

Diagnostic and Molecular Pathology Residency Program

CANMEDS ROLES: LEARNING OPPORTUNITIES

This document provides some of the recommended learning opportunities for general CanMEDS roles, excluding the Medical Expert role, i.e.

- Communicator (includes Communication Skills)
- Scholar (includes Teaching Skills, Biostatistics and Critical Appraisal)
- Leader (includes Laboratory Management and Quality Assurance)
- Collaborator
- Professional (includes Bioethics)
- Health Advocate

Ref: [Royal College Anatomical Pathology Competencies](#)

COMMUNICATOR

LEARNING OPPORTUNITIES

- preparation of surgical and autopsy consultation reports
- observation of pathologists and more senior residents at rounds, conferences, and local and national meetings
- observation of forensic pathologists giving evidence in court
- summarization of clinical chart prior to autopsy
- review of clinical charts in complex surgical pathology cases
- presentations by residents at Academic Half Day, intradepartmental rounds and Wednesday Noon Rounds
- dictation of consultation letters to referring physicians by senior residents
- cooperative learning with other laboratory and clerical staff
- Academic half day:

September 11, 2019	Introduction to Cytology	Learn how to describe cytology smears using proper terminology "CAME" Create a cytology report for 2 grey categories in thyroid FNAB
November 6, 2019	Esophagitis and Barrett's Esophagus	Use appropriate terminology when generating a report on a patient with biopsies from the esophagus and GE junction
	Appendix tumours	Formulate a pathological report that includes appropriate terminology and information in order to establish prognosis and guide best management of these patients
December 4, 2019	QA Case Scenarios	What forms are used in our Department when we face discrepancies or are asked to review cases
February 19, 2020	Bioethics – Discussion of Cases, Part 1 and Part 2	Develop an approach to ethical issues Apply pathology bioethics to real life scenarios Develop an awareness of bioethical issues

April 29, 2020	Endometrium	Review the current updates in endometrial cancer staging and reporting Recognize the current use of biomarkers in endometrial cancer staging
May 6, 2020	Ovary – Sex Cord/Stromal/Germ Cell	Develop an approach to gross description & exam
May 20, 2020	Ovarian Epithelial Tumours, Part 1 – Mucinous Neoplasia	Verbally present a summary of ovarian epithelial neoplasms Use up to date terminology for pseudomyxoma peritonei and related entities
June 17, 2020	Parathyroid pathology, Thyroid pathology, Salivary gland pathology	Adequately report necessary information to guide surgeons at the time of intraoperative assessment
October 21, 2020	Invasive carcinoma (usual type; synoptic reporting issues)	Analyze a breast cancer synoptic report and identify important pathological features for reporting
January 13, 2021	Hodgkin Lymphomas and T/NK Cell Lymphomas	Identify problems encountered in making a pathological diagnosis of NK/T-cell lymphoma, and the need for clinical information for subtyping
March 3, 2021	Perinatal Autopsy	List expectations from parents/clinicians related to the performance of a stillbirth autopsy
November 24, 2021	Presentation techniques	Develop a structure for case presentations in a pathology context Demonstrate techniques to facilitate discussion and participant questions Evaluate and critique example case presentations Engage residents in learning how best to ask and answer questions in rounds Discuss techniques for describing findings in slides and presentations

SCHOLAR

LEARNING OPPORTUNITIES

- teaching of first and second year medical students in Pathology Small Group Discussions
- presentations at Pathology Academic Half Day and intradepartmental rounds
- presentations at Pathology and Laboratory Medicine Research Day
- informal teaching of medical students and junior residents in daily activities
- use of web-based teaching and pathology review programs
- training sessions with Department of Pathology & Laboratory Medicine in use of Adobe Photoshop for image manipulation
- Journal Clubs – residents' monthly Pathology Journal Clubs
- attendance at Pathology and Laboratory Medicine Grand Rounds and Robert Zhong Research seminars
- Academic half day:

September 11, 2019	Introduction to Cytology	Evaluate presented evidence regarding HPV testing to form an opinion regarding implementation
February 22, 2023	Research Techniques	Describe available resources and tools available for pathology research and innovation, Forum for discussion on research challenges Introduce the idea of a collaborative project

