

EUROPEAN CURRICULUM *of* **INTERNAL MEDICINE**

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TRAINING REQUIREMENTS FOR THE SPECIALTY OF INTERNAL MEDICINE

European Standards of Postgraduate Medical Specialist Training



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GLOSSARY OF TERMS

CanMEDS	A framework of the essential competencies of physicians for optimal care.
Collaborator	An internist who works effectively with other physicians and healthcare professionals.
Common trunk	The first 2 years of a postgraduate training programme which offer a broad range of experience in internal medicine for doctors training in any medical specialty.
Communicator	An internist who establishes an excellent professional relationship with patients and their families.
Dual certification	The attainment of certification of competence in internal medicine and another medical specialty at a national level.
EBIM	European Board of Internal Medicine.
EFIM	European Federation of Internal Medicine.
EPA	Entrustable professional activity; this is a form of summative assessment that allows a trainee to be certified in a clinical activity that is part of the practice of internal medicine.
Harmonisation	The process of creating common standards in the training of internal medicine across the different European nations.
Health advocate	An internist who serves and improves the healthcare of patients and populations.
Internal medicine	The medical specialty dedicated to the diagnosis and medical treatment of adults.
Internist	A physician who specialises in internal medicine.
Leader	An internist who contributes to the improvement of healthcare delivery in teams, organisations and systems.
Medical expert	An internist who practises medicine within the clinical scope of internal medicine practice and expertise.
Milestone	A significant stage in the progression of the competencies of a trainee from the onset of medical training to advanced practice.
Professional	An internist who demonstrates a commitment to patients by applying best practices and adhering to high ethical standards.
Scholar	An internist who engages in lifelong learning and professional development through ongoing development.
UEMS	European Union of Medical Specialists.

Preamble

The European Union of Medical Specialists (UEMS) is a non-governmental organisation representing national associations of medical specialists in Europe. With a current membership of 34 national associations and operating across 39 specialist sections and European boards, the UEMS is committed to promoting the free movement of medical specialists throughout Europe, while ensuring the highest standard of training, in order to improve the quality of care for the benefit of all European citizens. Specific areas of interest to the UEMS include:

- continuing medical education
- postgraduate medical training
- quality assurance

The UEMS believes that the standard of medical care and expertise is directly linked to the standard of training provided to medical professionals. Therefore, the UEMS is committed to contributing to the improvement of medical training in Europe through the development of a set of core competencies in the different medical disciplines to provide consistency regardless of where doctors are trained.

The legal mechanism for ensuring the free movement of doctors within Europe through recognition of their qualifications was established back in the 1970s by the European Union. One of the sectoral directives in the Treaty of Rome specifically addressed the issue of Europe-wide medical training. However, in 2005 the European Commission suggested to the European Parliament and the Council that there should be a single legal framework for the recognition of professional qualifications to facilitate and improve the movement of all workers throughout Europe. This directive (Directive 2005/36/EC) established the mechanism for the automatic mutual recognition of doctors' qualifications according to the training requirements within individual Member States; this is based on the length of training in a particular specialty and the type of qualification.

In 1993, the UEMS adopted the Charter on Training of Medical Specialistsⁱ in the European Community, aimed at providing recommendations to be applied within Europe. The six chapters of this charter set out the basis of the European approach to postgraduate medical training. Chapters 1-5 are common to all specialties. Chapter 6 applies to each specialist section according to the specific needs of each discipline.

Since the introduction of this charter, the UEMS specialist sections and the European boards have been working to develop core European competencies in medical training that reflect modern medical practice and current scientific research. In doing so, the UEMS specialist sections and European boards aimed not to supersede the core competencies defined by the national competent authorities in their home states, but rather to complement these competencies and ensure that a high standard of training is provided across Europe.

Given the long-standing experience of the UEMS specialist sections and the European boards on one hand, and the European legal framework enabling medical specialists and trainees to move from one country to another on the other hand, the UEMS is uniquely placed to provide specialty-based recommendations. The UEMS values professional competence as "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served"¹.

Professional activity is regulated by national law in the Member States of the European Union, and the UEMS understands that it has to comply with international treaties and the United Nations Universal Declaration of Human Rights, as well as the World Medical Association's International Code of Medical Ethics.

In view of the developments outlined above, the European Board of Internal Medicine (EBIM) has created a curriculum to guide postgraduate education in the specialty of internal medicine. The curriculum presents the minimum training requirements for the qualification as a specialist in internal medicine. When implemented in individual European countries, additional requirements can be added in accordance with national traditions and needs. At present, the curriculum has no legal obligations and is not compulsory for the Member States of the European Union.

ⁱ UEMS. Charter on Training of Medical Specialists.
Available at: https://www.uems.eu/_data/assets/pdf_file/0011/1415/g06.pdf.
Accessed 10 June 2015.

Background

The objectives of the UEMS Section of Internal Medicine include the progressive harmonisation of the content and quality of training in internal medicine within the Member States of the European Union and the other European countries. To this end, the UEMS Section of Internal Medicine and the European Federation of Internal Medicine (EFIM) founded the EBIM, which has defined training requirements that reflect the opinions of the individual national internal medicine societies and professional organisations, including the contents of the training, the assessments of competence and an outline of the desirable contexts for training, i.e. the requirements for trainees, trainers and training institutions.

The EBIM acknowledges the European Union directive that regulates the free movement of professionals within the European Union based on harmonised minimum training requirements and the transparent recognition of professional qualifications (Directive 2005/36/EC, amended 2013/55/EC)ⁱⁱ. The EBIM, therefore, recognises the need for a core European competency-based curriculum of internal medicine. National authorities may supplement the recommendations in the European curriculum with the additional training and assessments that they deem relevant to their own training programme structure.

There is at present no standardised accreditation of postgraduate training periods completed in another European country towards qualification as an internist. The retrospective recognition of training will be decided at a national level according to each national authority's rules. This curriculum may facilitate the process of accreditation of previous internal medicine training in another country, as it aims to standardise training in internal medicine across Europe.

The EBIM has tasked a working group (Appendix A) to devise a core European competency-based curriculum, taking into account representative national curricula put forward by individual European countries. The working group comprises trainees, young internists, trainers and national training programme directors.

The Training Requirements for the Specialty of Internal Medicine are based on earlier UEMS documents, including the 1994 charter on specialist training, particularly Chapter 6 on internal medicine, and EFIM documents,^{2,3,4,5,6,7,8}

The current document is based on the aforementioned Chapter 6 of the Charter on Training of Medical Specialists in the European Community and provides definitions of specialist competencies and procedures, as well as guidance on how to document and assess them. For the sake of transparency and coherence, this document has been renamed "Training Requirements for the Specialty of Internal Medicine". As the title suggests, the document aims to outline the basic training requirements for this specialty. It should be regularly updated by the UEMS Section of Internal Medicine, in conjunction with EFIM, to reflect scientific and medical progress. The three-part structure (detailing training requirements for trainees, trainers and training institutions) of the document reflects the UEMS and EFIM approaches to providing a coherent pragmatic document, not only for medical specialists but also for decision-makers — at both the national and European levels — interested in knowing more about medical specialist training.

Several countries are not members of the European Union or European Economic Area, but are affiliated to either UEMS or EFIM (Appendix B); they are also invited to adopt this curriculum.

Devising a European curriculum for the specialty of internal medicine is more difficult than for most other specialties. The main reason for this is the highly variable role of the internist throughout Europe. In some countries, internists are largely office-based and provide care directly to patients in an outpatient setting, whereas elsewhere they mainly care for inpatients, with their principal role being to manage acutely ill patients with medical problems. The diseases of the patients cared for by internists may vary between countries; the national training curricula are likely to reflect these differences.^{6,7}

Many medical specialties have core competencies based in internal medicine. To meet the future healthcare challenges in Europe,⁹ the EBIM believes that it is essential that all physicians practising these specialties not only obtain a broad training in internal medicine, but also nurture and maintain expertise in this field. This should be irrespective of any subsequent specialisation or practice. These basic competencies in internal medicine, often referred to as the "common trunk", are defined further in Appendices C and D.

ⁱⁱ Directive 2013/55/EU of the European Parliament and of the Council of 20 November 2013, amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System ("the IMI Regulation").

The process of the standardisation of internal medicine training in Europe runs in tandem with other related European developments. These include the certification, re-certification, continuing medical education (CME) and continuing professional development (CPD) of internists. Eventually, a European diploma in internal medicine will be developed together with online supporting educational materials.

It is clear that the development of the curriculum is not the whole story. For example, the curriculum does not cover the quality assurance of national programmes or the formal accreditation of training centres. In addition, the ability to travel and practise throughout Europe is dependent upon the specific requirements of each country.

This curriculum provides a stepping stone towards realising the ambition that all internists will be trained according to a common standard. The curriculum aims to provide guidance on how this may be achieved.

Definition of internal medicine and mission statement

Internal medicine is the core medical discipline that is responsible for the care of adults with complex illness, both in the hospital and in the community. It is patient centred, scientifically based and committed to ethical and holistic principles of care. Internal medicine is a clinical and scientific discipline that creates and promotes medical knowledge, methods and clinical abilities. Internal medicine analyses the findings of other medical specialties and integrates them into strategies for diagnosis, treatment and care for individual patients.

In European countries, increasing numbers of elderly patients are suffering from several chronic health problems and, hence, an integrated response is needed to ensure high-quality patient care¹⁰. This trend necessitates both a holistic and a multidisciplinary approach, which forms the core of internal medicine.

Definition of the internist

Internists play a fundamental role in modern healthcare systems. This is largely because of the increasing prevalence of the chronic and complex diseases that are associated with the lifestyle of ageing western societies. This demographic change necessitates a shift towards preventive strategies focusing on health promotion.

The UEMS defines an internist as follows:

*An internist is a physician trained in the scientific basis of medicine, who specialises in the assessment, diagnosis and management of general medical problems, atypical presentations, multiple problems and consequential complex health issues, and system disorders (**professional**ⁱⁱⁱ). The physician is skilled in the management of acute, unselected medical emergencies and the management of patients in a holistic and ethical way, considering all psychosocial as well as medical factors for enhancing quality of life. The physician values the continuing care of all patients, irrespective of the nature of the patient's complaint, and is committed to lifelong continued professional development (**scholar**). The physician practises clinical audit and evidence-based medicine. The physician functions in a number of roles, including clinical counselling, educating, leading and managing.*

The onset of many chronic diseases is influenced by lifestyle-related risk factors. These conditions significantly contribute to the increased burden of disease and disability among older people. Associated healthcare costs will rise accordingly unless greater efforts are made to either prevent these conditions or treat them at an earlier stage. The role of **health advocate** in this wider context is another important function of an internist.

The specific fields of expertise of internists include the evaluation and management of patients with general or non-specific symptoms, patients with complex multisystem clinical problems, and patients with co-morbidities and polypharmacy. The internist provides acute, chronic and palliative care, as well as preventive care (**medical expert**). Although the medical practice of internists varies among European countries, the provision of comprehensive medical care is a common theme.

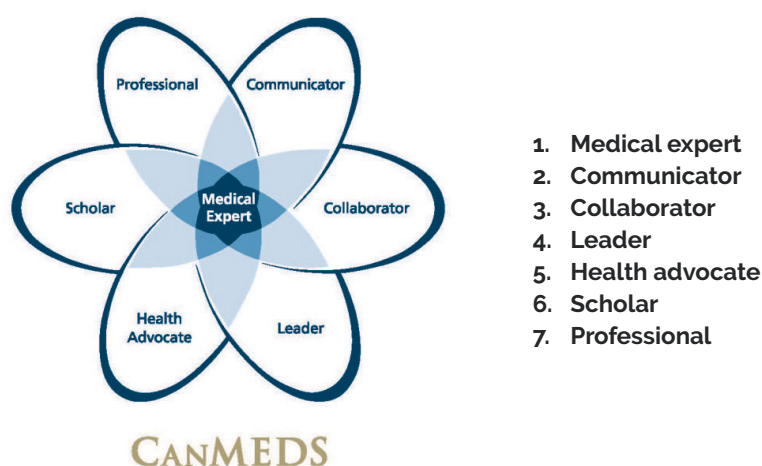
The basic instrument of the internist is clinical reasoning.^{11,12} As part of a wider healthcare team, the internist has to effectively coordinate the care provided by other professionals for the benefit of the patient (**collaborator**). Internists should also facilitate and support the participation of patients in their own care and help them to make decisions about health

ⁱⁱⁱ The CanMEDS roles (in bold) are described on p. 8.

issues (**communicator**). The internist needs to be an advocate for health issues both for individual patients and within the community at large (**health advocate**). Furthermore, the internist will, in certain situations, require managerial and business skills (**leader**). Finally, internists should be proficient in both teaching and scientific enquiry (**scholar**).

The Training Requirements for the Specialty of Internal Medicine aim to ensure that internists are competent in the context of all European healthcare systems, allowing the efficient coordination of care by all medical specialties and a mobile workforce, and recognising that medical care has to be optimised in line with the advanced diagnostic and therapeutic tools available. It is important that these objectives are reflected in the training requirements for internists across Europe.

The competency framework adopted and adapted by the Curriculum Working Group is the CanMEDS Framework,^{13,14} which defines the generic competencies of the internist (see Part I, Training Requirements for Trainees, and Appendix C). These generic competencies are listed below and are referenced and elaborated upon throughout the document to emphasise their importance.



The training provided must enable the internist to manage complex decision-making and the challenges of developing better standards of care, quality improvement strategies and patient safety tools, along with integrated healthcare delivery systems. An important mission of internal medicine is to actively support the development of a dynamic and sustainable healthcare system for the future.

The common trunk

As a consequence of an ageing population in Europe, there are increasing numbers of patients suffering from more than one chronic condition. The care of these patients often requires a number of different specialists. It is important that all specialties stemming from internal medicine contribute to integrated care, having a knowledge base in internal medicine. Only a concerted action by all these specialties together with the specialty of internal medicine can bridge the existing gaps in healthcare delivery and provide comprehensive patient care. The broad-based training requirements of the common trunk (see Part I below) should enable medical specialists other than internists to be proficient in the care of patients with common chronic diseases outside their specific field of expertise. Practitioners should be willing to meet community needs and value the maintenance of their knowledge and skills in internal medicine.

Detailed training requirements for trainees are given in Part I. Training requirements for trainers and training institutions are provided in Parts II and III.



TRAINING REQUIREMENTS FOR TRAINEES

1. CONTENT OF TRAINING AND LEARNING OUTCOMES

1.1 Generic competencies

As previously noted, the Curriculum Working Group has adopted the CanMEDS Competency Framework^{13,14} to define the generic competencies of the internist. CanMEDS has been adopted by countries on five different continents, making it the world's most recognised and widely applied competency-based framework for physicians.

The seven generic roles defined in Section 1.2 have been identified; they cover all areas of medical practice and, thus, provide a comprehensive foundation for medical education. Each role has been defined by key competencies (as described below), which are translated into enabling competencies (Appendix C) and specific learning objectives for the internist. We have adapted and/or complemented the key competencies and/or enabling competencies as deemed appropriate for the European community based on the available position papers^{2,5,8} by EFIM, as well as existing curricula in individual European countries.

Currently, individual European countries may have definitions for the competencies of the internist that are based on a framework that differs from the one used in this document. This is not considered a problem as long as all key and enabling competencies are covered in the learning objectives of their curricula. Ultimately, however, the aim should also be to harmonise the framework.

1.2 Key competencies of the CanMEDS roles

A. Medical expert

As medical experts, internists integrate all of the CanMEDS roles and apply medical knowledge, clinical skills and a professional attitude when providing high-quality and safe patient-centred care. The medical expert is the central role of the CanMEDS Framework and defines the internist's clinical scope of practice.

