Objectives of Training in Occupational Medicine

2006

This document applies to those who begin training on or after July 1st, 2007.

(Please see also the “Policies and Procedures.”)

DEFINITION

Occupational Medicine is a medical discipline that emphasizes prevention and deals clinically and administratively with the health needs of both individuals and groups with respect to their working environments and includes the recognition, evaluation, control, management and rehabilitation of occupationally related diseases and injuries.

GOALS

Occupational Medicine aims to:

• Promote and maintain the highest degree of physical, mental and social well being of workers in all occupations;
• Prevent health problems caused by their working conditions;
• Place and maintain workers in occupational environments compatible with their physical and psychological capabilities.

Upon completion of training, a physician is expected to be a competent subspecialist capable of assuming a consultant’s role in Occupational Medicine. The resident must acquire a working knowledge of the theoretical basis of the subspecialty, including its foundations in the basic medical sciences and research.

Residents must demonstrate the knowledge, skills and attitudes relating to gender, culture and ethnicity pertinent to Occupational Medicine. In addition, all residents must demonstrate an ability to incorporate gender, cultural and ethical perspectives in research methodology, data presentation and analysis.

Upon completion of the educational program, the resident will also be able to demonstrate competency in key areas as a Medical Expert, Communicator, Collaborator, Manager, Health Advocate, Scholar, and Professional. Further, the resident will have acquired relevant skills and a broad knowledge in order to handle professionally a wide array of Occupational Medicine applications, as described in the specific objectives. The subspecialist in Occupational Medicine may practice in one or more of several different practice settings, or domains of practice. These domains are broad and diverse; examples include practice in academic, corporate, government and clinical settings.
OCCUPATIONAL MEDICINE COMPETENCIES

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

**Medical Expert/Clinical Decision-Maker**

Occupational Medicine subspecialists possess a defined body of knowledge and skills which are used to collect and interpret data, make appropriate clinical decisions, and carry out diagnostic and therapeutic procedures within the boundaries of their discipline and expertise. Their care is characterized by up-to-date, ethical, and cost-effective clinical practice and effective communication in partnership with patients, other health care providers, employers and the community. The role of Medical Expert is central to the function of subspecialist physicians, and draws on the competencies included in the roles of Communicator, Collaborator, Manager, Health Advocate, Scholar, and Professional.

Occupational medicine subspecialists must be familiar with the work environment and be informed about scientific and technical information relevant to the evaluation of occupational hazards and the reduction in the risks associated with those hazards.

The role of medical expert and clinical decision-maker is applied in a number of different settings. For an individual worker, it may be in the context of the doctor-patient relationship or as a third party/independent medical assessment. The role is also applied in group or population settings when designing, delivering and evaluating programs including prevention, surveillance and return to work.

**General Requirements:**
- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
- Access and apply relevant information to clinical practice including knowledge of preventive practices in an occupational context.
- Demonstrate effective consultation services with respect to patient care, education and legal opinions.
- Demonstrate skills in the identification and evaluation of health hazards in the workplace and in the development, delivery and evaluation of relevant programs for workers.

**Specific Requirements:**
1. Hazard Identification and Control
   - Undertake a walk-through of a workplace to identify key health hazards, safety risks, and job demands.
   - Review the chemical inventory of a workplace and characterize the key health effects, protective measures, and susceptible groups.
   - For a given industry or occupational hazard, identify what statutes and regulations apply, and what actions may be required in order to protect the health and safety of workers.

2. Individual Clinical Assessment
   - Perform a preplacement or periodic clinical assessment to determine an individual’s fitness to work.
 Following a patient’s exposure to a health hazard, undertake a clinical assessment to determine the extent of exposure, individual susceptibility, effect, and future health risk.

Perform a clinical assessment of a patient with an illness or injury to determine his or her work limitations or restrictions.

Provide an opinion on the work-relatedness of a patient’s illness or injury and justification for that opinion.

Provide a competent medicolegal examination and report, and clinical and expert testimony relevant to an Occupational Medicine problem.

3. Rehabilitation & Compensation

- Describe the consequences of a worker’s illness or injury in terms of impairment and disability and recommend an appropriate plan for return to employment.
- Identify other medical, psychological, and social factors influencing a worker’s recovery from an illness or injury and safe return to work.
- Identify when rehabilitative services (physiotherapy, occupational therapy, clinical psychology, functional capacity assessments, work hardening programs) are indicated in the rehabilitation of an ill or injured worker.
- Identify when further environmental assessment, job demands information, clinical investigations, or clinical consultations are indicated for the rehabilitation or compensation of a patient.

4. Epidemiology, Risk Assessment, and Health of Working Populations

- Design, implement and evaluate programs for prevention, surveillance and return to work for groups of workers.
- For a group of workers presenting with a cluster of injuries or illness, undertake an investigation into common exposure and risk factors.
- Identify and manage issues specific to subsets of the workforce, including young workers, women, migrant workers, newly immigrated workers, those with disabilities and chronic diseases (e.g. HIV, Hepatitis B).
- Recognize and investigate potential sentinel health events of occupation – SHE(O)
- Apply epidemiological and statistical principles and techniques to analyze illness or injury data in worker and community populations.
- Effectively assess individual and group perception of health outcomes and exposures to health hazards.
- Analyze critically a body of literature and form a conclusion regarding its relevance to a specific hypothesis.

