversight of multiple quality assurance activities
    - Participating in laboratory accreditation activities
- The observation of this EPA is divided into two parts: leading quality management activities; and managing a critical incident.
- The critical incident may be real or simulated.

Assessment Plan:

Part A: Leadership in quality management activities
Direct and indirect observation by supervisor

Use Form 1. Form collects information on:

- Activity: [free text]

Collect 1 observation of achievement

Part B: Management of critical incident(s)
Direct observation and/or incident review by supervisor

Use Form 1. Form collects information on:

- Type of critical incident: [free text]
- Nature of critical incident: real; simulation

Collect 1 observation of achievement

Relevant Milestones:

Part A: Leadership in quality management activities

1 **ME 2.1 Identify and explore clinical issues to be addressed in the pre-analytical, analytical and post-analytical handling of a case**

2 **ME 5.1** Identify potential improvement opportunities arising from harmful patient safety incidents and near misses

3 **COM 3.2** Plan and document follow-up to a harmful patient safety incident
4 **HA 2.2** Improve clinical practice by applying a process of continuous quality improvement to disease prevention, health promotion, and health surveillance activities
5 **L 1.1 Apply the science of quality improvement to contribute to improving systems of patient care**
6 **L 1.2 Contribute to a culture that promotes patient safety**
7 **L 1.4 Use health informatics to improve the quality of patient care and optimize patient safety**
8 **L 1.1 Participate in quality control, quality assurance and quality improvement initiatives**
9 **L 3.1 Demonstrate knowledge of the principles of laboratory management, including resource allocation and collaboration with technical managers, and hospital and laboratory administration**
10 **P 2.2 Demonstrate a commitment to patient safety and quality improvement initiatives within their own practice environment**
11 **P 3.1** Fulfil and adhere to the professional and ethical codes, standards of practice, and laws governing practice
12 **P 3.3** Explain the role of intra- and extra-departmental review of diagnostic material

Part B: Management of critical incident(s)

1 **ME 5.1 Recognize and respond to a breach in quality or safety of laboratory practices**
2 **ME 5.1** Resolve issues related to specimen misidentification and diagnostic or other errors
3 **ME 5.1 Take appropriate actions to address a breach in quality or safety**
4 **COM 3.2 Document actions taken to address a breach in quality or safety**

Anatomical Pathology: Transition to Practice EPA #4

Developing and implementing a personal learning plan geared to setting of future practice

Key Features:

- This EPA may include a variety of scenarios. Examples include: a plan to act on the performance gaps identified in another EPA; a plan to prepare for fellowship training; a plan to prepare for practice in a specific setting (i.e., community) and/or a setting requiring distinct skills.
- Achievement of this EPA includes providing a) the rationale for a learning plan, b) self-reflection, c) personal needs assessment, d) time management and e) identification of the methods to achieve the personal learning plan such as literature review, clinical training, conference attendance and/or rounds attendance.

Assessment Plan:

Supervisor review of resident's submission of a personal learning plan

Use Form 1.

Collect one observation of achievement

Relevant Milestones:

1 **ME 1.1** Demonstrate an awareness of what is required to practice safely and effectively in the setting of future practice
2 **S 1.2 Interpret data on personal performance to identify opportunities for learning and improvement**
3 **L 4.2 Examine personal interests and career goals**
4 **S 1.1 Define learning needs related to personal practice and/or career goals**
5 **S 3.1 Generate focused questions that address practice uncertainty and knowledge gaps**
6 **S 1.1 Create a learning plan that is feasible, includes clear deliverables and a plan for monitoring ongoing achievement**
7 **S 1.1 Identify resources required to implement a personal learning plan**
8 **L 4.2** Adjust educational experiences to gain competencies necessary for future practice
9 **P 2.1** Demonstrate a commitment to maintaining and enhancing competence

Anatomical Pathology: Transition to Practice EPA #5

Liaising with clinical services regarding the diagnostic, prognostic and predictive implications of molecular pathology test results

Key Features:

- This focus of this EPA is the role of the anatomical pathologist as a consultant regarding investigation of clinical questions using molecular pathology.
- This includes gathering the needed clinical information about the case, discussing the implications of the molecular test results and, as relevant, making recommendations for further testing and/or patient management.
- This EPA includes direct communication with clinician(s) as well as integration of molecular pathology test results into the pathology report.
- This EPA does not include the interpretation of complex raw data (e.g., next-generation sequencing).
- This EPA may be observed in a case discussion with clinicians, or at tumour boards or other multidisciplinary rounds.

