



UNIVERSITY OF CALGARY

OBJECTIVES OF TRAINING AND SPECIALTY TRAINING REQUIREMENTS IN CYTOPATHOLOGY

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Objectives of Training

DEFINITION

Cytopathology is that branch of medicine specializing in diagnosis through the evaluation of the cellular manifestations of disease.

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GENERAL OBJECTIVES

On completion of the educational program, the graduate physician will be competent to function as a Consultant in Cytopathology and oversee a Cytopathology laboratory. This will require acquisition of a sufficient level of skill, knowledge and attitude to serve as a Consultant in a hospital and/or community based laboratory.

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SPECIFIC OBJECTIVES

(Revised into CanMEDS format — May 2000)

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

Medical Expert/Clinical Decision-Maker

General Requirements

- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care
- 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
- Demonstrate knowledge of the normal ultrastructural appearance of tissues
- Understand the basic principles of cell biology, immunology, pathogenesis and the changes that occur in disease states
- Demonstrate knowledge of and skill in methods of specimen acquisition by exfoliative or fine-needle aspiration techniques
- Demonstrate knowledge of and skills in cytologic specimen fixation, processing and staining and the use of different fixatives in the laboratory
- Demonstrate knowledge of and skill in identifying and classifying the cytologic appearance of normal cells sampled by exfoliative or fine-needle aspiration techniques
- Demonstrate knowledge of and skill in identifying and classifying the cytologic appearance of all diseases, both neoplastic and non-neoplastic, sampled by exfoliative or fine-needle aspiration techniques
- Demonstrate knowledge of and skill in the pitfalls of microscopic evaluation of normal and abnormal cells sampled by exfoliative or fine-needle aspiration techniques
- Demonstrate knowledge of and skill in the performance of fine-needle aspiration
- Demonstrate knowledge of the indications, use and limitations of ancillary techniques as an aid to diagnosis. The techniques include histochemistry, immunohistochemistry, electron microscopy, flow cytometry and such molecular techniques as in situ hybridization, filter in situ hybridization, polymerase chain reaction, dot blot hybridization and Southern blot hybridization
- Demonstrate ability to take satisfactory photographs of cytologic material

Communicator

General Requirements

- Establish effective relationships with consulting Physicians and Surgeons, and patients/families
- Obtain and synthesize relevant history from consulting Physicians and Surgeons and patients/families/communities
- Listen effectively
- Discuss appropriate information with the health care team and patients/families

Specific Requirements

- Act as consultants to clinical colleagues on the interpretation and relevance of cytologic findings, with particular regard to their significance in the management of the patient
- Act as a Consultant to other Pathologists in the interpretation of difficult cytologic specimens
- The trainee must demonstrate understanding and awareness of the importance of timeliness, clarity and accuracy in all communications
- Formulate comprehensive and clinically meaningful reports and be able to communicate reports effectively in an oral and written form
- Demonstrate knowledge of the ethical and medico-legal issues regarding the release of confidential patient information
- Understand the principles of presentation of evidence in court

Collaborator

General Requirements

- Consult effectively with other Physicians and health care professionals
- Contribute effectively to multidisciplinary team activities

Specific Requirements

- Must have experience in clinical medicine and surgery sufficient to achieve a sound understanding of the effects of disease and the role of Cytopathology in its management
- The Trainee must know the value of multidisciplinary collaboration in patient management decisions
- Demonstrate the ability to advise on the appropriateness of obtaining cytologic specimens and following examination of these, to advise on further appropriate investigations
- The Trainee must develop knowledge and skill in supporting educational and research endeavors of clinical and laboratory colleagues through individual or group opportunities

Manager

General Requirements

- Utilize resources effectively to balance patient care, learning needs and other activities
- 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 principles of laboratory management and administration and acquire practical experience. Specifically, the Trainee will understand in relation to a Cytopathology laboratory
 - Staffing and personnel management
 - Budgeting
 - Workload measurements
 - Funding structures
 - Quality control, quality assurance and quality improvement
 - Management styles
 - Laboratory safety
 - Optimal laboratory utilization
 - Equipment selection and purchasing
 - Hospital and laboratory organizational structures and functions
 - Relevant legislation and/or regulations governing laboratory practice
 - Demonstrate competence in basic computer skills with emphasis on automated laboratory information systems, data management, electronic communication and search strategies

Health Advocate

General Requirements

- Identify the important determinants of health affecting patients
- Contribute effectively to improved health of patients and communities
- Recognize and respond to those issues where advocacy is appropriate