Communicator

To provide humane, high-quality care, Occupational Medicine subspecialists establish effective relationships with patients, other physicians, and other health professionals. Communication skills are essential for the functioning of a subspecialist, and are necessary for obtaining information from, and conveying information to patients, their families and other relevant parties. Furthermore, these abilities are critical in eliciting patients’ beliefs, concerns, and expectations about their illnesses, and for assessing key factors impacting on patients’ health.

General Requirements:

- Establish therapeutic relationships with patients and groups of workers.
- Obtain and synthesize relevant history from patients/communities/workplaces.
• Listen and communicate effectively.
• Discuss appropriate information in an effective manner with patients, the health care team, workplace parties, and government agencies.

Specific Requirements:
1. Recognize that effective communication can foster worker and employer satisfaction, and adherence as well as influence the manifestations and outcome of a patient's illness.
2. Establish relationships with the patient that are characterized by understanding, trust, respect, empathy and confidentiality.
3. Gather information not only about the worker’s health but also about the worker’s beliefs, concerns and expectations, while considering the influence of factors such as employment, age, gender, ethnic, cultural and socio-economic background, and spiritual values on that illness.
4. Demonstrate skills in conflict resolution and in working with others who present significant communication challenges due to anger or confusion, or an ethno-cultural background different from the physician's own.
5. Deliver information to workplace parties, government agencies, the media and the public that is understandable, sensitive and is in compliance with confidentiality requirements.
6. Report in an accurate, effective, and ethical manner medical and occupational information required by workers’ compensation, insurance carriers, and other third parties.

Collaborator

Occupational Medicine subspecialists work in partnership with others who are appropriately involved in the care of individuals or specific groups of workers. It is therefore essential for subspecialists to be able to collaborate effectively with patients and a multidisciplinary team of expert health professionals and workplace parties for provision of optimal patient care, prevention, education, and research.

General Requirements:
• Consult effectively with other physicians and health care professionals.
• Contribute effectively to other interdisciplinary team activities.
• Work effectively with the workplace parties and government agencies.

Specific Requirements:
1. Identify and describe the role, expertise and limitations of all members of an interdisciplinary team required to optimally achieve a goal related to worker health, a research problem, an educational task, or an administrative responsibility.
2. Collaborate with the members of the interdisciplinary team to develop a care plan for a worker including investigation, treatment and rehabilitation.
3. Participate in an interdisciplinary team, demonstrating the ability to accept, consider and respect the opinions of other team members, while contributing subspecialty-specific expertise him/herself.
4. Identify when specialized skills or techniques of other professionals (e.g. occupational hygienists, ergonomists) are required to assess health hazards present in the workplace.
5. Work effectively as a team member with management, other health professionals, and labour representatives to maximize workplace health, safety, and productivity.

6. Participate in the development of emergency or disaster plans for the workplace and/or the community.


**Manager**

Occupational Medicine subspecialists function as managers when they make everyday practice decisions involving resources, co-workers, tasks, policies, and their personal lives. They do this in the settings of individual patient care, practice organizations, and in the broader context of the health care system, industry and government. Thus, subspecialists require the abilities to prioritize and effectively execute tasks through teamwork with colleagues, and make systematic decisions when allocating finite health care resources. As managers, Occupational Medicine physicians take on positions of leadership within the context of professional organizations and the dynamic Canadian health care system.

**General Requirements:**
- Utilize resources effectively to balance patient care, learning needs, and outside activities.
- Allocate finite health resources wisely.
- Work effectively and efficiently in an occupational health care organization.
- Utilize information technology to optimize patient care, life-long learning and other activities.
- Establish, implement and lead an occupational health and safety team.

**Specific Requirements:**
1. Understand how to function effectively in organizations, ranging from an individual clinical subspecialist practice to organizations at the local, regional and national level.

2. Understand the structure, financing, and operation of the Canadian health system and its facilities, function effectively within it and be capable of playing an active role in its change.


4. Understand how to function effectively in a workplace administrative structure to provide organizational leadership for occupational health and safety.

5. Develop, implement and evaluate programs for the prevention and management of impairment and disability; to monitor populations for indicators of occupational/environmental health effects; for the promotion of employee health; for the delivery of health services to employees; and for the assessment and management of health risks in a worker, workplace, or community.
6. Assess the impact of different occupational health services models on the health of the employee and families, the performance of the organization, and the health service providers.

7. Develop, implement, and evaluate clinical, program delivery, and case management guidelines in Occupational Medicine.

8. Describe the principles of effective selection, retention, promotion, motivation, appraisal, and discipline of employees.

9. Assess and manage information needs in occupational health programs, including data related to health hazards, individual medical files, rehabilitation, compensation, and program evaluation.