LEADER

LEARNING OPPORTUNITIES

- lectures in Pathology Academic Half Day on laboratory budgets, laboratory safety, regionalization and rationalization, hospital organization, human resource issues, and laboratory information systems
- supervision of junior residents, off-service trainees, and medical students by senior resident
- senior resident has the responsibility for organizing daily work and on-call schedules, subspecialty rounds and journal club schedules
- senior resident may be required to resolve differences between residents
- use of laboratory information systems in daily work
- performance of computer database searches for cases and presentations
- involvement in quality assurance such as Quality Management Program – Laboratory Services (QMPLS) surveys in cytopathology
- participate in the Quality Assurance/Continuous Quality Improvement (QA/CQI) departmental committee
- participate in internal reviews of surgical and autopsy pathology cases in the department
- Academic half day:

December 4, 2019	QA	Gain an understanding of the role of the PIQM committee Explore retrospective and prospective techniques used in Pathology QA
	QA Case Scenarios	Gain an understanding of common quality-type issues in pathology
February 19, 2020	Bioethics – Discussion of Cases, Part 1 and Part 2	Develop an approach to ethical issues Apply pathology bioethics to real life scenarios Develop an awareness of bioethical issues
October 14, 2020	Breast grossing protocols and issues	Discuss triaging of breast specimens for specimen radiographs
Sept 15, 2021	Cytopathology laboratory accreditation	Discuss preparatory activities for accreditation Discuss examples of pre-analytical, analytical, post-analytical and quality assurance requirements Describe accreditation day activities Discuss follow up of requirement non-conformance
	Cytopathology laboratory management	Discuss what is Quality Management? Explain important quality measures we take at LHSC Cytology Laboratory focusing on pre-analytic, analytic (Interpretive) and post-analytic Phases of Test Cycle Address commonly used tools we can use for QM Demonstrate importance of undertaking ongoing Quality Improvement measures in the Laboratory to Prevent & Reduce Lab Errors
September 22, 2021	Fine Needle Aspiration Biopsy	Problem solve common FNAB adequacy

		issues
	Rapid On-Site Evaluation in Cytopathology	Problem solve common ROSE adequacy issues
September 29, 2021	Ancillary testing in Cytopathology	Describe the challenges involved in ICC validation and in the procurement of appropriate positive controls
January 26, 2022	Firearms deaths / Infection-related deaths	Describe the autopsy procedures required to assess for infectious disease Explain the safety/infection control procedures required when performing autopsy with suspected infectious disease
February 9, 2022	Ethical Practice & Wellness - Part 1: Intro & Basics, Part 2: Moral Stress, Part 3: Resource Allocation	Apply an ethical framework to a pathology problem Reflect on moral injury & distress examples and how to use self-care to address these Develop an approach to resource allocation for a laboratory issue
March 2, 2022	Molecular Oncology NGS testing at LHSC	Understand the Molecular oncology NGS pipeline at LHSC

COLLABORATOR

LEARNING OPPORTUNITIES

- Consultation with other physicians and health care professionals
- Participation in interdisciplinary rounds
- Provision, while on-call, of advice on the procurement and handling of histological and cytological specimens and appropriate investigations
- Academic half day:

October 16, 2019	Duodenitis and Celiac Disease	Reflect on the importance of clinical history when considering possible causes of duodenal intraepithelial lymphocytosis
November 6, 2019	Appendix tumours	Appreciate the management implications of the various diagnostic entities
February 5, 2020	Medicolegal death investigation in Ontario	Explain the structure and oversight of the Ontario Coroners' System Provide criteria requiring death notification to a coroner Describe the duties and responsibilities of the coroner Explain the process and purpose of a coroner's inquest
	Drug-related deaths	Understand when toxicological analysis is required in death investigation
February 19, 2020	Bioethics – Discussion of Cases, Part 1 and Part 2	Develop an approach to ethical issues Apply pathology bioethics to real life

		scenarios Develop an awareness of bioethical issues
April 29, 2020	Endometrium	Review the current updates in endometrial cancer staging and reporting
May 20, 2020	Ovarian Epithelial Tumours, Part 1 – Mucinous Neoplasia	Outline a plan for assessing whether a mucinous ovarian neoplasm is primary or secondary (group work)
October 14, 2020	Breast surgery	Understand Oncoplastic Surgery and its role in breast conservation as well as its implications for interpreting multiple operative specimens Describe the breast reconstruction options for patients, and the implications of margin positivity and lymph node positivity on breast reconstruction Describe the current standard for close and positive margins for invasive and in situ breast cancer and how these are managed clinically
October 21, 2020	Papillary lesions of the breast	Give management guidelines for the various papillary lesions
September 22, 2021	Fine Needle Aspiration Biopsy	Work with your team to solve FNAB questions Teach your peers important points about FNAB
	Rapid On-Site Evaluation in Cytopathology	Work with your team to solve ROSE questions Teach your peers important points about ROSE
January 26, 2022	Firearms deaths / Infection-related deaths	Recognize medicolegal death scenarios suggesting infectious disease Explain the public health role, including reporting responsibilities, involving autopsy investigation of infectious diseases

