Overall Goals of Training, Core Internal Medicine Residency, University of Alberta

Preamble. Internal Medicine Training in Canada includes four years of approved residency training. The first three core years are common for all residents. The final (fourth) year may include a further year in General Internal Medicine or in any one of twelve subspecialty fields. This document provides an overview of the overall goals of the core years of residency training at the University of Alberta. These are organized according to CanMEDS roles

Medical Expert

The curriculum is delivered through regular teaching sessions, academic half-days, podcasting, journal clubs, simulation, morbidity and mortality rounds, and most significantly in the context of patient-care. The resident will be provided with adequate resources in this context, including paper and electronic references (MKSAP, Up To Date).

Regular evaluation of a resident's knowledge, skills, and attitudes in this domain are part of the monthly evaluation scheme for each clinical rotation. A Mini-CEX should be conducted in every rotation, and the Clinical Exam Passport will track the acquisition of skills in procedures, physical examination, diagnosis and management. The resident's knowledge and skills in the Medical Expert domain will also be evaluated in an observed history (R1), annual oral examination (R2 and R3), annual OSCE (R1 and R2), and completion of the American College of Physicians In-Training Examination (R1-3). Successful completion of all but the ACP Exam will be required to be advanced to the next year of training.

R1. After the first year of residency training, the residents will demonstrate the characteristics of an interpreter for common clinical presentations.

- perform a complete and reliable history and physical examination, recognizing the normal from the abnormal.
- select appropriate investigations in a logical sequence, recognizing normal from abnormal results, and their significance.
- Procedures: competence in obtaining consent for procedures, interpreting electrocardiograms, venipunctures, nasogastric tube insertions, and urinary catheter insertions.

R2. After the second year of residency training, the resident will demonstrate the characteristics of a manager for common clinical presentations and interpreter for uncommon clinical presentations.
• formulate a comprehensive problem list, synthesize an effective diagnostic and therapeutic plan, and establish appropriate follow-up.
• demonstrate effective consultation skills, presenting well-documented assessments and recommendations both verbally and in writing.
• **Procedures:** *competence* in performing central venous catheter insertion, lumbar puncture, peripheral arterial catheter insertion, abdominal paracentesis, endotracheal intubation, thoracentesis, knee joint aspiration.

**R3.** After the third year of residency training, the resident will demonstrate the characteristics of an **educator** for common clinical presentations and **manager** for uncommon clinical presentations.

• be knowledgeable in both common and uncommon diseases.
• Demonstrate technical expertise in performing the following procedures while knowing their indications and complications:
  • **Procedures:** *established skills and the capacity to teach* the following procedures: EKG interpretation, venipuncture, nasogastric tube insertion, urinary catheter insertion, central venous catheter insertion, lumbar puncture, peripheral arterial catheter insertion, abdominal paracentesis, endotracheal intubation, thoracentesis, knee joint aspiration.

The resident’s knowledge, attitudes, and skills in this context will show appropriate evolution over the three years of training, with appropriate mastery of more advanced concepts and skills in this field as the resident’s clinical training progresses.

**Communicator**

The curriculum is structured to occur in the patient-care context through the recognition and application of the principles of verbal and written communication with patients, families, colleagues, and other health-care professionals, and in discussions and presentations with health-care professionals. Residents also make regular presentations with feedback in academic half days, and morbidity and mortality rounds. Communicator topics have been included in the annual CanMEDS Day. In groups of four with a faculty facilitator, residents practice their communication skills and are given peer-based feedback on how they might improve. The two-week CanMEDS rotation in third year provides a daily forum for group discussion and analysis of methods and approaches to better communicate with patients, families, and colleagues. Both the CanMEDS Day and the CanMEDS rotations are mandatory.

Regular evaluation of a resident's knowledge, skill, and attitudes in this domain are part of the monthly evaluation scheme for each clinical rotation. Directly observed patient
interviews occur annually in observed histories, oral examinations, OSCEs and the monthly Mini-CEX.