**Health Advocate**

Occupational Medicine subspecialists recognize the importance of advocacy activities in responding to the challenges represented by those social, environmental, and biological factors that determine the health of workers and society. They recognize advocacy as an essential and fundamental component of health promotion that occurs at the level of the individual worker/patient, the practice population, and the broader community. Health advocacy is appropriately expressed both by the individual and collective responses of subspecialist physicians in influencing public health and policy.

**General Requirements:**
- Identify the important determinants of health affecting workers/patients.
- Contribute effectively to improved health of workers/patients and communities.
- Recognize and respond to those issues where advocacy is appropriate.

**Specific Requirements:**
1. Demonstrate an understanding of the following:
   a. Determinants of health by identifying workplace hazards as well as the most important nonoccupational determinants of health (i.e., poverty, unemployment, early childhood education, social support systems), being familiar with the underlying research evidence, and applying this understanding to common problems and conditions in the subspecialty.
   
   b. Public policy for health by describing how public policy is developed; identifying current policies that affect health; and citing examples of how policy was changed as a result of actions by physicians.
   
   c. Occupational health and safety and workers’ compensation policy by describing how it is developed; identifying current policies that affect health and how to influence them.
2. Demonstrate an understanding of these concepts as applied to the following three levels:
   a. In the management of individual workers/patients by identifying the patient's status with respect to one or more of the determinants of health adapting the assessment and management accordingly (i.e., the medical history to the patient's social circumstances); and assessing the patient's ability to access various services in the health and social system.

   b. In relation to the workplace or the general population by describing the key issues currently under debate regarding changes in the Canadian health care system, indicating how these changes might affect societal health outcomes and advocating to decrease the burden of illness (at a community or societal level) of a condition or problem relevant to his/her subspecialty through a relevant subspecialty society, community-based advocacy group, other public education bodies, legislative bodies or private organizations.

   c. Describe how health and safety governance influences worker health, research and educational activities at a local, provincial, regional, and national level.

Scholar

Occupational Medicine subspecialists engage in a lifelong pursuit of mastery of their domain of professional expertise. They recognize the need to be continually learning and model this for others. Through their scholarly activities, they contribute to the collection appraisal, and understanding of health care knowledge, and facilitate the education of their students, patients, and others.

General Requirements:
• Develop, implement and monitor a personal continuing education strategy.
• Critically appraise sources of medical information.
• Facilitate learning of patients, residents/students and other health professionals.
• Contribute to development of new knowledge.

Specific Requirements:
1. Clinical:
   a. Identify practice areas for evaluation
   b. Pose a clinical question of a work-related problem;
   c. Recognize and identify gaps in knowledge and expertise around the clinical question;
   d. Formulate a plan to fill the gap:
      i) conduct an appropriate literature search based on the clinical question;
      ii) assimilate and appraise the literature;
      iii) develop a system to store and retrieve relevant literature;
      iv) consult others (physicians and other health professionals) in a collegial manner;
   e. Propose a solution to the clinical question;
   f. Implement the solution in practice. Evaluate the outcome and reassess the solution

2. Research:
   a. Pose a research question (clinical, basic or population health);
   b. 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;
c. Carry out the research outlined in the proposal;
d. Evaluate and disseminate the results of the research;
e. Identify areas for further research that flow from the results.

3. Education:
   a. Demonstrate an understanding of, and the ability to apply, the principles of adult learning, with respect to oneself and others;
   b. Demonstrate an understanding of preferred learning methods in dealing with students, residents, and colleagues;
   c. Demonstrate an understanding of these concepts in relation to the workplace or the general population;
   d. Analyze critically a body of literature and form a conclusion regarding its relevance to a specific hypothesis relevant to Occupational Medicine

Professional

Occupational Medicine subspecialists have a unique societal role as professionals with a distinct body of knowledge, skills, and attitudes dedicated to improving the health and well-being of workers. Specialists are committed to the highest standards of excellence in clinical care and ethical conduct, and to continually perfecting mastery of their discipline.

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.
- Meet obligations and confidentiality requirements in the workplace setting.

Specific Requirements:
1. Discipline - Based Objectives:
   a. Display attitudes commonly accepted as essential to professionalism;
   b. Continually evaluate and advance one's abilities, knowledge and skills and know one's limitations of professional competence;
   c. Report in an accurate, effective, and ethical manner medical and occupational information required by workers’ compensation, insurance carriers, and other third parties;
   d. Understand and protect employee’s legal right to confidentiality of personal medical information.

2. Personal/Professional Boundary Objectives:
   a. Adopt specific strategies to heighten personal and professional awareness and explore and resolve interpersonal difficulties in professional relationships;
   b. Consciously strive to balance personal and professional roles and responsibilities and to demonstrate ways of attempting to resolve conflicts and role strain.

3. Objectives Related to Ethics and Professional Bodies:
   a. Know and understand the professional, legal and ethical codes to which physicians in Occupational Medicine are bound;
b. Recognize, analyse and attempt to resolve clinical practice ethical issues such as truth-telling, consent, confidentiality, conflict of interest, resource allocation, research ethics;
c. Understand and be able to apply relevant legislation that relates to the occupational health system in order to guide one's clinical practice;
d. Recognize, analyse and know how to deal with unprofessional behaviours in clinical practice, taking into account local and provincial regulations.