Inherent requirements for studying medicine in Australia and New Zealand

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Use of this document

This document is a guideline statement that has been accepted by all medical schools in Australia and New Zealand. All University medical schools will be provided with a copy of these guidelines and they will be implemented locally as required by individual medical schools.

Students enrolling in a medical course at these medical schools may be required to read the document and acknowledge that they understand the content. Any issues highlighted in this document must be brought to the attention of the relevant medical school. They may be required to reconfirm their status periodically during the course.

This document will be also be distributed to key stakeholders as part of an initial 12 month consultation and implementation phase. Feedback on this phase will be provided by members and stakeholders with a planned discussion at the Medical Deans Annual Conference in 2016

This document and its implementation will be formally reviewed in 2 years

***NB** This document specifically does **not** provide guidance on inherent requirements related to infectious diseases.*

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Background

The inherent requirements for medical students have been developed by the Medical Deans Australia and New Zealand (Medical Deans) and originated from those developed by the University of Western Sydney.[1] Other information has been incorporated, most notably the Higher Education Occupational Physicians (HEOPS) / Practitioners: Medical students – standards of medical fitness to train.[2]

In 2010 a review of the Australian Disability Standards for Education 2005[3] recommended the standards

> "… require tertiary institutions to publish detailed inherent requirements of every course they offer. This will allow students with a disability to select courses confident that they understand, and can reasonably expect to meet, the inherent requirements of that course."[4]

These Inherent Requirements are to be used in professional entry level medical training with the aim of providing the greatest access for students with a disability while ensuring quality patient care. These Requirements should not be seen as applying after graduation when reference should be made to the standards outlined in Good Medical Practice: A Code of Conduct[5]. Specifically, these requirements are not intended to indicate that a graduate doctor who has satisfied the inherent requirements would necessarily be able to find job in the medical field of their choice. That is, some graduates with disabilities may still find some areas of medical practice unsuitable.

Definition

An Inherent Requirement is defined as*: "the fundamental components of a course or unit, that are essential to demonstrate the capabilities, knowledge and skills to achieve the core learning outcomes of the course or unit, while preserving the*

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[1] http://www.uws.edu.au/ir/inherent_requirements/inherent_requirements_for_medicine_courses
*Developed from: Johnson, A., Allan,T., Phillips,K., Azzopardi,T., Dickson,C., Goldsmith,M & Hengstberger-Sims, C. (2011). Inherent Requirements of Nursing Education (IRONE), UWS School of Nursing & Midwifery and Student Equity & Disability Services.

[2] http://www.heops.org.uk/HEOPS_Medical_Students_fitness_standards_2013_v10.pdf

[3] http://docs.education.gov.au/system/files/doc/other/disability_standards_for_education_2005_plus_guidance_notes.pdf and http://docs.education.gov.au/system/files/doc/other/disability_standards_for_education_2005_guidance_notes.pdf

[4] http://docs.education.gov.au/system/files/doc/other/report_on_the_review_of_disability_standards_for_education_2005.pdf

[5] http://www.medicalboard.gov.au/Codes-Guidelines-Policies/Code-of-conduct.aspx

academic integrity of the university's learning, assessment and accreditation processes. Note: making a requirement compulsory does not necessarily make it an inherent requirement."[6]

The concept of reasonable accommodation or adjustment covers campus design, including the provision of equipment and access, and study course design. Applying the concept means that academic and administrative staff, wherever it is necessary, possible and reasonable to do so, take into account a student's disability and make appropriate adjustments to the learning environment to lessen the impact of the disability.[7]

Medical training takes place in a number of off-campus venues including hospitals and community practices where the medical school may not be able to make reasonable adjustments. The choice of training venue may be the best adjustment that a medical school can provide. In general however, the venues for training are the same or similar as the venues for future practice. This means that having a disability that prevents training in a particular context may have implications for practising in that context.

The AVCC has stated (1996), *"universities should have in place teaching and assessment strategies which are appropriate to students with disabilities. The assessment policies and practices of the university should make explicit provision for the use of procedural variations and/or alternative assessment strategies for students with disabilities".*[8]

Where an adjustment is unreasonable a university does not need to make the change. An adjustment can be considered unreasonable where
1. It impacts negatively on the student him/herself
2. It impacts negatively on staff or other students
3. It impacts negatively on academic standards
4. It puts others, including staff, students or patients at risk[9]

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[6] UWS Inherent Requirements Working Party, 2010
[7] Reasonable Accommodations: Strategies for teaching university students with disabilities, 1993. p.3. Macquarie University
[8] Australian Vice-Chancellors' Committee (AV-CC). (1996). *Guidelines relating to students with disabilities*. Canberra, Paragon Printers, s.4.4. p.3
[9] Based on information in http://docs.education.gov.au/system/files/doc/other/disability_standards_for_education_2005_plus_guidance_notes.pdf

The following inherent requirements are categorised under the headings of the course learning outcomes for medical programs produced by the Australian Medical Council.