As medical experts, internists are able to:

- a. Practise medicine within the clinical scope of the practice and expertise of internal medicine;
- b. Perform a patient-centred clinical assessment and establish management plans;
- c. Plan and perform interventions for the purpose of assessment and/or management;
- d. Establish plans for timely follow-up and appropriate consultation;
- e. Actively participate, as an individual and as a member of a team, in the continuous improvement of healthcare quality and patient safety.

B. Communicator

As communicators, internists form relationships with patients and their families that facilitate the gathering and sharing of essential information that is essential for exemplary healthcare.

As communicators, internists are able to:

- a. Establish professional therapeutic relationships with patients and their families;
- b. Elicit and synthesise accurate and relevant information, incorporating the perspectives of patients and their families;
- c. Engage patients and their families in developing plans that reflect the patients' healthcare needs and expected outcomes;
- d. Document and share written and electronic information about the medical encounter to optimise clinical decision-making, patient safety, confidentiality and privacy.

C. Collaborator

As collaborators, internists work effectively with other healthcare professionals to provide the highest possible standard of patient care.

As collaborators, internists are able to:

- a. Work effectively with other physicians and healthcare professionals;
- b. Work in multidisciplinary healthcare teams to prevent misunderstandings, manage differences and resolve conflicts;
- c. Effectively and safely transfer care to another appropriate healthcare professional.

D. Leader

As leaders, internists develop, in collaboration with other healthcare leaders, a vision of a high-quality healthcare system and take responsibility for effecting change to enable the achievement of that vision.

As leaders, internists are able to:

- a. **Contribute to the improvement of healthcare delivery in teams, organisations and systems;**
- b. **Engage in the stewardship of healthcare resources;**
- c. **Demonstrate leadership in professional practice;**
- d. **Manage their practice and career.**

E. Health advocate

As health advocates, internists responsibly apply their expertise and influence to improve health through working with the patients, communities or populations they serve. This helps internists to determine and understand needs to develop partnerships, to speak on behalf of others when needed and to support the mobilisation of resources to effect change.

As health advocates, internists are able to:

- a. **Respond to an individual patient's complex health needs by working with them within and beyond the clinical environment;**
- b. **Respond to the needs of the community or patient population they serve by working with them to achieve system-level change.**

F. Scholar

As scholars, internists demonstrate a lifelong commitment to excellence in practice through continuous learning, the teaching of others, the evaluation of evidence and other resources, and contributions to scholarship.

As scholars, internists are able to:

- a. **Engage in continuous improvement and professional development through ongoing learning;**
- b. **Facilitate the learning of students, trainees, other healthcare professionals, the public and other stakeholders;**
- c. **Integrate best available evidence, contextualised to specific situations, into real-time decision-making;**
- d. **Critically evaluate the integrity, reliability and applicability of health-related research and literature;**
- e. **Contribute to the dissemination and/or creation of knowledge and practices applicable to health.**

G. Professional

As professionals, internists are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, commitment to the profession, profession-led regulation and maintenance of personal health.

As professionals, internists are able to:

- a. **Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards;**
- b. **Demonstrate a commitment to society by recognising and responding to the social contract in healthcare;**
- c. **Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation;**
- d. **Demonstrate a commitment to physician health and well-being to foster optimal patient care.**

1.3 Specific areas of expertise

In addition to the roles described above, there are specific areas of expertise where internists have to take the lead to address current and future healthcare needs.⁵

A. Multimorbidity and ageing

The European population is ageing and therefore the number of patients with chronic disease and complex medical needs is steadily increasing.⁹ This is already a major challenge that will continue to evolve in future years in Europe, as patients may have several diseases requiring treatment at the same time, which may result in polypharmacy. This requires a generalist rather than a specialist approach, and places the internist in a prominent and vital coordinating role. Older, frail patients with complex medical needs and significant co-morbidities may also benefit from an approach involving close collaboration with and contribution from geriatric medicine services.

B. Acute care

Internists need to be capable of managing common medical emergencies. They should be familiar with the triage of acutely ill patients. They should acquire and maintain skills in basic and advanced life support. Internists should be able to lead in the emergency setting having the prime responsibility of integrating the care provided by the acute healthcare team in the hospital.¹⁵

C. Medical consultation

Internal medicine is increasingly a medical specialty that supports other medical specialists who perform highly sophisticated and often invasive procedures in patients with multimorbidities and complex problems. One consultant is generally needed to coordinate and integrate the care provided by the healthcare team. The internist is particularly effective in this role.¹⁶

D. Shared decision-making

It is an internist's responsibility to respect the autonomy of patients and help empower them to make informed decisions about their treatment. Internists are particularly well qualified to support patients and, often, their families or representatives and help them reach informed decisions.^{17,18,19}

E. Collaborative care

Internists assume responsibility for the comprehensive medical care of all patients who need a collaborative approach. This is a patient-centred approach rather than a disease-specific one. Internists are particularly well qualified to provide quality medical care for patients with a combination of health problems, multi-organ and systemic diseases, and undetermined conditions. They are best prepared to coordinate the care of patients with multiple chronic conditions. Today, most medical care relies on teamwork. Internists possess the necessary skills for leading and coordinating multidisciplinary teams and for collaborating with other medical specialists as needed to provide the best integrated care possible.^{20,21} Frail elderly patients with complex medical needs are especially at risk, so it is of paramount importance that sufficient attention is given to this process in such cases.²²

F. Transition of care

The transition of younger patients from paediatrics to adult health services is a dynamic, active process that requires collaboration between medical and allied healthcare professionals and patient associations. The internist should undertake the necessary training and develop the skills, attitudes and values required to deliver services amenable to young adults or any others requiring their care. Transition of care should be monitored and evaluated to aid future development. The transition of care from hospitals to other appropriate safe environments for all patients should remain the internist's responsibility.

G. Vulnerable adults

A vulnerable patient may be an elderly person, may have dementia and/or psychiatric or complex physical disorders, and/or may have adverse financial and social circumstances. An acute illness resulting in hospital admission can augment these frailties. The internist should aim to represent the best interests of the patient. The design and delivery of services should also take into consideration the specific needs of the most vulnerable patients and those known to have poorer levels of access and outcomes. The delivery of dignified and patient-focused care in a safe clinical environment should always be one of the principal objectives of the internist.²³

H. Patient safety and quality of care

Internists are aware of their responsibility towards society. If this responsibility leads to conflicts in decision-making, they must endeavour to find evidence-based solutions. Internists are committed to lifelong learning and the maintenance of the skills necessary for the provision of high standards of care. Internists are committed to the promotion and critical assessment of new medical knowledge and the implementation of scientific information and technology. Internists prioritise patient safety, improve standards of care and diminish barriers to health services.^{24,25,26}

I. Medical leadership

Internists are well versed in the unique features of the integrated nature of their profession which emphasises a multidisciplinary approach and teamwork. The internists' broad-based knowledge and skills make them well suited for leadership in the application of evidence-based and cost-effective strategies for the prevention, diagnosis and treatment of complex medical conditions.²⁷

1.4 Clinical presentations and diseases

Thus far, the curriculum has described the generic competencies required to practise internal medicine in a patient-centred manner. The definition of knowledge-based competencies is equally important. Appendix D lists the common clinical presentations and diseases that internists should be able to recognise and manage, notwithstanding the need to have solid knowledge about specific medical conditions. This knowledge is founded in undergraduate education and related basic sciences.

The clinical presentations are divided into two categories:

- Clinical presentations and diseases that each internist should be able to diagnose and treat independently and possess appropriate knowledge of the prognosis and likely response to therapy.
- Clinical presentations and diseases for which the internist should be able to initiate a diagnostic and therapeutic plan, but where specialty consultation or referral is warranted.

It is duly noted that no list will ever be finite and all the conditions and diseases that are listed are either highly prevalent or tend to present as acute medical problems. The environments in which these competencies are to be attained may range from the community and the outpatient clinic to the in-hospital and acute care setting. The list is a guide to the topics that will form the basis of assessment.

1.5 Procedures

As exemplified by the recent EBIM survey on internal medicine practice,⁵ current clinical use of procedures varies widely among countries and hospitals. The working group has placed the procedures into two categories:

- essential procedures that internists must be able to do;
- desirable procedures that internists may require supervision when doing.

Procedures that are commonly performed in more than 50% of countries have been classified as 'essential' and the other procedures as 'desirable' (see Appendix D). The question is often raised as to why internists should learn procedures during training that they may not continue to perform in their future careers. Learning such procedures adds context to internists' training and improves their ability to understand and apply the procedures in clinical practice.

1.6 Assessment

'The intended output of a competency-based programme is a health professional who can practise medicine at a defined level of proficiency, in accord with local conditions, to meet local needs' (World Health Organization, 1978).²⁸

Upon conclusion of the training programme, the proficiency of a trainee to practise as an internist should be established. To be confident that a trainee has acquired the necessary competencies, developmental progression during training should be monitored and assessed. To this end, milestones and linked entrustable professional activities (EPAs) are provided to guide decisions about which professional activities have become entrustable during and at the completion of training. Such decisions are based on multiple (specific and observable) workplace-based assessments carried out using a range of assessment tools over time; the admission of a patient to an acute medical unit is an example of a particularly important milestone in the progression of a trainee towards independence that can be assessed with an EPA.

A. Milestones

Milestones will be used to mark the progression of competence from the onset of medical training through to advanced practice¹³. Milestones reflect the expected ability of a health professional at a given stage of expertise and provide clearly defined targets to guide authentic learning and assessment. Milestones serve as a framework to inform and guide the development of the curriculum, the choice of assessment methods and instruments, and assessment by the supervising body.

The milestones of internal medicine are a learning roadmap, a 'palette' of competency statements to be embedded in the local curriculum. Each milestone is framed as an observable behaviour to facilitate criteria-based assessments of competence. The milestones must be set in a clinical context to make them meaningful and should, therefore, be mapped to the purpose and objectives of each rotation. This approach enables trainees to focus their learning activities more effectively. It enables assessors (and training programme directors) to know when a trainee has achieved a given milestone or a set of milestones and is truly ready to move on to the next stage of development.

It is not anticipated that each and every one of these milestones will be used explicitly for every trainee over the course of his or her development. In addition, milestones do not define the complete spectrum of internal medicine as a specialty. Rather, they are key elements of a larger ensemble of clinical competence. Substantial professional judgement, on the part of the supervising body, is still required to assess a trainee's overall fitness to practice.

Milestones for internal medicine years 2 and 5^{iv} are provided in Appendix E. After completing 2 years of an internal medicine training programme, the trainee should have achieved competencies in the basic areas of internal medicine as defined by the milestones of year 2 and the linked EPAs. This important stage of the training process also represents the completion of the common trunk for trainees in other medical specialties.

The end of year 5 concludes the minimum duration of a training programme in internal medicine. At this stage, the trainee should have achieved the competencies of an internist as defined by the milestones of year 5 and should be entrusted according to the linked end-of-training EPAs.

B. Entrustable professional activities

EPAs relate to competencies in a physician's everyday work²⁹. They consist of daily professional activities, namely a set of tasks that internists perform in their clinical role, which lead to an outcome that can be observed, e.g. running an outpatient diabetic clinic or taking care of a specific group of patients in a ward. The complexity of these activities requires an integration of knowledge, skills and attitudes across (several) competency domains. The assessment system is then tailored towards measuring the entrustment of specific internal medicine activities.

The following criteria are suggested for EPAs:

- They are part of essential professional work.
- They require specific knowledge, skills and attitudes.
- They are generally acquired through training.
- They lead to a recognised output of professional labour.
- They are usually confined to qualified staff.
- They are independently executable within a time frame.
- They are observable and measurable with regard to the associated process and outcome.
- They lead to a conclusion (i.e. performed well or not well).
- They reflect the competencies to be acquired.

There is typically overlap in many of the curriculum milestones and, therefore, it is not necessary to choose every potential milestone when constructing an assessment for an EPA. The milestones and competencies chosen should be tailored to the specific training programme based upon the local resources, rotation structure and existing culture. More importantly, both trainees and supervisors should develop a 'shared mental model' of the desired performance through group conversations about expectations.

EPAs help to make formal entrustment decisions through direct observation of pre-determined tasks and not random aspects of performance. EPAs are summative assessments and it is necessary for trainees to be entrusted with particular EPAs as they progress through training. One should keep in mind, however, that EPAs are not set to assess every professional activity that trainees engage in; rather, they assess a representative sample of the professional activities in which trainees must attain competence.

How many entrustable professional activities should there be in the curriculum?

EPAs encompass a broad range of responsibilities that may include smaller EPAs. For a broad specialty such as internal medicine, this could mean hundreds of EPAs over the course of training. Therefore, as an example, a list of 40 comprehensive EPAs is provided, each of which can be viewed as consisting of smaller, more elementary EPAs (Appendix F).³⁰ EPAs should be identified in each (local) training programme and should represent a set of tasks that the trainee should perform during training. It is suggested that all EPAs should follow a common template (Appendix G). An example of how to build assessments for end-of-training EPAs is provided by the Alliance for Academic Internal Medicine.³¹ The total number of EPAs or sets of EPAs to be used during a training programme should be decided at a national level. A limited number, for example 12-16, of carefully selected EPAs is recommended.

^{iv} Where a specific milestone for the acquisition of a competency is not specified for a given stage, it should be assumed that the earlier milestones for that competency still apply.

2. ORGANISATION OF TRAINING

2.1 Schedule of training

According to European Union Directive 2005/36 /EC, the minimum requirement for training, in order to be recognised as an internist, is 5 years.

A. The common trunk in internal medicine

As already mentioned, internal medicine is a core medical specialty that forms the foundation of many other medical specialties, and in accordance with the aforementioned Chapter 6 (amended in 2008) of the Charter on Training of Medical Specialists in the European Community, the following schedule has been agreed. At least 2 years of continuous common trunk training in internal medicine — in the first 2 years of a postgraduate training programme — is essential to give the necessary breadth of experience for physicians proceeding to train in any medical specialty that stems from internal medicine. These principles have been agreed by the specialist sections of the UEMS, the UEMS Council and the scientific societies for the different specialties in Europe.³² This duration of training in internal medicine is considered necessary in view of the demographic changes of the population, with increasing numbers of elderly patients affected by multiple conditions. Trainees who complete a common trunk in internal medicine followed by training in another specialty will qualify for certification in only that specialty.

The first 2 years of training in internal medicine and the common trunk for other specialties arising from internal medicine are essentially the same, and, preferably, will not involve any training in the chosen (final) specialty, if applicable.

B. Dual certification in internal medicine and another specialty related to internal medicine

In order to attain certification in both internal medicine and another internal medicine-related specialty (known as dual certification), a minimum duration of 5 years postgraduate training in internal medicine is required. Parts of the training for both specialties can occur concurrently, which may shorten the total duration of training to 7 or 8 years. This is based on exemptions from some of the training requirements in national legislation, according to Directive 2013/55/EU, amending Annex V of Directive 2005/36/EC on the recognition of professional qualifications. However, required competencies must be achieved before the completion of training.

2.2 Training programme

Training in internal medicine and other related medical specialties comprises a 2-year common trunk followed by a minimum period of 3 years to become certified in internal medicine. The aim of the common trunk, as defined by the corresponding milestones, is to ensure that the necessary knowledge and skills for the diagnosis and treatment of common medical problems and the management of acute medical emergencies are obtained. The minimum duration proposed for the rotations of the common trunk is 4 months.

