

Objectives of Training in Dermatology

2009 EDITORIAL REVISIONS 2019 VERSION 1.3

This document applies to those who begin training on or after July 1st, 2009.

NOTES: Throughout this document, references to the patient's family are intended to include all those who are personally significant to the patient and are concerned with his or her care, including, according to the patient's circumstances, family members, partners, caregivers, legal guardians, and substitute decision-makers.

Throughout this document, the term skin is used to refer to the skin, its appendages, and the visible mucous membranes.

DEFINITION

Dermatology is that branch of medicine concerned with the study and clinical management of the skin, both in health and disease.

GOALS

Upon completion of training, a resident is expected to be a competent specialist in Dermatology, capable of assuming a consultant's role in the specialty. The resident must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in science and research, as it applies to medical practice.

These elements of competence are expanded as detailed objectives, for greater clarity, in the following pages.

The detailed objectives describe minimal standards and in no way exclude the necessity for mastery of additional knowledge, skills, or behaviours necessary for the most effective management of patients with skin disorders.

Residents must demonstrate the requisite knowledge, skills, and behaviours for effective patient-centred care and service to a diverse population. In all aspects of specialist practice, the graduate must be able to address ethical issues and issues of gender, sexual orientation, age, culture, beliefs, and ethnicity in a professional manner.

DERMATOLOGY COMPETENCIES

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

Medical Expert

Definition:

As *Medical Experts*, Dermatologists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centred care. *Medical Expert* is the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Dermatologists are able to ...

- 1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical, and patient-centred medical care
 - 1.1. Perform a consultation effectively, including the presentation of well-documented assessments and recommendations in oral, written, and/or electronic form in response to a request from another health care professional
 - 1.2. Demonstrate use of all CanMEDS competencies relevant to their practice
 - 1.3. Identify and appropriately respond to relevant ethical issues arising in patient care
 - 1.4. Demonstrate the ability to prioritize professional duties when faced with multiple patients and problems
 - 1.5. Demonstrate compassionate and patient-centred care
 - 1.6. Recognize and respond to the ethical dimensions in medical decision-making
 - 1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments, as needed

2. Establish and maintain clinical knowledge, skills, and behaviours appropriate to Dermatology

- 2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to Dermatology
 - 2.1.1. A Dermatologist must demonstrate a detailed knowledge and understanding of
 - 2.1.1.1. Basic sciences related to Dermatology (anatomy, biochemistry, cell biology, embryology, genetics, histology, immunology, microbiology, physics, physiology, and diseases pathogens)
 - 2.1.1.2. Clinical skills required to diagnose cutaneous disease (skin, visible mucous membranes, and appendages), including history, physical examination, and pertinent investigative procedures
 - 2.1.1.3. The cutaneous manifestations of systemic diseases in patients of all ages

- 2.1.1.4. Dermatopathology and immunodermatopathology, and relevant electron microscopy
- 2.1.1.5. The formulation of an appropriate differential and provisional diagnosis
- 2.1.1.6. The efficient use of appropriate laboratory investigations
- 2.1.1.7. The development of an appropriate treatment plan taking into account matters such as the patient's age, general health, epidemiology and natural history of the disease, risk versus benefits and cost of investigative procedures, and therapeutic interventions
- 2.1.1.8. Dermatological therapy (percutaneous absorption, the pharmacology and side effects of topical and systemic medications, and the use and complications of electrosurgery, cryotherapy, immunotherapy, phototherapy, ionizing radiation, laser, chemical peels, sclerotherapy and dermatological surgery)
- 2.1.2. The dermatologist must be able to describe or discuss the
 - 2.1.2.1. Clinical features, including presenting signs and symptoms, morphologic features, natural history, and prognosis, for inflammatory, autoimmune, traumatic, vascular, infectious, neoplastic, infiltrative, degenerative and genetic disorders of the skin
 - 2.1.2.2. Embryological development of the skin and how congenital disorders and anomalies arise from this process
 - 2.1.2.3. Histopathology of the skin in health and disease
 - 2.1.2.4. Function and dysfunction of the immune system as it relates to skin disease
 - 2.1.2.5. Anatomic and physiologic basis for the normal skin examination at all ages
 - 2.1.2.6. Basic principles underlying the interpretation of the major clinical tests such as potassium hydroxide (KOH) preparations, scrapings for mites, Tzanck smear, Gram stain, fungal culture, Wood's light examination, patch and photopatch testing, minimal erythema dose testing, and dermoscopy; indications for, potential value of, and limitations and contraindications for those major clinical tests
 - 2.1.2.7. Indications for, mechanisms of action, side effects, interactions, and critical dosages of the topical and systemic agents used in dermatological therapy
 - 2.1.2.8. Basic principles of clinical epidemiology as it relates to skin diseases
 - 2.1.2.9. Therapeutic and toxic effects of irradiation of the skin
 - 2.1.2.10. Normal phases and mechanisms of wound healing
 - 2.1.2.11. Indications and contraindications for current wound dressing technologies for both acute and chronic wounds
 - 2.1.2.12. Anatomy of the skin in terms of location of blood vessels, nerves, muscles/tendons, bony landmarks, lymphatic drainage, sites prone to