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DOMAIN 1
SCIENCE AND SCHOLARSHIP: THE MEDICAL GRADUATE AS SCIENTIST AND SCHOLAR

On entry to professional practice, Australian and New Zealand graduates are able to:

1.1 Demonstrate an understanding of established and evolving biological, clinical, epidemiological, social, and behavioural sciences.

1.2 Apply core medical and scientific knowledge to individual patients, populations and health systems.

1.3 Describe the aetiology, pathology, clinical features, natural history and prognosis of common and important presentations at all stages of life.

1.4 Access, critically appraise, interpret and apply evidence from the medical and scientific literature.

1.5 Apply knowledge of common scientific methods to formulate relevant research questions and select applicable study designs.

1.6 Demonstrate a commitment to excellence, evidence based practice and the generation of new scientific knowledge.

Knowledge and cognitive skills

Consistent and effective knowledge and cognitive skills must be demonstrated to provide safe and competent medical care. Medical students must be able to process knowledge and cognition in a rapid and timely manner appropriate to the clinical context.

A medical student is expected to demonstrate the:

1. Capacity to locate appropriate and relevant information
2. Ability to process information relevant to practice
3. Ability to integrate and implement knowledge in practice

At entry a medical student's knowledge and cognition will be assessed by a variety of means including, for example, ATAR, GPA, UMAT and GAMSAT amongst other assessments.[10]

During the medical course a medical student's knowledge and cognition will be assessed by performance in assessments and during small group and clinical teaching.

Literacy

Competent literacy skills are essential to provide safe and effective delivery of medical care.

A medical student is expected to demonstrate the:

1. Ability to accurately acquire information and convey appropriate, effective messages
2. Ability to read and comprehend a range of literature and information
3. Capacity to understand and implement academic conventions and to construct written text in a scholarly manner

At entry a medical student's literacy will be assessed by a variety of means including, for example, ATAR, GPA, UMAT and GAMSAT and performance in selection interviews.

During the medical course a medical student's literacy will be assessed by performance in assessments and during small group and clinical teaching.

[10] Australian Tertiary Admission Ranking, Grade Point Average, Undergraduate Medical and Health Sciences Admission Test, Graduate Australian Medical School Admission Test

Numeracy

Competent and accurate numeracy skills are essential for safe and effective patient care.

A medical student is expected to

1. Interpret and correctly apply data, measurements and numerical criteria.
2. Prescribe safely and effectively including calculating drug dosages

At entry a medical student's numeracy will be assessed by a variety of means including, for example, ATAR, GPA, UMAT and GAMSAT.

During the course a medical student's numeracy will be assessed by performance in assessments and during small group and clinical teaching.

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DOMAIN 2
CLINICAL PRACTICE: THE MEDICAL GRADUATE AS PRACTITIONER

On entry to professional practice, Australian and New Zealand graduates are able to:

2.1 Demonstrate by listening, sharing and responding, the ability to communicate clearly, sensitively and effectively with patients, their family/carers, doctors and other health professionals.

2.2 Elicit an accurate, organised and problem-focussed medical history, including family and social occupational and lifestyle features, from the patient, and other sources.

2.3 Perform a full and accurate physical examination, including a mental state examination, or a problem-focused examination as indicated.

2.4 Integrate and interpret findings from the history and examination, to arrive at an initial assessment including a relevant differential diagnosis. Discriminate between possible differential diagnoses, justify the decisions taken and describe the processes for evaluating these.

2.5 Select and justify common investigations, with regard to the pathological basis of disease, utility, safety and cost effectiveness, and interpret their results.

2.6 Select and perform safely a range of common procedural skills.

2.7 Make clinical judgements and decisions based on the available evidence. Identify and justify relevant management options alone or in conjunction with colleagues, according to level of training and experience.

2.8 Elicit patients' questions and their views, concerns and preferences, promote rapport, and ensure patients' full understanding of their problem(s). Involve patients in decisionmaking and planning their treatment, including communicating risk and benefits of management options.

2.9 Provide information to patients, and family/carers where relevant, to enable them to make a fully informed choice among various diagnostic, therapeutic and management options.

2.10 Integrate prevention, early detection, health maintenance and chronic condition management where relevant into clinical practice.

2.11 Prescribe medications safely, effectively and economically using objective evidence. Safely administer other therapeutic agents including fluid, electrolytes, blood products and selected inhalational agents.