PROFESSIONAL

LEARNING OPPORTUNITIES

- [Canadian Association of Pathologists Guidelines](#)
- Academic Half Day teaching
- observation of daily practices within the laboratory
- Academic half day:

February 19, 2020	Bioethics – Discussion of Cases, Part 1 and Part 2	Develop an approach to ethical issues Apply pathology bioethics to real life scenarios
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		Develop an awareness of bioethical issues
April 22, 2020	Vulva	Work within an online environment to present information and ask questions in a professional manner
September 29, 2021	Medicolegal Issues in Cytopathology	Understand how pathologists are affected by medicolegal actions Discuss how to act as a medical expert
February 2, 2022	Expert testimony / Asphyxial deaths	Differentiate a fact witness from an expert witness Explain the role of the expert witness in court proceedings List the steps involved in a court appearance of an expert witness
February 23, 2022	Financial Considerations for Ontario Pathologists	Overview of how Pathology positions in Ontario are funded (LMFFA agreement) & how to get a job Difference between employee and self-employed (incorporation, HOOPP pension vs self-directed investing for retirement, etc.) Compensation for Full-Time Forensic Pathologists in Ontario Insurance (ex. Disability, life insurance) and estate planning (ex. Wills, POAs)
March 30, 2022	Using an EDI lens in all we do and say	Setting the stage for understanding the EDI lens What is happening now in UWO and Schulich regarding issues of EDI, particularly racism and inappropriate system-based EDI practices Starting the conversations about recognizing and addressing racism in our midst Using knowledge in communication across cultures to prevent microaggressions
May 4, 2022	Medicolegal Aspects of Neoplastic Dermatopathology	Analyze common high risk scenarios in dermatopathology Identify common causes of litigious diagnostic errors in dermatopathology Discuss steps that can be taken by the pathologists and clinicians to reduce the risk of malpractice claims

HEALTH ADVOCATE

LEARNING OPPORTUNITIES

- Learning about the Coroner's Act while doing forensic cases
- Participation in research
- Academic Half Day teaching
- Attendance of topics pertaining to public health issues at professional society meetings
- Academic half day:

September 11, 2019	Introduction to Cytology	<p>Formulate an argument regarding the utility of HPV testing</p> <p>Review definitions of Quality, QM, QC, QA, and QI and common tools used for QM</p> <p>Explain how to implement an effective QM system in a cytology lab and outline essential QC and QA activities including performance indicators/monitors useful in GYN and Non GYN cytology.</p> <p>Discuss key measures that we can take to reduce /prevent errors in 3 phases of test cycle</p> <p>Using case studies, discuss the importance of undertaking ongoing QI measures in a cytology lab to prevent and reduce lab errors and to improve patient safety</p> <p>Design performance indicators for thyroid FNAB</p>
September 25, 2019	Salivary Gland Cytology	List 3 causes each for false negative and false positive diagnoses
February 5, 2020	Drug-related deaths	Describe the epidemiology of opioid use, morbidity and mortality in Ontario and Canada
February 12, 2020	Pediatric Deaths	Describe physical signs of child abuse
	Fire Deaths	Appreciate carbon monoxide's role in fire related death
February 19, 2020	Bioethics – Discussion of Cases, Part 1 and Part 2	<p>Define bioethics, autonomy, beneficence, non-maleficence, justice, informed consent</p> <p>Recognize 3 differences between clinical and pathology bioethics</p> <p>Develop an approach to ethical issues</p> <p>Apply pathology bioethics to real life scenarios</p> <p>Develop an awareness of bioethical issues</p>
April 29, 2020	Endometrium	Review the current updates in endometrial cancer staging and reporting
January 13, 2021	Hodgkin Lymphomas and T/NK Cell Lymphomas	Discuss some pitfalls in a biopsy (e.g., extensive granulomatous inflammation, rare Reed-Sternberg cells, unusual location, inadequate biopsy) that could lead to Hodgkin lymphoma being missed or misdiagnosed

January 20, 2021	Reactive lymph node and non-neoplastic bone marrows	List common artifacts seen in bone marrow biopsies, and how to avoid them
September 29, 2021	Ancillary testing in Cytopathology	Know how to use ICC judiciously and appropriately when dealing with cytopathology samples Know when to triage cytopathology samples for flow cytometry and when to triage for ICC

*Reviewed & Updated by AP Residency Program Committee –
May 31, 2017
May 29, 2018
May 2020
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