Specific Requirements

- As members of a multidisciplinary team of professionals responsible for individual and population health care, the trainee will understand the need to ensure that laboratory practices and test selection are regularly evaluated to determine that they meet these community needs
- Reinforce to the public and to the profession the essential contribution of Cytopathology to health
- The Trainee will fully understand the principles of cervical cancer, population screening and know the role of the laboratory in that activity
- The Trainee will be able to recognize and respond to situations where health advocacy and application of health resources are required. This will include the

introduction of improved instrumentation and methodology to augment individual and population health

Scholar

General Requirements

- Develop, implement and monitor a personal continuing education strategy
- Critically appraise sources of medical information
- Facilitate learning of patients, professional colleagues/students and other health professionals
- Contribute to the development of new knowledge

Specific Requirements

The Trainee will be able to:

- Propose a research question relevant to Cytopathology
- Develop a proposal to solve the research question:
 - i. conduct an appropriate literature search based on the research question;
 - ii. identify, consult and collaborate with appropriate content experts to conduct the research;
 - iii. propose a methodological approach to solve the question; and
 - iv. develop a working knowledge of statistical analysis.
- carry out the research outlined in the proposal
- defend and disseminate the results of the research
- identify areas for further research that flow from the results
- develop teaching skills in theoretical and practical Cytopathology in lecture, small group and individual learning formats

Professional

General Requirements

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

Specific Requirements

- Act as an appropriate role model for students and others

- Demonstrate a professional attitude to colleagues, students, other health professionals, and laboratory support staff
- Have an appreciation of the crucial role of the Cytopathologist in providing quality patient care. This will include knowledge of individual professional limitations and the necessity of seeking appropriate second opinions.
- The Trainee will demonstrate professional behaviour in regard to confidentiality, respect for others, conflict of interest, codes of conduct, personal and professional boundaries and informed consent.

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Specialty Training Requirements

1 year (12 months) of approved training. The training period is continuous taken as a post fellowship year following completion of Anatomical or General Pathology training.

Evaluation:

Performance will be evaluated periodically based on the training objectives and will be carried out by a committee comprised of the subspecialty Supervisor and other faculty members. Evaluation will include results of proficiency testing and performance data generated by the laboratory's quality assurance program.

Certification:

Subspecialty certification is contingent on satisfactory completion of training and certification in either Anatomical or General Pathology.

UNIVERSITY OF CALGARY FELLOWSHIP POSITION:

SUPERVISOR: Dr. Máire A. Duggan

Rotations: The Fellow is expected to be present in the department during laboratory working hours: Monday - Friday, 8:00 a.m. to 5:00.p.m. For the first 12 weeks weeks, the Fellow will attend the daily tutorial sessions given by the teaching Cytotechnologist and co-report some cytopathology cases of the day with the sign-out Cytopathologist. The tutorials will cover gynecologic and non-gynecologic cytopathology.

Evaluation: At the end of this period, there is an interim evaluation and if performance is satisfactory, independent sign-out in rotation with the full time Cytotechnologists will be allowed. The evaluation will include a 2-hour exam composed of 2 sections: 6 unknown, previously screened slides and 6 short-answer style essay questions.

Independent sign-out will constitute at least 60% of the fellowship.

If the performance is unsatisfactory, a further 2 months of supervised co-reporting will occur. Performance at the end of that period will be evaluated. If satisfactory, independent sign-out will occur. If unsatisfactory, the training will be terminated.

Interviews with the supervisor to discuss performance will occur at 3, 6, 9 and 12 months. The Fellow will participate in the Laboratories Proficiency Testing Program and the results will be part of the evaluation.

Research: At least 2 months protected time for the completion of a research project is allowed. This can be taken en bloc or spaced at intervals through the year.

Committees: The Fellow is a member of the Cytopathology Quality and Professional Staff Committees.

Conferences: Attendance at all Cytopathology educational conferences, microscope sessions and Gynecologic Oncology rounds are mandatory.

Certification: At the end of 12 months and conditional on satisfactory performance, the candidate will be issued a certificate from the Department of Graduate Medical Education, University of Calgary, affirming that a year of added training has been successfully completed.

Approved by the Anatomic Pathology RTC April, 2002

Prepared by Dr. Máire A. Duggan: April 1, 2002
Reviewed by Dr Máire A. Duggan: May 13, 2010