Assessment Plan:

Direct observation and/or case review by staff pathologist

Use Form 1. Form collects information on:

- Organ system: [free text]
- Setting: multidisciplinary rounds; direct communication with clinician; family conference; other
- Test type(s): in situ hybridization; PCR-based testing; cytogenetics; next-generation sequencing

Collect at least 2 observations of achievement

- Various tests and system/sites as defined by competence committee

Relevant Milestones:

1 **ME 2.2 Interpret the diagnostic, prognostic and treatment implications of molecular pathology test results**
2 **COL 1.3 Convey information to clinical colleagues in a manner that enhances patient management**
3 **ME 2.4 Recommend additional genetic/non-genetic testing if required**
4 **L 2.1 Utilize genetic testing resources effectively to balance costs with potential utility of results**
5 **ME 1.3 Apply knowledge of appropriate sample requirements and handling**
6 **ME 1.3** Apply knowledge of turnaround time and its importance for various genetic tests
7 **ME 2.2** Select additional testing based on an appreciation of the diagnostic possibilities, the clinical context and the relevance and capabilities of available technologies
8 **ME 4.1 Coordinate the use of multiple diagnostic investigations to ensure complementarity and efficiency**

9 **COM 4.1 Incorporate the diagnostic, prognostic or predictive implications of molecular pathology tests into an integrated pathology report**

10 **COM 4.1 Include the recommended reporting elements, when integrating molecular results into an anatomic pathologic report**

11 **S 3.4** Integrate best evidence and clinical expertise into decision making

Anatomical Pathology: Transition to Practice #6

Representing Anatomical Pathology in multidisciplinary teams

Key Features:

- This EPA focuses on the role of the anatomical pathologist in contributing expertise to shared clinical decision making for individual patients, as well as to administrative aspects of practice that contribute to improving care delivery within the department, hospital and/or community.
- This EPA includes contributions as the lead pathologist in
    - tumour boards or other multidisciplinary case conferences
    - intradepartmental committees (e.g., workplace safety, quality assurance, university committee or hospital committee)
- This EPA includes advocating for the profession, which may require being an advocate for additional resources, workload management, quality assurance, or promoting the role of the pathologist in patient care.
- The resident is expected to be involved in these activities on a longitudinal basis during the Transition to Practice stage.
- The observation of this EPA is divided into two parts: tumour boards/multidisciplinary case conferences; other committee work.

Assessment Plan:

Part A: Tumour boards / Multidisciplinary case conferences
Multiple observers provide feedback individually, which is then collated to one report

Use Form 3. Form collects information on:

- Observer role: pathologist; clinician; resident; other

Collect feedback from at least 2 observers on two occasions

- At least one pathologist and one clinician for each observation

Part B: Other committee work
Direct observation by senior committee member (ideally committee chair)

Use Form 4

Collect 1 observation of achievement

Relevant Milestones:

Part A: Tumour boards / Multidisciplinary case conferences

1 **ME 1.4 Present and discuss pathology cases effectively at clinical rounds, in the role of a consultant in pathology**
2 **COL 1.1** Establish positive relationships with other members of the health care team
3 **COL 1.3 Convey information from the pathology assessment to clinicians in a manner that enhances patient management**
4 **S 3.4 Integrate best evidence and clinical expertise into decision-making**

5 **COL 1.3 Support clinical colleagues in the development and implementation of a management plan, as appropriate**
6 **COL 2.2 Achieve consensus when there are differences in recommendations provided by other health care professionals**
7 **ME 1.6 Convey diagnostic uncertainty and recommend additional studies when needed**
8 **P 1.1 Exhibit appropriate professional behaviours**

Part B: Other committee work

1 **P 2.1** Demonstrate a commitment to active participation in the activities of the profession
2 **ME 1.5** Carry out professional duties in the face of multiple, competing demands
3 **ME 1.6** Demonstrate insight into their own limits of expertise
4 **L 1.1** Apply the science of quality improvement to contribute to improving systems of patient care
5 **L 3.1** Demonstrate knowledge of the principles of laboratory management, including resource allocation and collaboration with technical managers, and hospital and laboratory administration
6 **L 3.1** Demonstrate leadership skills to enhance health care
7 **L 4.1** Set priorities and manage time to integrate practice and personal life
8 **S 3.4** Integrate best evidence and clinical expertise into decision-making
9 **COL 1.1** Receive and respond appropriately to input from others
10 **COL 1.3** Work effectively with physicians and other colleagues
11 **P 1.1** Exhibit appropriate professional behaviors