As a result, residents should demonstrate competency in the following elements of the communicator domain

- establish rapport and trust in the doctor-patient relationship. This includes respect for diversity, overcoming language and cultural differences, empathy, listening, non-verbal communication,
- establish rapport and trust in the team setting, but with colleagues and other professionals or team members in the care setting. This includes shared decision making, concordance, mutual understanding, integrity, flexibility, effective listening, respect, and appropriate documentation
- elicit information for patient care through history taking, physical examination, chart review, and the use of informatics.
- express accurate clinical findings, both verbally and in writing, in a manner that demonstrates a sound knowledge of the underlying illness scripts, and emphasizes the elements most likely to lead to a correct diagnosis and plan of action.
- effectively communicate sensitive issues such as breaking bad news, addressing end-of-life issues, disclosure of error or adverse events.
- conduct family and team conferences

The resident's knowledge, attitudes, and skills in this context will show appropriate evolution over the three years of training, with appropriate mastery of more advanced concepts in communication as the resident's clinical training progresses.

**Collaborator**

The curriculum is structured to occur primarily through the patient-care context, where residents are collaborative members of multidisciplinary and interdisciplinary healthcare teams. The CanMEDS rotation includes group discussion on the role of the physician on clinical teams, and the need for close cooperation and collaboration with other services and other members of clinical teams. The benefits of collaboration are reinforced.

Regular evaluation of a resident's knowledge, skill, and attitudes in this domain are part of the monthly evaluation scheme for each clinical rotation.

As a result, residents should demonstrate competency in the following elements of the collaborator domain

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• understand and describe the expertise and role of all of the members of an interdisciplinary team.
• participate as a collaborative member of the health-care team, demonstrating shared analysis and decision making skills and contributing appropriate expertise and leadership to the team.
• develop a care plan for patients, based upon the collaboration among the different members of the health-care team.
• constructively negotiate solutions to challenging clinical, psychological or social issues that arise in patient care or learning.
• effectively resolve conflict
• recognize personal limitations and seek proper assistance in the best interests of patients.

The resident's knowledge, attitudes, and skills in this context will show appropriate evolution over the three years of training, with appropriate mastery of more advanced attitudes and skills involved in being a collaborator as the resident's clinical training progresses.

**Manager**

The curriculum is structured to occur primarily through the patient-care context. It is in this context that residents participate in the day-to-day care of in-and out-patients, as they make everyday practice decisions involving resources, co-workers, tasks, policies, and their personal lives. The ability to prioritize and effectively execute tasks is taught via the management of the resident's multiple roles and responsibilities, including in-patient care, out-patient clinics, teaching, administration, and personal responsibilities. Senior residents take charge of the coordination and direction of junior residents and students on clinical teaching units. The annual resident retreat includes topic on time management, and principles of practice management and financial planning.

Regular evaluation of a resident's knowledge, skill, and attitudes in this domain are part of the monthly evaluation scheme for each clinical rotation.

As a result, residents should demonstrate competency in the following elements of the manager domain:

• utilize personal resources effectively, including time and personal capacity, to balance patient care, learning needs, and outside activities.
• demonstrate the ability to prioritize and triage in the context of competing demands.
• allocate health-care resources wisely.
• work efficiently in a health-care organization including engagement with secretarial staff, program assistants, managers, leaders and other stakeholders.
• utilize information technology to optimize patient care, life-long learning, and other activities.
• recognize the business and financial skills necessary for a successful medical practice.
• take responsibility for delegated tasks and properly delegate when appropriate.

The resident's knowledge, attitudes, and skills in this context will show appropriate evolution over the three years of training, with appropriate mastery of more advanced attitudes and skills involved in being a manager as the resident's clinical training progresses. It is recognized that many of these skill development in this domain will continue into the fourth year of residency training and into practice.