- complications, orientation of surgical wounds, and importance of maintaining facial cosmetic units
- 2.1.2.13. Use of surgical instruments, anesthetics, suturing material, hemostatic devices/agents, antiseptic technique, instrument sterilization, and maintenance of a sterile operating field
- 2.1.2.14. Indications and technique for, and possible complications of, skin biopsy, curettage, cryosurgery, electrosurgery, primary and secondary wound closure, flaps, grafts, and Mohs micrographic surgery
- 2.1.2.15. Indications, limitations/expectations, and complications of cosmetic dermatological procedures including lasers, dermabrasion, chemical peels, liposuction, soft tissue augmentation, hair replacement, sclerotherapy and use of neurotoxins
- 2.2. Describe the CanMEDS framework of competencies relevant to Dermatology
- 2.3. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up to date and enhance professional competence
- 2.4. Integrate the available best evidence and best practices to enhance the quality of care and patient safety in their practice

3. Perform a complete and appropriate assessment of a patient

- 3.1. Identify and effectively explore issues to be addressed in a patient encounter, including the patient's context and preferences
- 3.2. Elicit a history that is relevant, clear, concise, and accurate to context and preferences for the purposes of diagnosis, management, health promotion, and disease prevention
- 3.3. Perform a focused physical examination that is relevant and accurate for the purposes of diagnosis, management, health promotion, and disease prevention
- 3.4. Select medically appropriate investigative methods in a resource-effective and ethical manner
- 3.5. Demonstrate effective clinical problem solving and judgment to address patients; problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4. Use preventive and therapeutic interventions effectively

- 4.1. Implement a management plan in collaboration with a patient and the patient's family
- 4.2. Demonstrate appropriate and timely application of preventive and therapeutic interventions
 - 4.2.1. Include preventative health measures in relevant discussions of treatment
 - 4.2.2. Provide written and/or visual materials to supplement verbal health teaching, where appropriate

4.3. Obtain appropriate informed consent for therapies

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic

- 5.1. Obtain appropriate informed consent for procedures
- 5.2. Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to their practice
 - 5.2.1. Acquire technical skills required for the practice of dermatology, including dermoscopy, phototherapy, patch and photopatch testing and diagnostic techniques including KOH preparations, scrapings for mites, Tzanck smears, fungal culture, Wood's light examination, viral immunofluorescence, and hair mounts
- 5.3. Perform pre-surgical assessment to determine which therapeutic modality is most suitable
- 5.4. Utilize appropriate sterile techniques when performing dermatological procedures
- 5.5. Understand and apply the principles of local anesthesia
- 5.6. Perform dermatological procedures such as skin biopsy, curettage and electrodesiccation, simple fusiform excision, cryotherapy and layered closure with appropriate suturing methods
- 5.7. Provide post-operative care to optimize wound healing
- 5.8. Document and disseminate information related to procedures performed and their outcomes
- 5.9. Ensure adequate follow-up is arranged for procedures performed

6. Seek appropriate consultation from other health professionals, recognizing the limits of their own expertise

- 6.1. Demonstrate insight into their own limitations of expertise
- 6.2. Demonstrate effective, appropriate, and timely consultation with other health professionals as needed for optimal patient care
- 6.3. Arrange appropriate follow-up care services for patients and their families

Communicator

Definition:

As *Communicators*, Dermatologists effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Key and Enabling Competencies: Dermatologists are able to ...

1. Develop rapport, trust, and ethical therapeutic relationships with patients and families

- 1.1. Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence, and improved clinical outcomes
- 1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty, and empathy
- 1.3. Respect patient privacy, confidentiality, and autonomy
- 1.4. Listen effectively
- 1.5. Be aware of and responsive to nonverbal cues
- 1.6. Facilitate a structured clinical encounter effectively

2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals

- 2.1. Gather information about a disease and about a patient's beliefs, concerns, expectations and illness experience
- 2.2. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals when appropriate

3. Convey relevant information and explanations accurately to patients and families, colleagues, and other professionals

- 3.1. Deliver information to a patient and family, colleagues, and other professionals in a humane manner and in such a way that it is understandable and encourages discussion and participation in decision-making
 - 3.1.1. Communicate in clearly understood language with patients and their families
 - 3.1.2. Communicate clearly, thoroughly, and as frequently as is dictated by the situation, with medical colleagues, particularly the referring physician
 - 3.1.3. Communicate effectively and respectfully with nurses and other health professionals
 - 3.1.4. Communicate fully with those carrying out diagnostic procedures, such as Pathologists, in order to ensure the best outcome for the patient