The following is an outline of a typical 24-month common-trunk programme in internal medicine (the order and the specific nature of the rotations is neither prescriptive nor exhaustive):

- 6 months in an emergency ward or an acute medical unit
- 4 months in an intensive care unit or high-dependency care unit
- 6 months in ambulatory care (outpatients and/or day care)
- 8 months in an inpatient internal medicine service (which may include, if necessary, rotations in different specialties, preferably excluding the specialty of final choice, if applicable)

The following 3 years of training in internal medicine is organised into 4- to 6-month rotations. All medical specialties within the scope of practice of internal medicine are eligible for inclusion. The training should comprise different settings depending on the local organisation of health services and may include any combination of in-hospital care, emergency care, outpatient clinics and community health services. In addition, research or medical education and participation in exchange programmes can be considered, but these are not mandatory.

The individualised training programme should be mutually agreed upon by the trainee and the training programme director.

2.3 The assessment system and the entrustment process

The purpose of the assessment system is to facilitate learning by providing formative feedback, in order to drive the training process by identifying which areas the trainees should focus on to improve their performance³³. The assessment system should provide robust evidence that trainees meet the training requirements detailed in the curriculum.

The assessment and documentation of skills comprises knowledge-based assessments, workplace-based assessments and a logbook.

A portfolio is used to document the achievements and the progress of the trainee throughout the training period.³⁴ Progress is guided by the milestones reached and the linked EPAs. Twice a year, the progress of trainees is monitored by a synthesis of assessments (summative feedback) obtained during rotations to ensure that enabling competencies are acquired at the desired stage and are sustained and developed further through subsequent rotations.

To entrust a clinical activity, as described in an EPA, the educational supervisor draws on all the available data regarding a trainee's competence in that particular task, including his or her performance in relevant workplace-based assessments and information from other staff or sources (multisource feedback).

A. Workplace-based assessments

To ensure a broad evidence base, a minimum of three workplace-based assessments must be used to assess each EPA. This does not mean that a trainee must complete three workplace-based assessments on the same activity as that of the EPA. Training environments are clinically diverse, so workplace-based assessments on any aspect of a task relevant for a particular EPA but linked to another clinical activity may be extrapolated and therefore valid for that EPA.

Workplace-based assessments include:

- case-based discussion
- observed clinical activity
 - patient encounters (mini-clinical evaluation exercise (Mini-CEX))
 - medical record review
 - handover
 - morning report
 - on-call service
 - ward rounds
 - case presentation (grand rounds, multidisciplinary meeting, for example oncology)
 - direct observation of procedural skills (DOPS);
 - critical appraisal
 - journal club
 - scientific meeting

Other types of assessments that may inform the entrustment process could include:

- professional presentation:
 - critical appraisal
 - journal club
 - scientific meeting
- '360 degree' feedback (multisource feedback)
- objective structured clinical examinations (OSCE)

The degree of supervision required (see below) determines whether or not to entrust a trainee. Entrustment is awarded when the assessor determines that the trainee can perform the EPA without direct supervision, i.e. level 4. The entrustment of professional activities is documented in a portfolio.

The levels of supervision are:

1. Observation but no execution, even with direct supervision;
2. Execution with direct, proactive supervision;
3. Execution with reactive supervision, i.e. on request and quickly available;
4. Supervision at a distance and/or post hoc;
5. Supervision provided by the trainee to more junior colleagues.

Conversely, entrustment concerns are reflected by 'increased oversight'. This is a general strategy supervisors frequently use to manage concerns if patient safety is at risk. Oversight may include double-checking or monitoring more closely the work of trainees, or, in extreme cases, assuming direct control over patient care.³⁵ Supervision levels other than those previously mentioned are admissible, if they are comparable and their compatibility is defined.

B. Clinical examinations

The assessments of clinical skills at years 2 and 5 of training should be covered by the EPAs, but each national authority should decide whether or not a formal clinical examination should be part of the qualification process.

C. Knowledge-based assessment

During the whole training period, the trainee has to undertake at least two knowledge-based assessments on all topics relevant to internal medicine (haematology, oncology, infectious diseases, gastroenterology, acute medicine, etc.); there will be one examination at the end of year 2 and one in the final year of the training programme. The type of examination used is up to each national authority.

D. European diploma in internal medicine

Other specialty boards have successfully established European examinations that are accepted as requirements for certification or as equivalent to requirements for certification. It is anticipated that a European diploma in internal medicine will be developed in due course following the introduction of this curriculum.

E. Re-certification

At present, re-certification follows the rules set by each national authority. In the future, general rules applicable to all European countries should be agreed.

2.4 Governance

Each national competent authority should:

- Work with its internal medicine society and its doctors' professional union to provide quality assurance for training in internal medicine.
- Approve opportunities for trainees to undertake part of their training in recognised training institutions in other Member States of the European Union, as well as in countries outside the European Union;
- Consider previous training in internal medicine (or another medical specialty) in another European country in the evaluation of the total duration of training in internal medicine, and ensure that a formal assessment by the current training institution is part of this process;
- Determine a process for the selection and appointment of trainees in internal medicine; entry criteria should, at minimum, be a nationally recognised qualification, either a medical degree or the completion of compulsory foundation training;
- Implement regulations on the access to training in internal medicine in accordance with national workforce planning projections in European Union Member States;
- Ensure the close involvement of trainers, training institutions and other responsible bodies in the selection and appointment of trainees that are suitable for internal medicine in accordance with the established selection procedure;
- Ensure that this selection procedure is transparent and open to all persons who have completed an undergraduate medical degree;
- Decide whether or not an applicant meets the entry criteria for specialty training in internal medicine;
- Ensure that the assessment and certification during training is transparent, that both the trainee and the trainer have agreed to be responsible and accountable, and that there is a possibility to appeal by a defined procedure.





TRAINING REQUIREMENTS FOR TRAINERS

The director of a training programme must be certified in internal medicine, have practised internal medicine for at least 5 years after specialist certification, and possess the proper educational, organisational and leadership qualities. Ample dedicated time must be devoted to the daily management of the training programme, and adequate administrative support should also be provided. The programme director is responsible for creating a safe and prosperous learning environment.

All trainees should have an educational supervisor responsible for overseeing their education. The educational supervisor must be certified in internal medicine. He or she should meet regularly with the trainee to assess progress and professional development, ensure that there is an appropriate balance between service and training, ascertain that necessary assessments are carried out, and provide support and advice regarding professional development. Educational supervisors should be familiar with the use of modern assessment tools, how to support trainees with difficulties and how to give effective feedback, including objective setting and career advice.

All internists practising in a teaching hospital should recognise their responsibility to participate in the postgraduate training of future physicians. Clinical supervisors (trainers) should be familiar with all aspects of the internal medicine curriculum as it relates to practice within their own country, experienced in teaching, skilled in identifying and meeting the needs of trainees, and able to recognise trainees whose professional behaviours are unsatisfactory and initiate supportive measures accordingly. Teaching activities must be included in the work schedule of trainers. There should be a minimum number of internists on the staff to ensure adequate supervision of trainees. Moreover, staff policy should allow support for trainers and offer courses or workshops on the principles and practice of medical education. The policy on the appointment of trainers, supervisors and teachers must specify the expertise required and their responsibilities and duties.



TRAINING REQUIREMENTS FOR TRAINING INSTITUTIONS

The EBIM has developed guidance for the accreditation process for training centres,⁴ which is based on standards produced by the World Federation for Medical Education.³⁶

Training institutions offering postgraduate education in internal medicine should be recognised and accredited by the national authority. An organised training programme under the leadership of a programme director must be in place, and the mission and outcome objectives must be clearly defined.

Postgraduate training in internal medicine should generally be carried out in university hospitals or affiliated teaching hospitals, while part of the training rotation may take place in general hospitals and/or in the community. The teaching institution must possess the infrastructure to provide training in internal medicine. This must include a diverse and sufficiently large inpatient and outpatient service, adequate teaching staff, conference rooms and office space for trainees to ensure a proper learning environment. The training programme director and postgraduate education and training committee are responsible for the organisation and management of the training programme. Each training institution should have an internal system of medical audit or quality assurance, including a mortality review process, for reporting adverse events.

The selection and appointment of trainees should be in line with a policy established by the national competent authority, and the selection process must be transparent. The number of training positions must be decided in accordance with the resources of the training centre. The work delivered by trainees must comply with the European Working Time Directive. Part-time training should be allowed; the duration of training should be extended accordingly.

The curriculum should be delivered through a variety of learning experiences. The foundation of postgraduate education in internal medicine is practice-based training in conjunction with formal teaching sessions with the aim of integrating theory and clinical activities. The trainees should be given opportunities for self-directed learning and professional development, with the main goals and outcomes clearly outlined. For this purpose, the learning objectives and milestones should be defined according to local circumstances. There must be an appropriate balance between teaching and the service provided by trainees. The structuring of rotas and on-call schedules should be based on the needs of patients, continuity of care and the educational needs of the trainee.

There should be appropriate levels of clinical supervision throughout the training period with increasing clinical independence and responsibility. A system for support, counselling and career guidance of trainees must be in place.

The comprehensive assessment of trainees and the documentation of their progress must be integral parts of the training programme. The use of diverse assessment methods and tools is recommended (see Part I, Section 2.3, above).

At the national level, a standardised process of assessments should be in place. There should be a formal ruling on the completion of training and the fulfilment of all training requirements.

Furthermore, training centres should undergo monitoring by the national competent authority at least every 5 years, based on well-defined criteria with an emphasis on the organisation and quality of the training process, the facilities, the assessment methods and the measured outcomes, such as trainee performance and qualification. Feedback from trainers and trainees must be incorporated in such training programme reviews.

In Europe, a training centre can be recognised by the EBIM if the centre complies with the following:

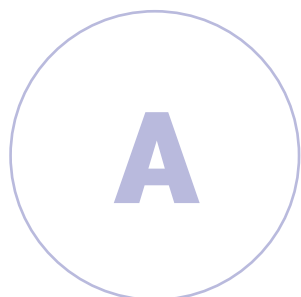
- It must be recognised by the national competent authority as a formal training centre in medicine in that country.
- It must have a training programme that meets the requirements of the European Curriculum of Internal Medicine described in this document.
- It must submit a 5-yearly self-evaluation of the training programme in accordance with certification guidelines (to be developed).
- It must submit a description of the training programme and its assessment system for approval by the EBIM.

References

1. Epstein RM, Hundert EM. Defining and assessing professional competence. *JAMA* 2002;287:226–35. <https://doi.org/10.1001/jama.287.2.226>.
2. Palsson R, Kellett J, Lindgren S, Merino J, Semple C, Sereni D; for the EFIM/UEMS Working Group on Competencies in Internal Medicine in Europe. Core competencies of the European internist: a discussion paper. *Eur J Intern Med* 2007;18:104–8.
3. Duckitt R, Tanriover MD, Bosanka L, Dagna L, Vardi M. The European Diploma of Internal Medicine — perspectives on the exam from across Europe. *Eur J Intern Med* 2010;21:46–7.
4. Semple C, Gans R, Palsson R; for the European Board of Internal Medicine. European Board guidance for training centres in internal medicine. *Eur J Intern Med* 2010;21:e1–6. <https://doi.org/10.1016/j.ejim.2009.11.009>.
5. Kramer MH, Akalin E, Alvarez de Mon Soto M, Bitterman H, Ferreira F, Higgins C, et al.; for the Working Group on Professional Issues in Internal Medicine. Internal medicine in Europe: how to cope with the future? An official EFIM strategy document. *Eur J Intern Med* 2010;21:173–5. <https://doi.org/10.1016/j.ejim.2010.03.007>.
6. Cranston M, Semple C, Duckitt R, Vardi M, Lindgren S, Davidson C, et al.; for the European Board of Internal Medicine Competencies Working Group. The practice of internal medicine in Europe: organisation, clinical conditions and procedures. *Eur J Intern Med* 2013;24:627–32. <https://doi.org/10.1016/j.ejim.2013.08.005>.
7. Cranston M, Slee-Valentijn M, Davidson C, Lindgren S, Semple C, Palsson R; for the European Board of Internal Medicine Competencies Working Group. Postgraduate education in internal medicine in Europe. *Eur J Intern Med* 2013;24:633–8. <https://doi.org/10.1016/j.ejim.2013.08.006>.
8. Kramer MH, Bauer W, Dicker D, Durusu-Tanriover M, Ferreira F, Rigby SP, et al.; for the Working Group on Professional Issues, European Federation of Internal Medicine. The changing face of internal medicine: patient centred care. *Eur J Intern Med* 2014;25:125–7. <https://doi.org/10.1016/j.ejim.2013.11.013>.
9. van der Heide I, Snoeijs S, Melchiorre MG, Quattrini S, Boerma W, Schellevis F, et al.; on behalf of the ICARE4EU project team. Innovating care for people with multiple chronic conditions in Europe: an overview. ICARE4EU; 2015. Available at: <http://www.icare4eu.org>. Accessed 5 September 2016.
10. https://ec.europa.eu/health/major_chronic_diseases/diseases/ageing_related_diseases_en#fragmento. Accessed 10 May 2016.
11. Bowen JL. Educational strategies to promote clinical diagnostic reasoning. *N Engl J Med* 2006;355:2217–25.
12. Sniderman AD, LaChapelle KJ, Rachon NA, Furberg CD. The necessity for clinical reasoning in the era of evidence-based medicine. *Mayo Clin Proc* 2013;88:1108–14.
13. Frank JR, Snell LS, Sherbino J, editors. The Draft CanMEDS 2015 Physician Competency Framework — Series I. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2014. Available at: http://www.royalcollege.ca/portal/page/portal/rc/common/documents/canmeds/framework/framework_series_1_e.pdf. Accessed 1 July 2016.
14. Frank JR, Snell LS, Sherbino J, editors. The Draft CanMEDS 2015 Physician Competency Framework — Series II. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2014. Available at: http://www.royalcollege.ca/portal/page/portal/rc/common/documents/canmeds/framework/canmeds2015_framework_series_II_e.pdf. Accessed 1 July 2016.
15. Wachter RM, Bell D. Renaissance of hospital generalists. *BMJ* 2012;344:e652. <https://doi.org/10.1136/bmj.e652>.
16. Stavert RR, Lott JP. The bystander effect in medical care. *N Engl J Med* 2013;368:8–9.
17. Barry MJ, Edgman-Levitan S. Shared decision making — pinnacle of patient-centered care. *N Engl J Med* 2012;366:780–1.