**Health Advocate**

The curriculum is structured to occur primarily through the patient-care context. It is in this context that the resident participates in the day-to-day care of in- and out-patients, as an advocate for the individual patient and society as a whole. In the CanMEDS rotation, residents confront scenarios that bring into conflict the physician’s duties to advocate for their patient’s autonomy and beneficence with distributive justice when there are limited resources. Residents are encouraged to plan international electives which emphasize global health issues.

Regular evaluation of a resident's knowledge, skill, and attitudes in this domain are part of the monthly evaluation scheme for each clinical rotation.

As a result, residents should demonstrate competency in the following elements of the health advocate domain:

• identify the important determinants of health affecting patients. More specifically, the resident will be able to educate patients about long-term healthy behaviour and preventive health care.
• contribute effectively to improved health of patients and communities.
• use authority and influence responsibly to help advocate for the best interests of patients.
• appreciate the existence of global health advocacy initiatives for elimination of poverty and disease.
• participate in quality improvement exercises in the context of patient care.
• understand fiduciary duty to care

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• perform an assessment of decision making capacity, and help find an ethical balance between a patient’s expressed choice and their best interests.

The resident's knowledge, attitudes, and skills in this context will show appropriate evolution over the three years of training, with appropriate mastery of more advanced attitudes and skills involved in being a health advocate as the resident’s clinical training progresses.

**Scholar**

The curriculum is structured to occur through regular journal clubs, academic half-days, subspecialty teaching sessions, Teaching Enhancement Modules, and supervised research projects. The resident will have regular opportunities to present clinical cases and topic reviews in Critically Appraised Topic Sessions (CATS) in academic half day and at various clinical conferences. A generous travel fund for all residents allows participation in conferences and the purchase of tools and materials that reinforce their learning.

Regular evaluation of a resident's knowledge, skills, and attitudes in this domain are part of the monthly evaluation scheme for each clinical rotation.

Residents have the opportunity to present their research work to their colleagues at the annual "Resident Research Day". Presentation of appropriate work at provincial, national, and international conferences is strongly encouraged and supported.

As a result, residents should demonstrate competency in the following elements of the scholar domain:

• apply the principles of critical appraisal to sources of medical information, in the clinical, research, and educational contexts.
• apply knowledge in clinical practice
• facilitate the learning of patients, students, residents, and other health-care professionals.
• contribute to the development of new knowledge.
• develop and implement a personal strategy for lifelong learning and maintenance of competence.
• foster skills in self-assessment and directed learning.

The resident’s knowledge, attitudes, and skills in this context will show appropriate evolution over the three years of training, with appropriate mastery of more advanced...
concepts in clinical epidemiology, teaching, and research as the resident's clinical training progresses.

**Professional**

The curriculum is structured to occur through the patient-care context. Further training in medico-legal issues will be offered to residents in the context of an academic half-day. The annual resident retreat is mandatory and delivers specific sessions on professionalism, physician health, stress management, and practice management. All residents are provided with a copy of *Bioethics at the Bedside* by Peter Singer. All residents participate in a two-week CanMEDS rotation that is built on cases and readings in biomedical ethics.

Regular evaluation of a resident's knowledge, skill, and attitudes in this domain are part of the monthly evaluation scheme for each clinical rotation.

As a result, residents should demonstrate competency in the following elements of the professional domain:

- deliver quality care with integrity, honesty, and compassion.
- show appropriate personal and interpersonal behaviours.
- practice medicine ethically, consistent with the obligations of a physician.
- maintain personal and family health and well-being by keeping in check the demands of residency training while seeking support when required.
- offer assistance to respect a professional obligation to peers and society
- maintain a commitment to excellence and mastery of the discipline of medicine
- exercise facility in the application of bioethical principles and theories
- disclose personal error and adverse events

The resident's knowledge, attitudes, and skills in this context will show appropriate evolution over the three years of training, with appropriate mastery of more advanced attitudes and skills involved in being a professional as the resident's clinical training progresses.