4. Develop a common understanding on issues, problems, and plans with patients, families, and other professionals to develop a shared plan of care

- 4.1. Identify and effectively explore problems to be addressed from a patient encounter, including the patient's context, responses, concerns, and preferences
- 4.2. Respect diversity and differences, including but not limited to the impact of gender identity, sexual orientation, religion, ethnicity, and cultural beliefs on decision-making

- 4.3. Encourage discussion, questions, and interaction in the encounter
- 4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care
- 4.5. Address challenging communication issues effectively, including but not limited to obtaining informed consent, delivering bad news, and addressing anger, confusion, and misunderstanding

5. Convey oral, written, and/or electronic information effectively about a medical encounter

- 5.1. Maintain clear, concise, accurate, and appropriate records of clinical encounters and plans
- 5.2. Present oral reports of clinical encounters and plans
- 5.3. Convey medical information appropriately to ensure safe transfer of care

6. Present medical information effectively to the public or media about a medical issue

Collaborator

Definition:

As *Collaborators*, Dermatologists work effectively within a health care team to achieve optimal patient care.

Key and Enabling Competencies: Dermatologists are able to ...

1. Participate effectively and appropriately in an interprofessional health care team

- 1.1. Describe the Dermatologist's roles and responsibilities to other professionals
- 1.2. Describe the roles and responsibilities of other professionals within the health care team
- 1.3. Recognize and respect the diverse roles, responsibilities and competencies of other professionals in relation to their own
- 1.4. Work with others to assess, plan, provide, and integrate care for individuals and groups of patients
- 1.5. Work collaboratively in other activities and tasks; examples are research, educational work, program review, and/or administrative responsibilities
- 1.6. Participate in interprofessional team meetings
- 1.7. Enter into interdependent relationships with other professions for the provision of quality care

- 1.8. Describe the principles of team dynamics
- 1.9. Respect team ethics, including confidentiality, resource allocation, and professionalism
- 1.10. Demonstrate leadership in a health care team, as appropriate

2. Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict

- 2.1. Demonstrate a respectful attitude towards colleagues and members of an interprofessional team
- 2.2. Work with other professionals to prevent conflicts
- 2.3. Respect differences and the scopes of practice of other professions
- 2.4. Reflect on their own differences, misunderstandings, and limitations that may contribute to interprofessional tension
- 2.5. Reflect on interprofessional team function
- 2.6. Employ collaborative negotiation to resolve conflicts and address misunderstandings

Manager

Definition:

As *Managers*, Dermatologists are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

Key and Enabling Competencies: Dermatologists are able to ...

1. Participate in activities that contribute to the effectiveness of their health care organizations and systems

- 1.1. Work collaboratively with others in their organizations
- 1.2. Participate in systemic quality process evaluation and improvement, including patient safety initiatives
- 1.3. Describe the structure and function of the health care system as it relates to Dermatology, including the roles of physicians
- 1.4. Describe the principles of health care financing, including physician remuneration, budgeting, and organizational funding

2. Manage their practice and career effectively

2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities, and personal life

- 2.2. Demonstrate an understanding of the principles of finances and human resources in different models of practice
- 2.3. Implement processes to ensure personal practice improvement
- 2.4. Employ information technology appropriately for patient care
 - 2.4.1. Record and maintain complete and accurate medical records for every patient seen

3. Allocate finite health care resources appropriately

- 3.1. Demonstrate an understanding of the importance of just allocation of health care resources, balancing effectiveness, efficiency, and access with optimal patient care
- 3.2. Apply evidence and management processes for cost-appropriate care

4. Serve in administrative or leadership roles

- 4.1. Participate effectively in committees and meetings
- 4.2. Lead or implement change in health care
- 4.3. Plan relevant elements of health care delivery, such as work schedules

Health Advocate

Definition:

As *Health Advocates*, Dermatologists use their expertise and influence responsibly to advance the health and well-being of individual patients, communities, and populations.

Key and Enabling Competencies: Dermatologists are able to ...