18. Reuben DB, Tinetti ME. Goal-oriented patient care — an alternative health outcomes paradigm. *N Engl J Med* 2012;366:777–9.
19. Bardes CL. Defining 'patient-centered medicine'. *N Engl J Med* 2012;366:782–3.
20. Interprofessional Education Collaborative Expert Panel. Core competencies for interprofessional collaborative practice. Washington, DC: Interprofessional Education Collaborative; 2011. Available at: https://www.aamc.org/download/186750/data/core_competencies.pdf. Accessed 10 July 2016.
21. Royal College of Physicians, Royal College of General Practitioners. Joint statement on integrated care. London: Royal College of Physicians and Royal College of General Practitioners; 2014. Available at: <https://www.rcplondon.ac.uk/news/gps-and-physicians-want-care-based-patients-needs-rather-buildings>. Accessed 10 August 2016.
22. Gleeson H, McCartney S, Lidstone V. "Everybody's business": transition and the role of adult physicians. *Clin Med* 2012;12:561–6.
23. Future Hospital Commission. Future hospital: caring for medical patients. A Report from the Future Hospital Commission to the Royal College of Physicians. London: Royal College of Physicians; 2013.
24. Institute of Medicine. Best Care at Lower Cost: The Path to Continuously Learning Health Care in America. Washington, DC: The National Academies Press; 2013. <https://doi.org/10.17226/13444>.
25. Institute of Medicine. The Richard and Hinda Rosenthal Lecture 2011: New Frontiers in Patient Safety. Washington, DC: The National Academies Press; 2011. <https://doi.org/10.17226/13217>.
26. Redberg RF. Getting to best care at lower cost. *JAMA Intern Med* 2013;173:91–2.
27. NHS Institute for Innovation and Improvement, Academy of Medical Royal Colleges. Medical Leadership Competency Framework: Enhancing engagement in medical leadership, 3rd ed. Coventry: NHS Institute for Innovation and Improvement; 2010.
28. McGaghie WC, Miller GE, Sajid AW, Telder TV. Competency-based curriculum development in medical education: an introduction. (Public Health Paper No. 68.). Geneva, Switzerland: World Health Organization; 1978.
29. Ten Cate O. Nuts and bolts of entrustable professional activities. *J Grad Med Educ* 2013;5:157–8.
30. Hauer KE, Kohlwes J, Cornett P, Hollander H, Ten Cate O, Ranji SR, et al. Identifying entrustable professional activities in internal medicine training. *J Grad Med Educ* 2013;5:54–9.
31. Alliance for Academic Internal Medicine. Internal medicine end of training EPAs; 2012. Available at: <http://connect.im.org/p/cm/ld/fid-639>. Accessed 10 September 2016.
32. Hillen HF. Education and training in internal medicine in Europe. *Postgrad Med J* 2001;77:727–31.
33. Epstein RM. Assessment in medical education. *N Engl J Med* 2007;356:387–96.
34. Gans RO. Mentoring with a formative portfolio: a case for reflection as a separate competency role. *Med Teach* 2009;31:883–4. <https://doi.org/10.3109/01421590903188737>.
35. Kennedy TJ, Lingard L, Baker GR, Kitchen L, Regehr G. Clinical oversight: conceptualizing the relationship between supervision and safety. *J Gen Int Med* 2007;22:1080–5.
36. World Federation for Medical Education. Global standards for quality improvement: postgraduate medical education. Copenhagen: WFME; 2003. Available at: <http://www.wfme.org>. Accessed 20 August 2016.

APPENDIX



MEMBERS OF THE EUROPEAN BOARD OF INTERNAL MEDICINE CURRICULUM WORKING GROUP

Professor Reinold OB Gans (Chair)

President of the UEMS Section of Internal Medicine; Vice-President of EBIM; Head and Chairman of Medicine, University Hospital Groningen, University Medical Center Groningen, the Netherlands; Chairman of Program Directors in Internal Medicine in the Netherlands.

Dr Werner Bauer

President of EBIM; Member of the UEMS Section of Internal Medicine; past President of EFIM; President of the Swiss Institute of Education (SIWF); Lecturer in Internal Medicine, University of Zurich Medical School, Zurich, Switzerland.

Professor Ion Bruckner

President of the Romanian Society of internal Medicine; Romanian Representative to EFIM.

Professor Maria Domenica Cappellini

Past President of EFIM; Professor and Chief, Department of Internal Medicine, University of Milan, Milan, Italy.

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Member of the EFIM Young Internists Assembly; Consultant in Acute Medicine, Hinchingbrooke Hospital, Huntingdon, UK.

Dr Jan Willem F Elte

Associate Secretary of EFIM; Past Secretary General of EFIM; Past Treasurer of the Netherlands Association of Internal Medicine; past Member of the UEMS Section of Endocrinology/European Board of Endocrinology.

Dr Claire Higgins

Secretary of the UEMS Section of Internal Medicine; Clinical Director and Consultant, Northwest London Hospitals NHS Trust, UK; Director of Medical Education, North West London NHS Trust, UK.

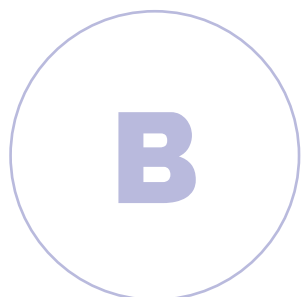
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APPENDIX



LIST OF COUNTRIES AFFILIATED TO EFIM AND/OR UEMS

Countries that are full EFIM/UEMS members

Algeria	Lithuania
Austria	Malta
Belgium	Netherlands
Cyprus	Norway
Czech Republic	Poland
Estonia	Portugal
Finland	Romania
France	Serbia
Germany	Slovakia
Greece	Slovenia
Iceland	Spain
Ireland	Sweden
Italy	Switzerland
Latvia	United Kingdom

Countries that are not full members of both EFIM and UEMS

	EFIM	UEMS	EFIM associate member	UEMS associate member	UEMS observer
Bulgaria		•			
Armenia				•	
Croatia		•			
Luxembourg		•			
Denmark		•			
Ukraine				•	
Serbia	•				•
Russia	•				•
Israel	•			•	
Turkey	•			•	
Algeria			•		
Morocco			•		•
Tunisia			•		•

APPENDIX



THE CANMEDS COMPETENCY FRAMEWORK ADAPTED FOR INTERNAL MEDICINE

C1 Medical expert

As medical experts, internists integrate all of the CanMEDS roles and apply medical knowledge, clinical skills and a professional attitude when providing high-quality and safe patient-centred care. The medical expert is the central role of the CanMEDS Framework and defines the internist's clinical scope of practice.

As medical experts, internists are able to:

- 1. Practise medicine within the clinical scope of the practice and expertise of internal medicine:**
 - 1.1 Demonstrate a commitment to the high-quality care of their patients;
 - 1.2 Integrate the CanMEDS intrinsic roles into their practice of medicine;
 - 1.3 Apply knowledge of the clinical and biomedical sciences relevant to internal medicine;
 - 1.4 Perform appropriately timed consultations, presenting well-documented assessments and recommendations in written and/or oral form;
 - 1.5 Carry out professional duties in the face of multiple, competing demands;
 - 1.6 Recognise and respond to the complexity, uncertainty and ambiguity inherent in medical practice.
- 2. Perform a patient-centred clinical assessment and establish management plans:**
 - 2.1 Identify and prioritise the issues to be addressed in a patient encounter;
 - 2.2 Elicit a history, perform a physical examination, select investigations and interpret their results for the purpose of diagnosis and management, disease prevention and health promotion;
 - 2.3 Establish goals of care with patients and their families, which may include slowing disease progression, achieving recovery, improving functions, treating symptoms and palliation;
 - 2.4 Establish a patient-centred management plan.
- 3. Plan and perform interventions for the purpose of assessment and/or management:**
 - 3.1 Determine indicated intervention(s) for the purpose of assessment and/or management;
 - 3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale behind, the options discussed;
 - 3.3 Prioritise interventions, taking into account clinical urgency, the potential for deterioration and the available resources;
 - 3.4 Develop and implement a plan, incorporating the degree of clinical uncertainty and the expertise of team members individually and as a unit;
 - 3.5 Perform procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances;
 - 3.6 Establish and implement a plan for both pre- and post-procedure care.
- 4. Establish plans for timely follow-up and appropriate consultation:**
 - 4.1 Establish the roles of the patient and all healthcare team members when following up results of investigations, the response to treatment and consultations, and ensure that the agreed follow-up plan occurs;
 - 4.2 Recognise when care should be transferred to another physician or healthcare provider.
- 5. Actively participate, as an individual and as a member of a team, in the continuous improvement of healthcare quality and patient safety:**
 - 5.1 Recognise and respond to adverse events and near misses;
 - 5.2 Seek opportunities to provide the best standard of care;
 - 5.3 Contribute to a culture that promotes continuous improvement in the quality of healthcare and patient safety;
 - 5.4 Describe how human and system factors influence decision-making and the provision of patient care;
 - 5.5 Engage patients and their families in promoting continuous improvements in the quality of healthcare and patient safety.

C2 Communicator

As communicators, internists form relationships with patients and their families that facilitate the gathering and sharing of the information essential for exemplary healthcare.

As communicators, internists are able to:

- 1. Establish professional therapeutic relationships with patients and their families:**
 - 1.1 Communicate using a patient-centred approach that encourages patient trust and autonomy and is

- characterised by empathy and respect;
 - 1.2 Optimise the physical environment for the comfort, dignity, privacy, engagement and safety of the patient;
 - 1.3 Recognise when the values, biases or perspectives of patients, physicians or other healthcare providers may affect the quality of care, and modify the approach to the patient appropriately;
 - 1.4 Respond appropriately to patients' non-verbal communication and display appropriate non-verbal behaviours to enhance communication with patients;
 - 1.5 Manage emotionally charged conversations and conflicts;
 - 1.6 Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances.
- 2. Elicit and synthesise accurate and relevant information, incorporating the perspectives of patients and their families:**
- 2.1 Use effective patient-centred interviewing skills to identify and gather relevant biomedical and psychosocial information;
 - 2.2 Manage the flow of a physician–patient encounter;
 - 2.3 Enquire about and explore the patient's beliefs, values, preferences, context, expectations and outcomes with regard to his or her state of health;
 - 2.4 Seek and synthesise, with the patient's consent, relevant information from other sources, including the patient's family.
- 3. Engage patients and their families in developing plans that reflect the patients' healthcare needs and expected outcomes:**
- 3.1 Provide explanations that are clear, accurate and adapted to the patient's needs and ability to understand the information;
 - 3.2 Share information that is timely, accurate and transparent with regard to the patient's health status, care and expected outcome;
 - 3.3 Engage patients in a way that is respectful, non-judgmental and culturally safe;
 - 3.4 Help patients and their families to identify and make use of information and communication technologies to support their care and manage their health;
 - 3.5 Use counselling skills and decision aids to help patients make informed choices regarding their care;
 - 3.6 Disclose adverse events to patients and/or their families accurately and appropriately.
- 4. Document and share written and electronic information about the medical encounter to optimise clinical decision-making, patient safety, confidentiality and privacy:**
- 4.1 Document clinical encounters in an accurate, complete, timely and accessible manner that complies with legal and regulatory requirements;
 - 4.2 Communicate effectively using electronic medical records or other digital technologies;
 - 4.3 Share information with patients and appropriate others in a manner that respects patient privacy and confidentiality.

C3 Collaborator

As collaborators, internists work effectively with other healthcare professionals to provide the highest possible standard of patient care.

As collaborators, internists are able to:

- 1. Work effectively with other physicians and healthcare professionals:**
 - 1.1 Establish and maintain healthy working relationships in multidisciplinary healthcare teams to support collaborative care;
 - 1.2 Negotiate overlapping and shared responsibilities in multidisciplinary healthcare teams for the episodic or ongoing care of patients;
 - 1.3 Engage in effective and respectful shared decision-making with other care providers.
- 2. Work in multidisciplinary healthcare teams to prevent misunderstandings, manage differences and resolve conflicts:**
 - 2.1 Demonstrate a respectful attitude towards other colleagues and members of a multidisciplinary healthcare team;
 - 2.2 Work with others to prevent conflicts;

- 2.3 Use collaborative skills to resolve conflicts;
- 2.4 Respect differences, lack of understanding, and the limitations of others;
- 2.5 Recognise one's own differences, lack of understanding and limitations that may contribute tension among colleagues in multidisciplinary healthcare teams;
- 2.6 Reflect on objectives of the multidisciplinary healthcare team.

3. Effectively and safely transfer care to another appropriate healthcare professional:

- 3.1 Demonstrate effective and safe handover during the transfer of a patient to a different healthcare setting or level of care;
- 3.2 Demonstrate effective and safe handover during the transfer of responsibility for care.

C4 Leader

As leaders, internists develop, in collaboration with other healthcare leaders, a vision of a high-quality healthcare system and take responsibility for effecting change to enable the achievement of that vision.

As leaders, internists are able to:

1. Contribute to the improvement of healthcare delivery in teams, organisations and systems:

- 1.1 Demonstrate personal responsibility for improving patient care;
- 1.2 Contribute to quality improvement and patient safety using the best available knowledge and practices;
- 1.3 Engage others to work collaboratively to improve systems of patient care;
- 1.4 Use and adapt systems to learn from adverse events and near misses;
- 1.5 Use health informatics to improve the quality of patient care and optimise patient safety.

2. Engage in the stewardship of healthcare resources:

- 2.1 Allocate healthcare resources for optimal patient care;
- 2.2 Apply evidence and management processes to achieve cost-appropriate care;
- 2.3 Contribute to strategies that improve the value of healthcare delivery.

3. Demonstrate leadership in professional practice:

- 3.1 Develop leadership skills;
- 3.2 Facilitate change in healthcare to enhance services and outcomes;
- 3.3 Design and organise elements of healthcare delivery

4. Manage their practice and career:

- 4.1 Set priorities and manage time to balance practice and personal life;
- 4.2 Manage career planning, finances and human resources in a medical practice;
- 4.3 Implement processes to ensure personal improvements in practice.

C5 Health advocate

As health advocates, internists responsibly apply their expertise and influence to improve health through working with the patients, communities or populations they serve to determine and understand their needs, to develop partnerships, to speak on behalf of others when needed and to support the mobilisation of resources to effect change.

As health advocates, internists are able to:

1. Respond to an individual patient's complex health needs by working with the patient within and beyond the clinical environment:

- 1.1 Work with patients to address factors that affect their health;
- 1.2 Work with patients and their families to increase their opportunities to adopt healthy behaviours;
- 1.3 Consider disease prevention and monitoring, and the promotion of activities beneficial to health when interacting with individual patients.

2. Respond to the needs of the community or patient population they serve by working with them to achieve system-level change:

- 2.1 Use a process of continuous quality improvement that incorporates disease prevention and monitoring, and the promotion of activities beneficial to health;

- 2.2 Work with a community or population to identify the factors that affect their health;
- 2.3 Participate in a process to improve health in the community or population they serve.

C6 Scholars

As scholars, internists demonstrate a lifelong commitment to excellence in practice through continuous learning, the teaching of others, the evaluation of evidence and other resources, and contributions to scholarship.

As scholars, internists are able to:

- 1. Engage in continuous improvement and professional development through ongoing learning:**
 - 1.1 Develop, monitor and revise a personal learning plan to enhance professional practice;
 - 1.2 Regularly analyse their performance using various data and other sources to identify opportunities for learning and improvement;
 - 1.3 Engage in collaborative learning to continuously improve personal practice and to contribute to collective improvements in practice.
- 2. Facilitate the learning of students, trainees, other healthcare professionals, the public and other stakeholders:**
 - 2.1 Recognise the power of role-modelling and the impact of the hidden curriculum on learners;
 - 2.2 Promote a safe learning environment;
 - 2.3 Ensure that patient safety is maintained when learners are involved;
 - 2.4 Collaboratively identify the learning needs of others and prioritise learning outcomes;
 - 2.5 Demonstrate effective teaching to facilitate learning;
 - 2.6 Seek and provide meaningful feedback;
 - 2.7 Use assessment tools and practices that are appropriate for a given learning context.
- 3. Integrate best available evidence, contextualised to specific situations, into real-time decision-making:**
 - 3.1 Recognise uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that can address them;
 - 3.2 Demonstrate proficiency in identifying, selecting, and navigating pre-appraised resources;
 - 3.3 Integrate evidence into decision-making.
- 4. Critically evaluate the integrity, reliability and applicability of health-related research and literature:**
 - 4.1 For a given professional scenario, formulate scholarly questions using a structure that encompasses the patient or population, intervention, comparison and outcome (PICO model);
 - 4.2 Identify one or more studies or scholarly sources that shed light on a given professional question;
 - 4.3 Interpret study findings, including a discussion and critique of their relevance to professional practice;
 - 4.4 Determine the validity and risk of bias in a wide range of scholarly sources;
 - 4.5 Describe study results in both quantitative and qualitative terms;
 - 4.6 Evaluate the applicability (external validity or generalisability) of evidence from a wide range of biomedical research products;
 - 4.7 Translate the findings of studies into professional practice, and discuss the barriers to and facilitators for achieving this;
 - 4.8 Identify and use automatic information-delivery services that highlight new evidence appropriate to their scope of professional practice.
- 5. Contribute to the dissemination and/or creation of knowledge and practices applicable to health:**
 - 5.1 Describe the principles of research and scholarly inquiry and their roles in contemporary healthcare;
 - 5.2 Discuss and interpret the ethical principles applicable to medical and health-related research;
 - 5.3 Discuss the roles and responsibilities of researchers, both principal investigators and research collaborators, and how they differ from clinical and other practice roles and responsibilities;
 - 5.4 Pose medically and scientifically relevant, appropriately constructed questions that warrant scholarly investigation;
 - 5.5 Discuss and critique the possible methods for addressing a given scholarly question;
 - 5.6 Summarise and communicate to professional and lay audiences, including patients and their families, the findings of relevant studies and reports.

