GOALS AND OBJECTIVES
CARDIOVASCULAR PATHOLOGY

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

MEDICAL EXPERT/CLINICAL DECISION-MAKER

GENERAL REQUIREMENTS

- Demonstrate diagnostic skills for accurate pathological diagnosis of cardiovascular and peripheral vascular disease.
- Access and apply relevant information to clinical practice.
- Demonstrate effective consultation services with respect to patient care, education and legal opinions.

SPECIFIC REQUIREMENTS

- Demonstrate knowledge of normal anatomy, physiology and biochemistry of various cardiovascular organs including the heart and blood vessels.
- Demonstrate understanding of the general principles of embryological development and the most common variations of normal.
- Apply this knowledge to understand the pathoetiology of common congenital heart abnormalities.
- Demonstrate a superior and detailed knowledge of the normal gross and light microscopic appearance of cardiac and vascular tissues.
- Demonstrate knowledge of the normal ultrastructural appearance of cardiac and vascular tissues and how these are altered in various diseases.
- Understand the basic principles of cell biology, immunology and pathogenesis, and the
changes that occur in disease states including cardiomyopathies and myocarditis.

- Understand the principles of tissue processing and the use of different fixatives in the laboratory.

- Demonstrate the ability to perform the cardiovascular component of post-mortem examination, with appropriate full description and diagnosis at gross and microscopic levels. Residents must be able to interpret their findings in light of the clinical history and communicate these in an effective written and oral fashion.

- Demonstrate an in-depth knowledge of the appropriate dissection and sampling of cardiovascular surgical specimens.

- Demonstrate a detailed in-depth knowledge of the microscopic appearances of diseased cardiovascular tissues.

- Understand the principles of immunocytochemical diagnosis in cardiac pathology and its role in the evaluation of cardiomyopathy and neoplasms.

- Understand the principles of nucleic acid-based molecular biology techniques and be familiar with their application to diagnosis in anatomical pathology.

- Understand the principles of ultrastructural diagnosis of neoplasms and inflammatory disease of the heart and great vessels.

- Demonstrate knowledge of the use and indications for special staining and the technical principles underlying these.

- Demonstrate ability to take satisfactory gross and microscopic photographs of tissues.

- Understand the causes and treatment of atherosclerotic and non-atherosclerotic coronary artery disease.

- Understand the etiology, physiology and treatment of valvular heart disease.

- Understand the common causes of various categories of heart disease including pericardial disease, vasculitis, peripheral vascular disease, aneurysms, neoplasms and pulmonary hypertension.

COMMUNICATOR

GENERAL REQUIREMENTS

- Establish effective relationships with consulting physicians and surgeons.

- Listen effectively.
• Discuss appropriate information with the health care team relating to the diagnosis and workup of various surgical and autopsy patient cases.

SPECIFIC REQUIREMENTS

• Assist in the continuing education of physicians and other members of the hospital staff by presenting at pathology, cardiology, and cardiac surgery rounds.

• Act as a consultant to clinical colleagues on the interpretation and relevance of pathological findings, with particular regard to their significance in the management of the patient.

• Understand the information pathology should provide in a given clinical situation and be able to communicate it effectively in an oral and written form.

COLLABORATOR

GENERAL REQUIREMENTS

• Consult effectively with other physicians and health care professionals.

• Contribute effectively to other interdisciplinary team activities.

SPECIFIC REQUIREMENTS

• Utilize experience in clinical medicine and surgery to achieve a sound understanding of the effects of disease and the role of pathology in its management.

• Demonstrate the ability to advise on the appropriateness of obtaining histologic specimens and following examination of these, to advise on further appropriate investigations.

MANAGER

GENERAL REQUIREMENTS

• Utilize resources effectively to balance patient care, learning needs, and outside activities.

• Utilize the resources of the anatomical pathology laboratory to make an accurate and timely diagnosis.

• Allocate finite health care resources wisely.

• Work effectively and efficiently in a health care organization.

• Utilize information technology to optimize patient care, life-long learning and other activities.
SPECIFIC REQUIREMENTS

- Demonstrate knowledge of the methods of quality control in the laboratory as it related to ensuring the appropriate methods to allow the evaluation of cardiac and vascular tissues.

HEALTH ADVOCATE

GENERAL REQUIREMENTS

- Identify the important determinants of cardiovascular health affecting patients.
- Identify factors that may need to be relayed for discussion to the consultants in regards to modifiable risk factors for the patient and their family.

SPECIFIC REQUIREMENTS

- As members of an interdisciplinary team of professionals responsible for individual and population health care, the anatomical pathologist will endeavor to ensure that laboratory practices and test selection are regularly evaluated to determine that they meet these community needs.

SCHOLAR

GENERAL REQUIREMENTS

- Develop, implement and monitor a personal continuing education strategy for continuing medical education in cardiac diseases.
- Critically appraise sources of medical information.
- Facilitate learning of patients, house staff/students and other health professionals by attending and presenting at rounds at various venues.
- Contribute to development of new knowledge.

SPECIFIC REQUIREMENTS

- There should be consideration of completing a short research project or case report dealing with Cardiovascular Pathology during an elective. This might be presented at various national, international or local meetings.
PROFESSIONAL

GENERAL REQUIREMENTS

- Deliver highest quality care with integrity, honesty and compassion.
- Exhibit appropriate personal and interpersonal professional behaviours.
- Practice medicine ethically consistent with obligations of a physician.
- Demonstrate the knowledge, skills and attitudes relating to gender, culture, and ethnicity pertinent to anatomical pathology.

SPECIFIC REQUIREMENTS

- Act as an appropriate role model for students and others.
- Demonstrate a professional attitude to colleagues, as well as to other laboratory staff.
- Have an appreciation of the crucial role of the anatomical pathologist in providing quality patient care. This will include knowledge of individual professional limitations and the necessity of seeking appropriate second opinions.

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