1. Respond to individual patient health needs and issues as part of patient care

- 1.1. Identify the health needs of an individual patient
- 1.2. Identify the barriers in accessing health care and therapeutics, and ways to address them
- 1.3. Identify opportunities for advocacy, health promotion, and disease prevention with individuals to whom they provide care
 - 1.3.1. Counsel patients on the importance of taking responsibility for their own well-being and recognize the important determinants predisposing to skin diseases, such as sun exposure awareness
 - 1.3.2. Educate, including being able to generate and access information such as printed material or web sites, and be available as a resource person to counsel patients effectively on skin disorder

1.4. Demonstrate an appreciation of the possibility of competing interests between advocacy for an individual and for the community at large

2. Respond to the health needs of the communities that they serve

- 2.1. Describe the practice communities that they serve
- 2.2. Identify opportunities for advocacy, health promotion, and disease prevention in the communities that they serve, and respond appropriately
 - 2.2.1. Describe the activities, roles, or functions of community resources and related patient support groups
- 2.3. Demonstrate an appreciation of the possibility of competing interests between the communities served and other populations

3. Identify the determinants of health for the populations that they serve

- 3.1. Identify the determinants of health of the population, including barriers to access to care and resources
 - 3.1.1. Identify risk factors and populations at risk for skin disease, such as outside workers
- 3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

4. Promote the health of individual patients, communities, and populations

- 4.1. Describe an approach to implementing a change in relevant determinants of health of the populations they serve
- 4.2. Describe how public policy impacts on the health of the populations served
- 4.3. Identify points of influence in the health care system and its structure
- 4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity, and idealism
- 4.5. Demonstrate an appreciation of the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper
- 4.6. Describe the role of the medical profession in advocating collectively for health and patient safety

Scholar

Definition:

As *Scholars*, Dermatologists demonstrate a lifelong commitment to reflective learning and the creation, dissemination, application, and translation of medical knowledge.

Key and Enabling Competencies: Dermatologists are able to ...

1. Maintain and enhance professional activities through ongoing learning

- 1.1. Describe the principles of maintenance of competence
- 1.2. Describe the principles and strategies for implementing a personal knowledge management system
- 1.3. Recognize and reflect on learning issues in practice
- 1.4. Conduct a personal practice audit
- 1.5. Pose an appropriate learning question
- 1.6. Access and interpret the relevant evidence
- 1.7. Integrate new learning into practice
- 1.8. Evaluate the impact of any change in practice
- 1.9. Document the learning process

2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions

- 2.1. Describe the principles of critical appraisal
- 2.2. Critically appraise dermatology literature as it relates to patient diagnosis, investigation and treatment, as well as clinically relevant cutaneous basic science
 - 2.2.1. Assess and interpret non-academic or alternative sources of information that may be available or promoted to patients and health care professionals
- 2.3. Integrate critical appraisal conclusions into clinical care

3. Facilitate the learning of patients, families, students, residents, other health professionals, the public, and others

- 3.1. Describe principles of learning relevant to medical education
- 3.2. Identify collaboratively the learning needs and desired learning outcomes of others
- 3.3. Select effective teaching strategies and content to facilitate others' learning
- 3.4. Deliver effective lectures or presentations
- 3.5. Assess and reflect on teaching encounters
- 3.6. Provide effective feedback

- 3.7. Describe the principles of ethics with respect to teaching
- 3.8. Promote a safe learning environment
- 3.9. Ensure patient safety is maintained when learners are involved

4. Contribute to the development, dissemination, and translation of new knowledge and practices

- 4.1. Describe the principles of research and scholarly inquiry
- 4.2. Describe the principles of research ethics
- 4.3. Pose a scholarly question
- 4.4. Conduct a systematic search for evidence
- 4.5. Select and apply appropriate methods to address the question
- 4.6. Demonstrate the ability to prepare a paper for publication

Professional

Definition:

As *Professionals*, Dermatologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Key and Enabling Competencies: Dermatologists are able to...

1. Demonstrate a commitment to their patients, profession, and society through ethical practice

- 1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect, and altruism
- 1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence
- 1.3. Recognize and appropriately respond to ethical issues encountered in practice and research, ensuring that patients' interests are protected
- 1.4. Manage conflicts of interest
 - 1.4.1. Demonstrate understanding of the potential conflicts of interest that may occur with industry
- 1.5. Recognize the principles and limits of patient privacy and confidentiality, as defined by the law and professional practice standards
 - 1.5.1. Demonstrate understanding of appropriate disclosure with respect to third party interests, such as an employer, insurance company, or legal representation

1.6. Maintain appropriate boundaries with patients

2. Demonstrate a commitment to their patients, profession, and society through participation in profession-led regulation

- 2.1. Demonstrate knowledge and understanding of the professional, legal, and ethical codes of practice
- 2.2. Fulfil the regulatory and legal obligations required of current practice
- 2.3. Demonstrate accountability to professional regulatory bodies
- 2.4. Recognize and respond appropriately to others' unprofessional behaviours in practice
- 2.5. Participate in peer review

3. Demonstrate a commitment to physician health and sustainable practice

- 3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
- 3.2. Strive to heighten personal and professional awareness and insight
- 3.3. Recognize other professionals in need and respond appropriately

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