C7 Professional

As professionals, internists are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, commitment to the profession, profession-led regulation and maintenance of personal health.

As professionals, internists are able to:

1. Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards:

- 1.1 Demonstrate appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, commitment, compassion, respect, altruism, appreciation of diversity and maintenance of confidentiality;
- 1.2 Demonstrate a commitment to excellence in all aspects of practice and to active participation in collaborative care;
- 1.3 Recognise and respond to ethical issues encountered in practice;
- 1.4 Recognise and manage conflicts of interest;
- 1.5 Demonstrate professional behaviours in the use of technology-based communication.

2. Demonstrate a commitment to society by recognising and responding to the social contract in healthcare:

- 2.1 Demonstrate a commitment to the promotion of the public good in healthcare, including stewardship of resources;
- 2.2 Demonstrate a commitment to maintaining and enhancing competence;
- 2.3 Demonstrate a commitment to quality improvement and patient safety;
- 2.4 Demonstrate accountability to patients, society and the profession by recognising and responding to the societal expectations of the profession.

3. Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation:

- 3.1 Fulfil and adhere to the professional and ethical codes, standards of practice and laws governing practice;
- 3.2 Recognise and respond to unprofessional and unethical behaviours of others;
- 3.3 Commit to participating in peer assessment and standard-setting;
- 3.4 Promote a culture of collegiality and respect, and maintain professional relationships.

4. Demonstrate a commitment to physician health and well-being to foster optimal patient care:

- 4.1 Demonstrate self-awareness and effectively manage influences on personal well-being and professional performance;
- 4.2 Manage personal and professional demands for a sustainable practice through the physician life cycle;
- 4.3 Promote a culture that recognises, supports and responds effectively to colleagues in need.

APPENDIX



CLINICAL PRESENTATIONS, DISEASES AND PROCEDURESⁱ

D1 Clinical presentations and diseasesⁱⁱ

Evaluation of patients with emergency presentations

All internists should be able to recognise and initiate the management of serious and/or potentially life-threatening medical emergencies. Below is a compilation of commonly encountered medical emergencies, but this list is neither exhaustive nor complete. While the purpose of this list is to guide trainees, the approach to each condition will depend upon the severity, the context of the patient and the available access to specialist advice and services.

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
Acute allergic reactions	Acute allergic reactions, including anaphylaxis	
Acute coronary syndromes		Acute coronary syndrome/myocardial infarction
Arrhythmias	Supraventricular tachycardia	Ventricular tachycardia
Abdominal aortic aneurysm/ aortic dissection		Imminent rupture of abdominal aortic aneurysm or suspected aortic dissection
Arthritis	Gout and pseudogout	Septic arthritis
Cardiopulmonary arrest	Advanced cardiac life support	
Hypertensive crisis		Hypertensive crisis
Meningitis		Meningitis
Sepsis	Sepsis	Recognise the need for consultation of intensive care, intervention (surgery, drainage)
Other infections requiring emergency treatment	Pyelonephritis (in males, consider referral to specialist)	Septic arthritis
	Pneumonia	Endocarditis
	Gastroenteritis	Cholangitis
	Spontaneous bacterial peritonitis	
Gastrointestinal bleeding	Haematemesis, melaena, haematochezia	Endoscopic diagnosis and intervention depending on training
Hypotension and shock	Hypovolaemic shock	Cardiogenic shock
	Distributive shock (sepsis, anaphylaxis)	Obstructive shock (cardiac tamponade, pulmonary embolism)
	Addisonian crisis	
Stroke		Transient ischaemic attack/stroke
Seizures		Seizures
Syncope	Neurocardiogenic syncope	Rhythm and conduction disturbances
	Orthostatic syncope	Myocardial infarction
	Micturition or defecation syncope	Cardiac tamponade
	Medication-induced syncope	Aortic stenosis
	Hypoglycaemia	Carotid sinus dysfunction
	Pulmonary embolism	Vertebro-basilar insufficiency
	Hyperventilation, panic disorder	Pulmonary hypertension
	Psychogenic syncope	
Renal failure	Acute kidney injury (stages 1 and 2)	Acute kidney injury (stage 3)
		Chronic kidney disease (stages 4 and 5)
		Intoxications that need specific interventions
Serious acid–base and electrolyte disorders	Serious acid–base and electrolyte disorders	
Diabetic ketoacidosis and hyperosmolar hyperglycaemic state	Hyperglycaemia	Diabetic ketoacidosis and hyperosmolar hyperglycaemic state
Sickle cell crisis	Sickle cell crisis	
Pulmonary embolism	Pulmonary embolism	Obstructive shock due to pulmonary embolism

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
Hypoxaemia or acute respiratory distress	Heart failure	Hypoxaemia or acute respiratory distress
	Asthma	
	Exacerbation of chronic obstructive pulmonary disease	
	Pneumothorax (tension)	Pneumothorax
Stupor or coma	Intoxication due to alcohol or substance use	Intoxication requiring specific intervention (mechanical ventilation, haemodialysis)
		Acid-base and electrolyte disorders
	Hypoglycaemia	Diabetic ketoacidosis, hyperosmolar hyperglycaemic state
		Hypothyroidism
		Hepatic encephalopathy
	Sepsis	Meningitis
		Encephalitis
	Postictal state	Status epilepticus
		Stroke
		Subarachnoid haemorrhage
		Subdural hematoma
		Cerebral venous sinus thrombosis
		Hypercapnia
		Trauma
		Psychiatric disorder
Acute abdominal pain ⁱⁱⁱ	Pancreatitis	Complicated pancreatitis
	Diverticulitis	Complicated diverticulitis
		Peritonitis
		Ileus
Acute liver failure		Acute liver failure
Acute kidney injury	Acute kidney injury (stages 1 and 2)	Acute kidney injury (stage 3)
Spinal cord compression		Spinal cord compression
Drug overdose or complications of misuse of drugs	Common intoxications	Breathlessness
	Intoxication, unknown	Coma
		Shock
		Renal failure
		Hepatic failure
		Rhythm and conduction disturbances
		Caustic injury
Hypothermia	Cold exposure	Severe burns, trauma
	Drugs, alcohol, toxins	Hypothalamic hypothermia
	Medications	Panhypopituitarism
	Endocrine causes	Sepsis
Hyperthermia		Thyroid storm

Evaluation of patients with common clinical presentations

All physicians/internists should be competent in performing the initial evaluation of the adult patient with common presenting features of undiagnosed conditions, followed by differential diagnosis and the generation of a tentative diagnosis. All internists should be competent in the diagnosis and management of common and important disorders that belong to internal medicine and related specialties. These include common chronic illnesses, particularly those that affect the ageing population, and common co-morbid conditions affecting patients who receive their care from either internists or other specialists.

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
Presentations with general, non-specific symptoms		
Oedema	Heart failure	Upper extremity thrombosis
	Generalised oedema (hypoalbuminemia)	Pulmonary hypertension
	Venous insufficiency	Cirrhosis or hepatic failure
	Postthrombotic syndrome	Inferior or superior vena cava syndrome
	Oedema caused by medications	Nephrotic syndrome
		Renal failure
	Idiopathic or cyclic swelling	Constrictive pericarditis
	Angioedema	Protein-losing enteropathy
		Lymphatic oedema
Fever	Upper and lower airway infection	Septic shock
	Urinary tract infection in a female	Urinary tract infection in a male
	Gastroenteritis	Central nervous system infection
	Skin infection	Pyogenic spinal infection
	Abscess	Epiglottitis, tonsillar-pharyngeal infection, complicated sinusitis
	Soft tissue infection	Osteomyelitis
	Nosocomial infection	Arthritis
	Diverticulitis	Fever in travellers, including fever associated with malaria, dengue and Ebola
	Fever in travellers	Cholangitis
	Viral infection	Infected pancreatic necrosis
		Empyema
	Pyrexia of unknown origin	Endocarditis
		Endovascular and device-related infection
		Infected prosthesis
		Tuberculosis
		Fever in systemic diseases
		Fever in immunocompromised host
		Periodic fever syndrome
		Paraneoplastic syndrome
Weight loss	Decreased caloric intake	Malignancy
	Medication related	Inflammatory bowel disease
	Increased energy expenditure	Malabsorption, including pancreatic disorders and coeliac disease
	Hyperthyroidism/thyrotoxicosis	Cardiac cachexia
		Pulmonary cachexia
		Chronic kidney disease
		Other endocrine diseases
		Neurological conditions

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
		Psychiatric and eating disorders
		Infections (viral, bacterial, fungal, parasitic)
		Systemic diseases
Weight gain	Obesity	Cushing's disease and syndrome
	Hypothyroidism	Polycystic ovary syndrome
	Medication related	Other endocrine diseases
		Neurological and psychiatric disorders
Fatigue	Chronic fatigue syndrome	Psychiatric disorders
	Medication related	Sleep disorders, obstructive sleep apnoea syndrome
	Post-infectious disease syndrome	Systemic diseases
Polyuria	Osmotic diuresis	Central diabetes insipidus
	Medication related (e.g. mannitol, lithium)	Nephrogenic diabetes insipidus
	Polyuric phase after acute kidney injury	
Pruritus	Urticaria	Liver diseases
	Medication related	Renal diseases
	Infectious diseases	Pregnancy
		Haematological diseases
		Paraneoplastic syndrome
		Autoimmune disease
		Metabolic disorders
		Psychiatric disorders
Physical symptoms in the absence of organic disease		
	Somatoform disorders	
	Functional somatic disorders	
Presentations with pain		
Chest pain	Pneumonia	Angina, acute coronary syndrome
	Pulmonary embolism	Pericarditis/myocarditis
	Pleurisy	Dissecting aortic aneurysm
	Intercostal neuralgia	Pneumothorax
	Tietze syndrome/Bornholm disease/costochondritis	Postherpetic neuropathy
	Gastro-oesophageal reflux disease	Malignancies
	Rib fracture	
Abdominal pain ^{II}	Dyspepsia	Cholecystitis
	Irritable bowel syndrome	Hepatitis, perihepatitis
	Cystitis	Chronic pancreatitis
	Chronic pyelonephritis in a female	Appendicitis
	Diseases of the abdominal wall	Complicated diverticulitis
	Gastroenteritis	Pelvic inflammatory disease
	Enterocolitis	Peritonitis
	Peptic ulcer disease	CAPD peritonitis
	Pancreatitis	Intestinal obstruction
	Diverticulitis	Acute and chronic mesenteric ischaemia
	Porphyria	Abdominal mass

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
	Familial Mediterranean fever	Inflammatory bowel disease
		Postoperative complications
		Acute surgical abdomen
		Peritoneal carcinomatosis
		C1 esterase inhibitor deficiency
Headache	Headache	
Acute back pain	Lumbago	Bone metastasis
	Spondyloarthritis	Spondylodiscitis
	Sciatica	Myeloma
		Radicular pain and radiculopathy
Limb pain and swelling	Venous thrombosis	Phlegmasia alba and cerulea dolens
	Superficial thrombophlebitis	
Chronic pain syndrome	Fibromyalgia	Complex regional pain syndrome
Presentations with organ system-specific symptoms or problems		
Cardiovascular	Atrial fibrillation	Hypertensive crisis
	Common cardiac arrhythmias	Coarctation of the aorta
		Endocrine hypertension
	Primary (essential) hypertension	Renal artery disease
	Secondary hypertension due to medications or chemicals (oral contraceptives, alcohol, enoxolone)	Obstructive sleep apnoea syndrome
	Hypertension and chronic kidney disease (stages 1-3)	Hypertension and chronic kidney disease (stages 4 and 5)
	Primary and secondary prevention	Pregnancy
	Stable angina pectoris	Neurological disorders
	Heart failure	
Respiratory	Pneumonia	Unexplained breathlessness
	Pulmonary embolism	Stridor/upper airway obstruction
	Hyperventilation	Pneumothorax
		Pulmonary hypertension
	Allergic rhinitis	Interstitial lung diseases
	Asthma	Lung cancer
	Chronic obstructive pulmonary disease	Pleural effusion
		Heart failure
		Myocardial infarction
		Pericarditis
		Thoracic cage abnormalities
		Carbon monoxide intoxication
Gastrointestinal	Functional dyspepsia	Oesophageal obstruction due to tumour
	Gastro-oesophageal reflux disease	Achalasia
	Peptic ulcer disease	Motility disorders
	Medication related	Raised intracranial pressure
	Hiccups	Benign paroxysmal positional vertigo and Meniere's disease
	Gastroenteritis	Eating disorders

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
	Steatorrhea	Intestinal obstruction
	Osmotic or secretory diarrhoea	Colon carcinoma or colon polyp
	Paradoxical diarrhoea	Inflammatory bowel disease
	Constipation	Intestinal ischaemia
		Malabsorption
		Short bowel syndrome
		Endocrine disorders
Liver	Toxic or drug-induced liver injury	Obstructive jaundice
	Haemochromatosis	Hereditary bilirubin disorders
	Alcoholic and non-alcoholic steatohepatitis	Viral hepatitis
		Autoimmune hepatitis
	Chronic liver disease (cirrhosis)	Complications of chronic liver disease
	Liver metastasis	Haemolytic jaundice
		Acute liver failure
		Lysosomal and other storage disorders of the liver
		Infiltrative disease of the liver
Blood	Anaemia of chronic disease	Bone marrow diseases
	Anaemia due to nutritional deficiency	Chronic gastrointestinal blood loss
	Pancytopenia due to medications or infections	Excessive uterine bleeding
		Anaemia of chronic kidney disease
		Haemoglobinopathies
		Haemolysis (autoimmune)
		Mesenteric thrombosis
		Renal vein thrombosis
		Portal vein thrombosis
	Bleeding due to medications (antiplatelet agents or oral anticoagulants)	Thrombocytopenia or thrombocytopathy
	Anticoagulation bridging	Thrombocytosis
		Hereditary and acquired coagulopathies
		Malignancy- or autoimmune disease-related haemostatic disorders
		Disseminated intravascular coagulation
Lymphatic system	Epstein–Barr virus infection	Human immunodeficiency virus infection
	Cytomegalovirus infection	Tuberculosis
	Bartonella henselae infection	Purulent lymphadenitis
	Toxoplasmosis	Sexually transmitted diseases
	Sarcoidosis	Goucher's disease
		Metastasis
		Lymphoproliferative diseases
		Kikuchi disease
Malignancies	Common cancers	Haemato-oncological diseases
		Complications of neoplastic diseases
Diabetes and endocrine	Types 1 and 2 diabetes	
	Cardiovascular risk management	Polycystic ovary syndrome
	Diabetic neuropathy	Insulin pump therapy

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
	Diabetic nephropathy — chronic kidney disease (stages 1-3)	Diabetic nephropathy — chronic kidney disease (stages stages 4 and 5)
	Peri-operative diabetes care	Nephrotic syndrome in diabetes
		Pregnancy in diabetes
		Diabetic foot
	Lipid disorders	
	Hypothyroidism, hyperthyroidism	
	Benign thyroid nodule	Thyroid mass
	Goitre	
	Thyroiditis	
	Obesity	Pituitary disease
	Primary and secondary osteoporosis	Pheochromocytoma and paraganglioma
		Cushing's disease
		Addison's disease
	Hirsutism (idiopathic, medication related)	Hirsutism (hormone overproduction)
	Gynaecomastia (puberty, pseudogynecomastia, medication related)	Gynaecomastia (hormone overproduction)
	Galactorrhea (pregnancy, medication related, mechanical)	Galactorrhea (prolactinoma)
Renal	Microalbuminuria	Nephrotic syndrome
	Proteinuria	Glomerulonephritis
	Haematuria	Paraproteinaemia, amyloidosis
		Hereditary renal diseases
		Medications, interstitial diseases
	Prerenal azotemia and acute kidney injury (stages 1 and 2)	Acute kidney injury (stage 3)
	Chronic kidney disease (stages 1-3)	Chronic kidney disease (stages 4 and 5)
	Infections (cystitis, pyelonephritis)	Status post kidney transplant
		Autosomal dominant polycystic kidney disease (ADPKD)
		Renal infarction
		Thrombotic thrombocytopenic purpura/haemolytic-uraemic syndrome
		Malignancy
	Lower urinary tract symptoms (LUTS)	Kidney stones
		Obstructive nephropathies
		Papillary necrosis
Musculoskeletal	Gout and pseudogout	Septic arthritis
	Fibromyalgia	Rheumatoid arthritis
	Sicca syndrome	Systemic lupus erythematosus
	Polymyalgia rheumatica, RS3PE	Scleroderma
	Giant cell arteritis	Small vessel vasculitides (granulomatosis with polyangiitis, microscopic polyangiitis, Churg–Strauss syndrome)
	Lyme disease	Polyarteritis nodosa
	Post-infectious arthritis (sexually transmitted disease, post-streptococcal infection)	Psoriatic arthritis
	Parvovirus B19 infection	Ankylosing spondylitis

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
	Osteoarthritis	Amyloidosis
	Regional and peri-articular pain syndromes (bursitis, tendinitis)	Paraneoplastic syndrome
		Charcot joint
		Haemarthrosis
Nervous system	Delirium	Central nervous system infection
	Alcohol or drug withdrawal	Cerebral vasculitis
	Hepatic encephalopathy	Stroke, sub-arachnoid haemorrhage, venous sinus thrombosis
	Hypoglycaemia	Hypertensive encephalopathy, posterior reversible encephalopathy syndrome (PRES)
	Hypoxia	Cerebral mass
	Hypercapnia	Epilepsy
	Medication related	Endocrine diseases
		Psychiatric disorders
Skin		Malignant dermatoses
		Bullous dermatoses
		Hirsutism, alopecia
		Erythema multiforme, Stevens–Johnson syndrome, toxic epidermal necrolysis
		Urticaria
		Desensitisation in drug allergy
		Vasculitides and autoimmune diseases
		Sarcoidosis
		Arterial and venous diseases
Medical problems in pregnancy		
	Physiological changes in pregnancy	Gestational hypertension, preeclampsia and eclampsia
	Chronic hypertension	Haemolysis, elevated liver enzymes and low platelets (HELLP) syndrome
	Gestational diabetes	
	Glucose intolerance	Renal disease in pregnancy
	Venous thromboembolic disease	Hyperthyroidism in pregnancy
	Pre-existing hypothyroidism	Sheehan syndrome, diabetes insipidus, pituitary adenoma
	Post-partum thyroiditis	Ovarian hyperstimulation syndrome
	Medication use in pregnancy	Post-partum cardiomyopathy
Miscellaneous medical problems		
	Presentations with multisystem clinical features	
	Presentations related to specific patient populations, e.g. migrants	
	Common genetic conditions	
	Postoperative medical problems	
Women's health issues		Breast mass
		Pelvic pain
		Abnormal vaginal bleeding
		Amenorrhoea

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
		Galactorrhea
		Vaginal discharge
Men's health issues		Lower urinary tract symptoms (LUTS)
		Erectile dysfunction
Geriatric issues		Immobility
		Memory loss (progressive)
		Mental status change
		Delirium
		Urinary incontinence
		Failure to thrive, sarcopenia
		Abuse or neglect
Patients with substance addiction	Alcohol, nicotine and/or drug addiction	Substance addiction
	Alcohol and/or drug withdrawal	
Palliative care and end-of-life care		
	Symptom palliation (pain, delirium, dyspnoea, nausea, diarrhoea, cough)	
	Nutrition	
	Cachexia	
	Agitation	
Incidental findings on imaging studies		
	Solid mass or cyst in an organ	Pituitary incidentaloma, empty sella syndrome
	Hepatomegaly, splenomegaly	Adrenal mass
	Vertebral fracture, bone abnormalities	Unexpected metastases
	Unexpected venous thrombo-embolism	
Laboratory abnormalities		
	Elevated erythrocyte sedimentation rate (ESR), C-reactive protein (CRP)	
	Liver enzyme abnormalities	
	Electrolyte or acid-base disorders	
	Paraproteinaemia	
	Elevated ferritin and/or iron saturation	
	Anaemia	
	Polycythaemia	
	Leucocytosis, leukopenia, leucocyte abnormalities	
	Thrombocytosis, thrombocytopenia	
	Dyslipidaemia	
	Elevated serum creatinine, urinary abnormalities	
	Abnormal coagulation	
	Abnormal thyroid function tests	

D2 Specific knowledge domains

Knowledge and skills in several important subjects constitute fundamental features of internal medicine practice. The internal medicine trainee must achieve competence in the topics listed below.

Clinical pharmacology

Many patients are affected by more than one medical problem and take several medications. In fact, multimorbidity and polypharmacy are relatively common, particularly among the elderly. Hence, all internists should possess a sound knowledge of all common types of medications used for the management of frequently encountered medical conditions and the important interactions among these drugs and diseases.

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
	Drug interactions (including interactions with commonly used alternative medicine agents, e.g. herbal medicines)	
	Common drug–disease interactions	
	Effect of age on use of medications and patient safety, including problems associated with polypharmacy	
	Drug allergies	

Transfusion medicine

All internists should be competent in the therapeutic use of blood components and in the management of adverse reactions.

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
	Indications for transfusion of packed red cells	Massive transfusion
	Platelet transfusion	Leukapheresis
	Transfusion reactions, including febrile reactions, transfusion-related acute lung injury (TRALI), allergic reactions and acute haemolytic reactions	
	Transfusion-related infections	

Basic preventive care

All internists should be competent in the principles of screening and preventive care that applies to large segments of the population and across the adult age spectrum.

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
	Promote healthy life styles	
	Cancer screening recommendations	
	Non-cancer screening recommendations (e.g. bone density)	
	Vaccination	
	Pharmacological measures (e.g. aspirin, calcium)	
	Screening for common problems among older patients (e.g. cognitive impairment, depression, functional impairment, falls and gait instability, incontinence)	
	Thromboprophylaxis	
	Infection prevention	
	Antibiotic prophylaxis and stewardship	

Interpretation of clinical tests and imaging studies

All internists should be competent in the interpretation of the common clinical laboratory tests and imaging studies performed as part of the diagnostic evaluation and management of patients with undifferentiated presentations and common medical conditions.

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
Clinical statistics		
	Basic principles of probability, test performance, characteristics, accuracy and reliability	
Standard laboratory tests		
	Full blood count	
	Coagulation screen	
	Haemolysis screen	
	D-dimer test	
	Blood film report	
	Basic blood biochemistry tests, including electrolytes, calcium creatinine, liver function tests and glucose	
	Cardiac biomarkers and cardiac-specific troponin	
	Creatine kinase	
	Amylase	
	Inflammatory markers (e.g. C-reactive protein, erythrocyte sedimentation rate)	
	Serum protein electrophoresis, serum free light chains	
	Urinalysis, urine microscopy	
	Stool testing for faecal elastase, calprotectin	
Body fluid analysis		
	Urine, pleural fluid, ascitic fluid, joint fluid or cerebrospinal fluid analysis	
Basic imaging interpretation		
	Chest X-ray	
	Ultrasound	
	Computerised tomography scan	
	Magnetic resonance imaging	
	Positron emission tomography scan	
	Joint radiographs	
	Radioisotope bone scan	
	Bone densitometry	
	Scintigraphy in endocrine disorders	
	Ventilation/perfusion scan	
Microbiologic tests		
	Blood, sputum, urine or stool for microscopy, polymerase-chain reaction (PCR), culture and sensitivity	
	Helicobacter pylori testing	
	Viral hepatitis serological testing	
	Human immunodeficiency virus testing	

	INDEPENDENT DIAGNOSIS AND THERAPY	INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL
Endocrine tests		
	Cortisol and short synacthen test	Specialist endocrine suppression or stimulation tests: Dexamethasone suppression test, insulin tolerance test, water deprivation test, growth hormone stimulation test
	Glucose tolerance test	
	Thyroid function tests	
	HbA1C	
	Lipid profile	
	Plasma and urinary metanephrines, catecholamines	
	Sex hormones: follicle-stimulating hormone (FSH), luteinising hormone (LH), testosterone, oestrogen, progesterone, prolactin	
Immunologic tests		
	Coeliac serology and screening	
	Autoantibodies: extractable nuclear antigens (ENA), anti-neutrophil cytoplasmic antibodies (ANCA), antinuclear antibodies (ANA), rheumatoid factor (RF), cyclic citrullinated peptide antibody (CCP)	
Pathology		
		Liver biopsy
		Renal biopsy
		Bone marrow and lymph node biopsy
		Cytology: pleural fluid, ascitic fluid, cerebrospinal fluid, sputum, urine, lymph node, mass of unknown origin
		Fine needle aspiration of thyroid nodule
Endoscopic examinations		
		Bronchoscopy
		Upper and lower gastrointestinal endoscopy
		Endoscopic retrograde cholangiopancreatography (ERCP)

D3 Presentations to other specialties that may need input from the internist

INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL		
Ear, nose and throat disorders	Eye disorders	Nervous system disorders
Epistaxis	Uveitis	Mononeuropathy, polyneuropathy, radiculopathy
Hoarseness	Scleritis	Carpal tunnel syndrome
Parotitis	Episcleritis	Paraplegia
Sinusitis	Conjunctivitis	Headache
Glossitis	Painful eye	Guillain-Barré syndrome
Tonsillitis	Sicca syndrome	Fits/seizures
Pharyngitis	Exophthalmos	Parkinson's disease
Parapharyngeal and retropharyngeal abscess	Visual disturbances	Multiple sclerosis
Vertigo	Cataract	Myopathy or myositis

INITIAL DIAGNOSIS AND THERAPY; TIMELY CONSULTATION AND/OR REFERRAL		
Otitis media	Red eye	Bell's palsy
Otitis externa		Vertigo
Mastoiditis		Sleep disorders
Congenital disease		Weakness and paralysis
Salivary gland tumour		Abnormal sensation (paraesthesia and numbness)
Lymphadenopathy		Head injury
		Visual disturbance (diplopia, visual field deficit, reduced acuity)
		Speech disorder

D4 Procedures

There are a number of procedures that all internal medicine trainees should be proficient in by the time they complete their training programme. There are other procedures performed by internists depending upon the scope of their practice or the setting in which they work. The needs of the internal medicine trainee to learn these procedures will depend upon his or her interests, potential area of specialisation, practice setting, geographical location and the availability of other physicians who carry out the procedures.

Many procedures can be performed either by internists or by physicians in other specialties stemming from internal medicine, with the deciding factor being the experience and proficiency of the physician carrying out the procedure rather than the type of specialty qualification. It is appropriate for physicians to learn new skills as their interests or scopes of practice change, or when new procedures become available. Opportunities must exist for physicians, in the course of their career, to learn new procedures, to retrain in procedures they have not practised recently and to improve their skills in performing procedures that are part of their current practice.

For all types of procedures, performance must be accompanied by knowledge and understanding of the indications and contraindications, patient preparation methods, aseptic/sterile technique (when relevant), pain management, awareness and treatment of complications, and proper techniques for handling specimens (when relevant).

There is also a broad spectrum of procedures that internists may not necessarily perform themselves, but with regard to which they must understand the indications, contraindications, complications and post-procedure management.

For all procedures carried out by internal medicine trainees, it is essential that appropriate supervision (see Part I, Section 2.3 of the curriculum) be provided by a physician (usually a higher level medical specialist) already experienced and competent in performing the procedure.

Certain procedures that are performed by internists in more than 50% of European countries according to the survey on the practice of internal medicine in Europe are designated as a mandatory part of internal medicine training. Other procedures are considered optional.

	MANDATORY ^{iv}	OPTIONAL (COULD DO, BUT MAY NEED TO REFER TO ANOTHER SPECIALIST)
Percutaneous needle-related skills and performance of a range of percutaneous procedures (if available, preferably under ultrasound guidance)	Venepuncture	Central venous catheter insertion
	Arterial puncture	Arterial catheter insertion
	Peripheral intravenous line insertion	Pulmonary artery catheter insertion
	Abdominal paracentesis	
	Thoracentesis	
	Lumbar puncture	Joint aspiration

	MANDATORY ^{iv}	OPTIONAL (COULD DO, BUT MAY NEED TO REFER TO ANOTHER SPECIALIST)
	Simple surgical stitching/suturing	Incision and drainage of an abscess
	Soft tissue injection (intra-dermal, subcutaneous, intramuscular)	Joint and other related soft tissue injection (e.g. tendon or bursa)
		Bone marrow aspiration and biopsy
		Skin biopsy
Skills and procedures related to entry of a body orifice	Nasogastric tube insertion	Endoscopy
	Urethral catheterisation (male and female)	Endotracheal intubation
Non-invasive diagnostic testing	Comprehensive geriatric assessment	
	Electrocardiographic recording and interpretation	
	24-hour electrocardiographic monitoring	
	Treadmill exercise testing	Tilt-table testing
	Spirometry	
	Ambulatory blood pressure monitoring	Polysomnography
	Ankle-brachial index	
	Bedside 'binary' ultrasound ^v	Specialised ultrasound, e.g. echocardiography
Resuscitative skills	Advanced cardiac life support	Emergency endotracheal tube placement
		Invasive mechanical ventilation
		Non-invasive ventilation

ⁱ This appendix is based on the Specialty Training Curriculum for General Internal Medicine by the Joint Royal Colleges of Physicians Training Board, issued in August 2009 and amended in 2012 (http://www.gmc-uk.org/2009__AUC__GIM_curriculum__amendments_2012__AUC.pdf_56436570.pdf) and the Training Requirements for Internal Medicine 'Intellect', 2015, by the Dutch Society of Internal Medicine.

ⁱⁱ Clinical presentations and diseases (medical diagnoses) rated as common in $\geq 75\%$ of countries in a survey on the practice of internal medicine in Europe (Cranston M, Semple C, Duckitt R, Vardi M, Lindgren S, Davidson C, et al.; for the European Board of Internal Medicine Competencies Working Group. The practice of internal medicine in Europe: organisation, clinical conditions and procedures. *Eur J Intern Med* 2013;24:627–32. <https://doi.org/10.1016/j.ejim.2013.08.005>) are highlighted with a blue background.

ⁱⁱⁱ Surgical presentations are traditionally managed by surgical teams. However, such presenting symptoms are included in this curriculum as an internist is often called upon to perform the initial assessment of these patients. Surgical presentations frequently occur in the context of long-term medical illness. In addition, where the hospital at night team structure is in place, internal medicine trainees are responsible for the care of surgical inpatients. They are expected to stabilise the patient as necessary, carry out initial evaluation and management if urgently required, and make a referral to the appropriate surgical team for a specialist opinion in a timely manner.

^{iv} Rated as common in $>50\%$ of European countries in a survey on the practice of internal medicine in Europe (Cranston M, Semple C, Duckitt R, Vardi M, Lindgren S, Davidson C, et al.; for the European Board of Internal Medicine Competencies Working Group. The practice of internal medicine in Europe: organisation, clinical conditions and procedures. *Eur J Intern Med* 2013;24:627–32. <https://doi.org/10.1016/j.ejim.2013.08.005>).

^v Answering questions with "yes" or "no", for example whether or not ascites or pleural effusion is present.



APPENDIX



MILESTONES

E1 Medical expert

As medical experts, internists integrate all of the CanMEDS roles and apply medical knowledge, clinical skills and a professional attitude when providing high-quality and safe patient-centred care. The medical expert is the central role of the CanMEDS Framework and defines the internist's clinical scope of practice.

As medical experts, internists are able to reach the milestones outlined in the following table by years 2 and 5 of training.

MILESTONES — YEAR 2	MILESTONES — YEAR 5
Obtain a relevant history from the patient in an efficient, compassionate and factual manner	Obtain relevant historical subtleties that inform and prioritise both differential diagnoses and diagnostic plans, including sensitive, complicated and detailed information that often may not be volunteered by the patient
Perform a physical examination that is appropriately targeted to the patient's symptoms. Identify pertinent abnormalities using recognised techniques	Routinely identify subtle or unusual physical findings that may influence clinical decision-making, using advanced techniques where applicable
	Demonstrate and teach how to obtain important physical findings for junior members of the healthcare team
Analyse all available data, including history, physical examination and preliminary laboratory data, to define a patient's presenting complaint	
Seek out and analyse appropriate, verified and prioritised data from secondary sources (e.g. family, records, pharmacy records); obtain a patient's consent	
Prioritise differential diagnoses and develop evidence-based diagnostic and therapeutic care plans for common inpatient and ambulatory conditions	
Accurately monitor important changes in the patient's physical condition through examination over time in outpatient and inpatient settings	
Modify differential diagnoses and care plans based on clinical course and data as appropriate	
Recognise when to seek additional guidance	
Reach agreement with patients and their families regarding priorities for each encounter at the outset	Focus the clinical encounter, performing it in a timely and effective manner, without excluding key elements
	Consider urgency, feasibility, the availability of resources and co-morbidities in determining clinical priorities for the patient encounter
Address the patient's and/or carer's ideas about the nature and cause of conditions, demonstrating awareness of their fears, concerns and expectations	Establish outcomes of care, which may include slowing disease progression, recovery, improved function, treatment of symptoms and palliative care
With supervision (3), ¹ customise care in the context of the patient's preferences and overall health	Tailor care in line with the patient's preferences and overall health
	Ensure that patients and their families are informed about the risks and consequences of each choice of treatment, in the context of best available evidence and guidelines
Assess the patient's decision-making capacity	Tailor approaches to decision-making to the patient's capacity, values and preferences
On the basis of patient-centred priorities, address and prioritise, under supervision (3), multiple competing tasks that need to be addressed	Maintain a duty of care and patient safety while juggling multiple responsibilities
Understand indications for, risks of and basic interpretation of common diagnostic tests, including but not limited to routine blood tests, haematology studies, coagulation screening, arterial blood gases, ECG, chest X-ray, pulmonary function tests, and analysis of urine and other body fluids	Recognise indications and demonstrate basic skills when interpreting more advanced diagnostic tests
Make appropriate clinical decisions based on the results of common diagnostic testing, including, but not limited to, routine blood tests, haematology studies, coagulation screening, arterial blood gases, ECG, chest X-ray, pulmonary function tests, and analysis of urine and other body fluids	Make appropriate clinical decisions based upon the results of more advanced diagnostic tests

MILESTONES — YEAR 2	MILESTONES — YEAR 5
With patients' consent, prepare and perform simple procedures with minimal assistance: venepuncture, abdominal tap, pleural tap, arterial line insertion, urinary catheterisation, gastric tube insertion and haemodynamic monitoring	Obtain appropriate consent when preparing and performing invasive procedures and provide post-procedure management
With minimal supervision (4), manage patients with common clinical presentations seen in the practice of inpatient and ambulatory internal medicine, including anaemia, oedema, dyspnoea, chest pain, liver function abnormalities, impaired renal function, electrolyte and acid-base disturbances, abdominal pain, constipation and diarrhoea	
Demonstrate sufficient knowledge to diagnose and treat common conditions that require hospitalisation	
	Demonstrate sufficient knowledge to diagnose and treat undifferentiated and arising conditions
Demonstrate sufficient knowledge to assess common ambulatory conditions	
Demonstrate awareness of opportunities to provide preventive care	Demonstrate sufficient knowledge to provide preventive care
With minimal supervision (4), manage patients with common clinical disorders seen in the practice of inpatient and ambulatory internal medicine, including diabetes mellitus, thyroid diseases, osteoporosis, heart failure, atrial fibrillation, chronic obstructive pulmonary disease, chronic kidney disease, deep vein thrombosis, pulmonary embolism, pneumonia, pleurisy, uncomplicated pancreatitis, uncomplicated diverticulitis, cellulitis, urinary tract infection and infectious diarrhoea	Use a broad base and depth of knowledge in clinical and biomedical sciences to independently manage patients with a broad spectrum of clinical disorders seen in the practice of general internal medicine
Consider urgency and potential for deterioration in promoting the timely execution of procedures for patients	Demonstrate sufficient knowledge of triage procedures, taking into account clinical urgency, potential for deterioration and available resources
Recognise situations with a need for urgent medical care, including life-threatening conditions	Demonstrate sufficient knowledge to identify and treat medical conditions that require intensive care
Initiate management and stabilise patients with acute medical conditions, including chest pain, dyspnoea, confusion, anaphylaxis, sepsis, rhythm disturbances, coma, syncope, shock, gastrointestinal bleeding and adverse effects from the use of anticoagulants and antiplatelet drugs	Manage patients with conditions that require intensive care
Identify clinical situations in which complexity, uncertainty and ambiguity may play a role in decision-making	
With supervision (3), manage patients with complex clinical disorders seen in inpatient and ambulatory care settings	Demonstrate sufficient knowledge to evaluate complex or rare medical conditions and multiple co-existing conditions
	Adapt care as the complexity, uncertainty and ambiguity of the patient's clinical condition evolves
	Recognise disease presentations that deviate from common patterns and that require complex decision-making
	Manage complex or rare medical conditions
Determine the necessity and appropriate timing of consultation	Request consultative services in an effective manner
With supervision (3), customise care according to consultations provided by other services	Coordinate investigation, treatment and follow-up plans when several consultants are involved
With supervision (3), perform consultations, present well-documented assessments and propose appropriate recommendations	Provide specific, responsive consultation to other services with clear and useful recommendations
	Provide internal medicine consultation for patients with more complex clinical problems; perform detailed risk assessments

E2 Communicator

As communicators, internists form relationships with patients and their families that facilitate the gathering and sharing of information that is essential for exemplary healthcare.

As communicators, internists are able to reach the milestones outlined in the following table by years 2 and 5 of training.

MILESTONES — YEAR 2	MILESTONES — YEAR 5
Communicate in a respectful way with the patient	
Optimise the physical environment for the comfort, privacy, engagement and safety of the patient	
Recognise and respond to non-verbal cues on the part of patients and their families	Use verbal and non-verbal skills effectively to create a rapport with patients/families
Manage emotionally charged conversations when strong emotions (e.g. anger, fear, anxiety, and sadness) are interfering with an interaction	Assess personal emotions during interactions with patients, as these are valuable clues about an individual patient's emotional state
Engage with patients, family members or advocates in shared decision-making for uncomplicated diagnostic or therapeutic scenarios	Engage with the patient, family members or advocates in shared decision-making for difficult, ambiguous or controversial scenarios
	Actively seek to understand patient differences and views, and reflect this in respectful communication in order to achieve shared decision-making with the patient and the healthcare team
Use strategies to ensure that a patient understands the diagnosis, anticipated outcomes and management plan	Counsel patients about the risks and benefits of tests and procedures, highlighting cost-awareness and resource allocation
	Communicate risks and benefits of alternative therapeutic options to patients
	Share information and explanations that are clear, accurate, timely and skilfully adapted to the patient's level of understanding
	Recognise when patient and physician values, biases or perspectives threaten the quality of care, and modify the approach to patient care as appropriate
	Utilise patient-centred educational strategies
	Use role models to communicate effectively in challenging situations
Assess a patient's health literacy	Effectively engage the patient in the clinical context, particularly through the use of patient education (tools)
	Use tailored teaching aids, supply hand-outs and suggest online resources to provide information to the patient in accordance with his or her health literacy
Provide timely communication to patients/healthcare advocates	Share information related to the patient's health status, care and needs in a timely, honest and transparent fashion
Demonstrate sensitivity to differences between patients, including but not limited to race, culture, gender, sexual orientation, socio-economic status, literacy and religious beliefs	Engage patients in a way that is respectful and non-judgemental and culturally safe
Deliver bad news in a compassionate way	Anticipate and respond to the patient's emotional reactions with compassion and support
Engage the patient, family members or healthcare advocates in shared decision-making regarding end-of-life care	
Deliver appropriate, succinct, evidence-based oral presentations during case discussions	
Effectively communicate care plans to all members of the healthcare team and seek their advice	
Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and confidentiality requirements	
Communicate (medical records) clearly and effectively, in writing and verbally, with healthcare professionals in line with recognised medical practice	Document clinical encounters to adequately convey clinical reasoning and the rationale for making certain decisions
Provide succinct, relevant and patient-specific written communications	
Provide timely and comprehensive verbal and written communications to patients, family or healthcare advocates or professionals during transfer of care	Communicate effectively with patients/advocates and healthcare professionals during the transfer of care
Communicate effectively the role of the consultant to the patient	

MILESTONES — YEAR 2	MILESTONES — YEAR 5
	Use electronic tools appropriately to communicate with patients while protecting their confidentiality

E3 Collaborator

As collaborators, internists work effectively with other healthcare professionals to provide the highest possible standard of patient care.

As collaborators, internists are able to reach the milestones outlined in the following table by years 2 and 5 of training.

MILESTONES — YEAR 2	MILESTONES — YEAR 5
Understand fully the roles of a variety of healthcare providers, including but not limited to consultants, nurses, home-care workers, pharmacists and social workers	
Interact with colleagues, patients and their designated carers in a timely manner	Engage in collaborative communication with all members of the healthcare team
	Demonstrate the ability to manage a multidisciplinary team by utilising the skills and coordinating the activities of the individual team members
	Be alert to patient safety concerns that relate to team function, anticipate issues that could impact situational awareness and take appropriate action to mitigate potential harm to patients
Welcome and treat feedback from all members of the healthcare team constructively, including faculty, peers, students, nurses, allied health professionals, and patients and their advocates	Actively seek feedback from all members of the healthcare team
	Communicate constructive feedback to other members of the healthcare team
Communicate clearly and directly to resolve conflict	Implement strategies to resolve conflict in a manner that supports a collaborative culture
Listen carefully in order to understand differences of opinion among healthcare providers and find common ground	Gain consensus among colleagues when resolving conflicts
Establish a care plan, in a respectful way, with other multidisciplinary team members	Ensure patient-centred care among multiple care providers
Consider management suggestions and alternative solutions provided by other teammates and modify the care plan as appropriate	Partner with internal and external professionals in addition to the patient and his or her family to integrate the patient's perspective and personal circumstances into the care plan
Liaise with physician colleagues during handover to ensure safe, effective and accountable transfer of patient care	In complex situations, coordinate the safe transfer of care to the most appropriate healthcare provider
Communicate effectively with the receiving team to facilitate transfer of care	Summarise ongoing clinical concerns at handover, including plans to deal with ongoing issues during and after transfer
	Remain available to the receiving team following transfer of care to help clarify issues as needed
Communicate effectively with other caregivers in order to maintain appropriate continuity during transfer of care	Manage and coordinate care and transfer of care across multiple delivery systems, including ambulatory, sub-acute and acute care, rehabilitation and advanced nursing
	Fully involve medical and other allied healthcare professionals when transferring younger patients from paediatric to adult services
Consult with other healthcare providers, including physicians or surgeons, as appropriate	Communicate consultative recommendations to the receiving team in an effective manner
	Establish overlapping roles and shared responsibilities with internal and external healthcare providers for the episodic or continuing care of patients
Recognise referral and consultation as opportunities to improve quality of care and patient safety through shared expertise	
	Consistently discuss with patients and their families any plan for involving other healthcare professionals, including other physicians, in their care and discuss their expectations of such involvement

E4 Leader

As leaders, internists develop, in collaboration with other healthcare leaders, a vision of a high-quality healthcare system and take responsibility for effecting change to enable the achievement of that vision.

As leaders, internists are able to reach the milestones outlined in the following table by years 2 and 5 of training.

MILESTONES — YEAR 2	MILESTONES — YEAR 5
Maintain a portfolio of performance	
Perform ward rounds in an efficient and timely manner	
When a question or a problem arises, decide if it can wait until later or if it has to be addressed immediately, for example while "on-call"	
Follow formal policies and procedures	
Ensure the prompt completion of clinical, administrative and curricular tasks	Develop time management skills in specific contexts, such as delegation, meeting administration and teamwork
	Determine objectives and timelines
	Adjust priorities to enable participation in clinical, professional, institutional, provincial, national and/or international activities
Develop systematic habits for practice management (e.g. checklists, prompts, to-do lists and standard operating procedures)	Apply educational experience in order to gain the competencies necessary for future, independent practice
Seek performance assessments and reflect on how they can modify future performance	Seek feedback and undertake audits in order to drive practice improvement
	Participate in activities and educational programmes, such as those aimed at developing self-awareness, self-reflection and self-management, in order to become a leader and a follower in healthcare organisations
	Provide leadership for a team that respects patient dignity and autonomy
	Take a leadership role in the education of all members of the healthcare team
	Refer to key performance indicators during team discussions to support team decision-making
	Use management or performance indicators to monitor service delivery against accepted outcomes
	Engage with a multidisciplinary team to implement changes in the delivery of clinical care using a relevant change framework
	Provide advice and guidance from a clinical perspective to managers and policy-makers
Balance personal life with the participation in educational opportunities and the provision of patient care	Balance personal life with responsibilities for education, research, administration and patient care
	Integrate teaching, feedback and evaluation with the supervision of trainees' and students' patient care
Organise work using strategies that address strengths and areas for improvement with regard to personal effectiveness and efficiency	Align goals with opportunities for participation in unanticipated work and other activities
	Align early practice with career goals and current opportunities

E5 Health advocate

As health advocates, internists responsibly apply their expertise and influence to improve health through working with the patients, communities or populations they serve. This helps internists to determine and understand needs to develop partnerships, to speak on behalf of others when needed and to support the mobilisation of resources to effect change.

As health advocates, internists are able to reach the milestones outlined in the following table by years 2 and 5 of training.

MILESTONES — YEAR 2	MILESTONES — YEAR 5
Respect and maintain patient confidentiality	
Recognise, when it is necessary, the need to support an individual patient's needs	Act as an advocate for the individual, especially the vulnerable, patient's needs
Identify with patients and their families any challenges they may face with respect to access to healthcare and related resources	Analyse a patient's health needs and facilitate timely access to services and resources
Treat patients with dignity, civility and respect, regardless of race, culture, ethnicity, gender, age or socio-economic status	
Reflect awareness of common socio-economic barriers that affect patient care	Demonstrate sufficient knowledge of socio-behavioural sciences, including but not limited to healthcare economics, medical ethics and medical education
Recognise that the disparities which exist in healthcare among populations may affect patient care	Embrace the physician's role in assisting the public and policy-makers in understanding and addressing causes of disparity in disease and suffering
Record critical incidents in accordance with local policies	
Report patient safety hazards and adverse events	
Identify, reflect on and learn from critical incidents such as near misses and preventable medical errors	Understand the mechanisms for analysis and correction of systems errors
	Participate in analysis to generate change after an adverse event or near miss
	Lead or actively engage in a process for change to prevent future adverse events or near misses
Accept personal errors, honestly acknowledge them and value the lessons learned	
Recognise pressures in the healthcare system that increase the risk of errors, including barriers to providing optimal care	
Work effectively as a member of the multidisciplinary team to ensure safe patient care	Consult with members of the healthcare team to identify risks and avert medical errors
	Identify areas in personal practice and local systems that can be changed to improve the processes and outcomes of care
	Perform an audit review of a panel of patients using standardised, disease-specific and evidence-based criteria
	Reflect on audits by comparisons with local or national benchmarks and explore possible explanations for deficiencies, taking into account physician-related, system-related and patient-related factors
	Use informatics for quality improvement by improving information flow into, within and out of practice
Budget appropriately when choosing care options	
Demonstrate cost-awareness when making routine clinical judgments and decisions	Demonstrate cost-awareness related to complex clinical scenarios
Minimise unnecessary care, including tests, procedures, therapies, and ambulatory or hospital encounters	Advocate/promote appropriate allocation of limited healthcare resources
Understand unique roles and services provided by local healthcare delivery systems	
Identify stakeholder roles, including providers, suppliers, financiers, purchasers and consumers and determine the impact of the various roles upon the cost of and access to healthcare	
Understand how cost-benefit analysis is applied to patient care (i.e. via principles of screening tests and the development of clinical guidelines)	
Apply evidence and guidelines as relevant to common clinical scenarios	Apply available evidence or recommendations to cost-appropriate care and develop plans to change areas of wasteful practice
Follow formal policies and guidelines	
	Engage in a quality improvement activity

MILESTONES — YEAR 2	MILESTONES — YEAR 5
	Demonstrate the ability to understand and engage in a system-level quality improvement initiative
	Partner with other healthcare team professionals to identify and propose improvement opportunities within the system
Understand fully the responsibility to assess and improve care collectively for a specific group of patients	
Identify patients or populations that are not receiving optimal clinical care	Improve his or her clinical practice by applying a process of continuous quality improvement to disease prevention, health promotion and health surveillance activities
Provide appropriate preventive care and educate patients regarding activities beneficial to health	Incorporate disease prevention, health promotion and health surveillance activities into interactions with individual patients
	Recognise and take responsibility for situations where public health supersedes that of the individual (e.g. reportable infectious diseases)

E6 Scholar

As scholars, internists demonstrate a lifelong commitment to excellence in practice through continuous learning, the teaching of others, the evaluation of evidence and other resources, and contributions to scholarship.

As scholars, internists are able to reach the milestones outlined in the following table by years 2 and 5 of training.

MILESTONES — YEAR 2	MILESTONES — YEAR 5
Regularly engage in personal learning by drawing upon various sources (daily work, publications, scanning of literature, and formal or informal education sessions) to identify and prioritise learning needs	Engage in reflective practice
	Identify the learning needs of a healthcare team in order to improve the quality of care and patient safety
	Engage at all times in collaborative learning to improve personal practice and contribute to collective improvement in practice
Formulate an appropriate research question (using the PICO model), define a search strategy and select the appropriate literature for critical appraisal	Classify and precisely articulate clinical questions
	Formulate detailed scholarly questions in the categories of diagnosis, prognosis, prevention, therapy, harm reduction and clinical prediction, incorporating outcomes important to the patient
	Develop a system to monitor, examine and reflect on clinical questions
Access appropriate sources of medical information to answer clinical questions and support decision-making	Effectively and efficiently source an evidence-based summary of medical information
	Demonstrate proficiency in identifying, selecting and navigating sources of clinical information that provide, or are based on, pre-appraised evidence
	Assess sources of medical information and select for use the most appropriate based on the clinical question posed
With assistance, engage in the critical appraisal of clinical research papers	Independently engage in the critical appraisal of clinical research papers
	Independently analyse recommendations in clinical guidelines to determine bias and cost-benefit considerations
For a given clinical case, demonstrate the application of evidence during clinical decision-making	Demonstrate the ability to use an integrated model for decision-making that combines best evidence, resources and clinical expertise in the context of patient values and preferences
Determine and explain if clinical evidence can be generalised to an individual patient	Customise clinical evidence for an individual patient
Understand the relevant pathophysiology and molecular mechanisms of common medical conditions	Understand the relevant pathophysiology and molecular mechanisms of uncommon or complex medical conditions

MILESTONES — YEAR 2	MILESTONES — YEAR 5
Recognise uncertainty and knowledge gaps in clinical and other professional encounters relevant to internal medicine	Recognise uncertainty and knowledge gaps in clinical and other professional encounters, and generate focused questions to address them
Guide and educate medical students	Guide and educate junior trainees
Seek and respond to feedback from supervisors, peers and others	Provide written or verbal feedback to other learners, faculty and other members of the healthcare team
	Balance the potential conflict between direct clinical supervision and gradual increase in responsibility
	Identify ethical principles for research and incorporate them into obtaining informed consent; also consider the risks and benefits and vulnerable populations in this context
Identify potentially relevant questions that lend themselves to scholarly inquiry in internal medicine	Pose relevant, appropriately constructed questions that lend themselves to scholarly investigation

E7 Professional

As professionals, internists are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, commitment to the profession, profession-led regulation and maintenance of personal health.

As professionals, internists are able to reach the milestones outlined in the following table by years 2 and 5 of training.

MILESTONES YEAR 2	MILESTONES YEAR 5
Dress and behave professionally	Act as a professional role model for more junior colleagues (e.g. medical students and interns)
	Act as a role model with regard to respectful behaviour towards physician and non-physician colleagues in clinical, educational and administrative settings
	Respond on an individual level to colleagues' lapses of professional conduct in all areas of practice
	Intervene when behaviour towards colleagues and learners compromises a respectful environment
Maintain professional relationships with patients, families and staff	Maintain ethical relationships with industry
Uphold ethical principles and comply with relevant policies and codes of practice	Uphold ethical expectations of research and scholarly activities
Demonstrate empathy and compassion to all patients	Provide support (physical, psychological, social and spiritual) for dying patients and their families
Demonstrate a commitment to relieving pain and suffering	
Identify learning needs as they emerge in patient care activities and take appropriate action	Demonstrate a commitment to identifying and addressing gaps in the knowledge and skills necessary for optimal practice of internal medicine
Actively participate in teaching conferences	
Recognise the scope of his or her abilities and ask for supervision and assistance when appropriate	
Recognise ethical issues encountered in the clinical setting and during academic activities	Manage ethical issues encountered in the clinical setting and during academic activities
Welcome feedback and react constructively	Reflect on and adapt to multisource feedback
With supervision (4), reflect on actions	Reflect (in action) when surprised, apply new insights to future clinical scenarios and reflect (on action) when looking back
	Be aware of what is happening and respond to meet situational needs
Recognise and address personal, psychological and physical limitations that may affect performance	Recognise, respond to and report under-performing colleagues or sub-standard care using the peer-review process
Recognise and manage obvious conflicts of interest, such as caring for family members and professional associates	Recognise and manage subtle conflicts of interest

MILESTONES — YEAR 2	MILESTONES — YEAR 5
	Recognise and manage conflict when patients' values differ from your own
Fulfil clinical responsibilities without the need to be reminded	Recognise the need to assist colleagues in the provision of duties
Separate personal responsibilities from that of other healthcare team members	
Recognise the conflict between the physician's role as advocate for individual patients and the need to manage limited resources	Demonstrate an ability to balance the duty of care to patients with the overall public good
Respond to patients' and society's expectations in clinical interactions	Recognise and manage conflicts or differences in the expectations of society and the profession
Manage effectively the impact of physical and environmental factors on performance	Demonstrate resilience in challenging situations and help others to use their own skills to adapt and recover
	Manage competing personal and professional priorities effectively
Seek mentorship to address various professional development needs	Support others when undergoing professional change
	Address, in a sensitive and supportive way, behaviour that compromises collegiality in the workplace
	Manage and support others as they deal with the impact of critical incidents or adverse events
	Exhibit proficiency in providing support for physician colleagues and in educating learners
Speak up when situations occur in the clinical training environment that may compromise patient safety	Respond to barriers in the healthcare system that compromise patient safety and care

¹The number between brackets signifies the level of supervision.

APPENDIX



ENTRUSTABLE PROFESSIONAL ACTIVITIES

Below is a listⁱ of comprehensive EPAs that can be viewed as consisting of smaller, more elementary EPAs, which serves as an example; end-of-training EPAs are highlighted with circle and blue color.

1. Evaluate and manage a new medical condition in an ambulatory patient and coordinate care among healthcare providers across multiple care settings.
2. **Manage the care of patients with acute medical conditions across multiple care settings.**
3. **Manage the care of patients with complex medical conditions and/or comorbidities across multiple care settings.**
4. **Manage the transition of care** of adult patients transferring to another care setting.
5. Manage the transition of care of young patients transferring from paediatric to adult services.
6. **Provide medical consultation to non-medical specialties.**
7. Admit and manage an acutely ill patient in the medical admissions unit.
8. Manage an inpatient with acute exacerbation of a chronic medical condition on the ward.
9. **Lead a meeting to discuss serious news (e.g. bad news, end-of-life care) with a patient and/or family members and other healthcare providers.**
10. Obtain an initial history, perform a physical examination and formulate a management plan for a new ambulatory patient in a continuing care clinic.
11. Provide continuity of care and conduct interim visits for primary care patients with multiple chronic conditions.
12. **Manage the care of patients with chronic conditions across multiple care settings.**
13. Formulate and implement a safe discharge plan for a patient in an acute care setting.
14. Triage patients to an appropriate level of care.
15. **Provide perioperative assessment and care.**
16. Access medical information to provide evidence-based care.
17. Identify and manage emergency presentations.
18. Provide emergency multidisciplinary care to medical inpatients.
19. **Lead a team managing multiple inpatients and work with multidisciplinary teams.**
20. **Facilitate the understanding of medical information for patients, their families and members of the multidisciplinary team.**
21. Recognise and diagnose common non-medical conditions (surgical, neurological, dermatologic, etc.) and refer patients appropriately to other specialty care.
22. Diagnose and co-manage patients with complex conditions requiring other specialty care (inpatient or outpatient).
23. Organise and maintain information and knowledge through medical practice to improve personal development when delivering care and educating others (journal club, etc.).
24. Recognise when palliative care is needed and liaise with palliative care specialists.
25. Counsel patients appropriately.

- 26. **Act as an advocate for individual patients by representing them, supporting them and working for them.**
- 27. **Improve patient safety.**
- 28. **Resuscitate, stabilise and care for unstable or critically ill patients** and admit them to the intensive care unit.
- 29. **Provide age-appropriate screening and preventive care.**
- 30. Identify and address any need for quality improvement in a clinical setting.
- 31. **Improve the quality and safety of healthcare at both individual and system levels.**
- 32. Provide telephone management for an ambulatory patient in an emergency situation.
- 33. Provide care to non-native speakers in an inpatient or outpatient setting, through the use of appropriate translation services.
- 34. Develop and implement a management plan based on a review of outcome data for an ambulatory patient population.
- 35. Provide inpatient and outpatient care for patients that have difficulty accessing appropriate healthcare; act as an advocate for individual patients when needed.
- 36. Participate in and lead an in-hospital cardiopulmonary resuscitation.
- 37. Perform common procedures in internal medicine (lumbar puncture, thoracocentesis, central line insertion, joint aspiration, etc.).
- 38. Undertake a research project (e.g. for a degree or diploma, quality improvement, educational opportunity, other).
- 39. **Develop the practice of life-long learning.**
- 40. **Demonstrate professional behaviour at all times.**

ⁱ Modified from Hauer KE, Kohlwes J, Cornett P, Hollander H, ten Cate O, Ranji SR, et al. Identifying entrustable professional activities in internal medicine training. J Grad Med Educ 2013;5:54-59.
Alliance for Academic Internal Medicine. Internal medicine end of training EPAs; 2012.



APPENDIX



EPA TEMPLATE

Template for EPA report

Area of practice	Rotation title			
Stage of training	Stage			Version
The following EPA will be entrusted when your supervisor is confident that you can be trusted to perform the activity described to the required standard with the appropriate level of supervision or no supervision at all. Your supervisor will expect you to know when to ask for additional help; he or she will also trust you to seek assistance as appropriate and in a timely manner.				
Title				
Description				
Competencies	ME	Sub-competencies #	HA	Sub-competencies #
	COM	Sub-competencies # Sub-competencies #	SCH	Sub-competencies #
	COL	Sub-competencies #	PROF	Sub-competencies #
	LEAD	Sub-competencies #		
Knowledge, skills and attitude required	Competence is demonstrated if the trainee has shown sufficient aspects of the knowledge, skills and attitudes described below			
	Ability to apply an adequate knowledge base Skills Attitudes			
Assessment method	Continuous assessment during individual and clinical supervision			
Suggested assessment method details	Case-based discussions; multisource feedback			

COL, collaborator; COM, communicator; HA, health advocate; LEAD, leader; ME, medical expert; PROF, professional; SCH, scholar.

Example of EPA report

Area of practice	Rotation title			
Stage of training	Stage		Year 1	Version
The following EPA will be entrusted when your supervisor is confident that you can be trusted to perform the activity described to the required standard with the appropriate level of supervision or no supervision at all. Your supervisor will expect you to know when to ask for additional help; he or she will also trust you to seek assistance as appropriate and in a timely manner.				
Title	Producing discharge summaries and organising appropriate transfer of care			
Description	The trainee can produce succinct and informative discharge summaries and organise appropriate transfer of care. He or she understands the importance of clinical records in transfer of care and discharge and can make the appropriate arrangements for medications and/or other ongoing treatments and liaise with appropriate clinicians, teams, community, organisations and primary care providers. The trainee formulates relapse prevention and recovery plans in collaboration with the patient and provides appropriate and timely handover of written information. The discharge summaries are succinct yet informative and can function as a clinical handover, as well as a historical record of the patient's hospitalisation, treatment and progress, including key points for decision-making.			
Competencies	ME	Sub-competencies #	HA	Sub-competencies #
	COM	Sub-competencies # Sub-competencies #	SCH	Sub-competencies #
	COL	Sub-competencies #	PROF	Sub-competencies #
	LEAD	Sub-competencies #		
Knowledge, skills and attitude required	Competence is demonstrated if the trainee has shown sufficient aspects of the knowledge, skills and attitudes described below			
	<p>Ability to apply an adequate knowledge base</p> <ul style="list-style-type: none"> Understands the importance of handover of information, especially during transition of clinical care Understands the principles of relapse prevention and recovery Demonstrates knowledge of risks associated with transfer of care, e.g. loss of information or lack of follow-up Demonstrates knowledge of the range of follow-up and community services <p>Skills</p> <ul style="list-style-type: none"> Uses effective and timely verbal and written communication, including electronic communication where appropriate Grasps and formulates the essentials of the case and the treatment plan, including relapse prevention and risk-management plans Communicates key points of decision-making Communicates and collaborates effectively with patients and families/carers in organising transfer of care Uses discretion where required and avoids pejorative language Appropriately considers confidentiality issues and consent <p>Attitudes</p> <ul style="list-style-type: none"> Uses appropriate means of communication (e.g. telephone) when required Exhibits a patient-centred approach to care Demonstrates willingness to include all appropriate stakeholders in the transfer of care Demonstrates respect for patients, other members of the multidisciplinary team, and patient advocates and their views 			
Assessment method	Continuous assessment during individual and clinical supervision			
Suggested assessment method details	Case-based discussions; multisource feedback			

COL, collaborator; COM, communicator; HA, health advocate; LEAD, leader; ME, medical expert; PROF, professional; SCH, scholar.



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