2.12 Recognise and assess deteriorating and critically unwell patients who require immediate care. Perform common emergency and life support procedures, including caring for the unconscious patient and performing CPR.

2.13 Describe the principles of care for patients at the end of their lives, avoiding unnecessary investigations or treatment, and ensuring physical comfort including pain relief, psychosocial support and other components of palliative care.

2.14 Place the needs and safety of patients at the centre of the care process. Demonstrate safety skills including infection control, graded assertiveness, adverse event reporting and effective clinical handover.

2.15 Retrieve, interpret and record information effectively in clinical data systems (both paper and electronic).

Verbal Communication

Effective and efficient verbal communication, in English, is an essential requirement to provide safe delivery of care during medical training.

A medical student is expected to demonstrate:

1. The ability to understand and respond to verbal communication accurately, appropriately and in a timely manner
2. The ability to provide clear and timely instructions in the context of the situation
3. Speak English clearly

Note: IELTS 7.0 (or other standard as promulgated) is required by AHPRA for international students at the point of commencing internship. One promulgated criterion (HEOPS) is the ability to be understood at 3 m in a quiet room

At entry verbal communication can be assessed during selection interviews (if used) or by other measures.

During the course a student's verbal communication will be assessed during assessments and teaching episodes.

Non-verbal Communication

Effective non-verbal communication is fundamental to medicine and needs to be respectful, clear, attentive, empathetic, honest and non-judgemental.

A medical student is expected to demonstrate:

1. The capacity to recognise, interpret and respond appropriately to non-verbal cues
2. Consistent and appropriate awareness of own non-verbal behaviours

At entry non-verbal communication can be assessed during selection interviews (if used) or by other measures

During the course a student's non-verbal communication will be assessed during assessments and teaching episodes.

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AUSTRALIA AND NEW ZEALAND

Written Communication

Effective written communication is a fundamental medical responsibility with professional and legal ramifications.

A medical student is expected to

1. Demonstrate capacity to construct coherent written communication appropriate to the circumstances.
2. Record and communicate their thoughts in a timely manner
3. Complete medical records, reports and letters in a timely manner

At entry written communication can be assessed as part of the selection processes

During the course a student's written communication will be assessed during written examinations and during teaching episodes

Vision

Adequate visual acuity is required to provide safe and effective medical care.

A medical student is expected to demonstrate

Sufficient visual acuity to perform the required range of skills, including

a. Reading small print on ampoules or similar
b. Reading a monitor across a bed
c. Responding to visual alarms

Note: One set of promulgated criteria (HEOPS) state that a visual acuity with maximal correction of N8 and/ or 6/18 (or better) is required for the practice of medicine.

Students whose vision is insufficient to meet these criteria or who have significant other visual problems (such as visual field defects, nystagmus, etc) may require assessment by an ophthalmologist.

At entry a medical student's visual difficulties will be documented through self-declaration.

During the course a medical student's visual difficulties will become apparent during assessments and clinical training.

Hearing

Adequate auditory ability is required to provide effective and safe medical care.

A medical student is expected to demonstrate:

1. Sufficient aural function to undertake the required range of tasks.
2. The ability to work effectively in the emergency situation

Note: One set of promulgated criteria (HEOPS) state the following.
A student, wearing functioning hearing aids (if required), should demonstrate

1. The ability to understand the human voice at 1 m.
2. Less than 40 db loss across speech frequencies.

At entry a medical student's hearing difficulties will be documented through self-declaration or during the selection interview.

During the course a medical student's hearing difficulties will become apparent during assessments, small group teaching and clinical training.

Touch

Sufficient tactile ability is required to perform competent and safe medical care.

A medical student is expected to demonstrate:

1. Sufficient fine touch to undertake the required range of skills and clinical assessments, such as palpation of vessels and organs, and to estimate the size of skin lesions

At entry a medical student's difficulties with touch will be documented through self-declaration.

During the course a medical student's difficulties with touch will become apparent during assessments and clinical training.

Mobility and gross motor skills

Mobility and gross motor skills are required in medicine to undertake appropriate clinical care.

A medical student is expected to demonstrate:

1. The ability to perform gross motor skills to undertake a full physical examination, cardiopulmonary resuscitation and to function within scope of practice
2. Independent mobility in order to attend medical emergencies when required

One set of promulgated criteria (HEOPS) indicate a student must

1. Demonstrate the ability to undertake a full physical examination avoiding injury to patients, colleagues and self
2. Possess one fully functional arm and the other capable of providing support

At entry a medical student's impaired mobility will be apparent through self-declaration or during the selection interview.

During the course a medical student's impaired mobility will become apparent during clinical skills training and clinical practice

Fine motor skills

Medicine is a profession that requires manual dexterity, and possession of fine motor skills is fundamental in providing adequate clinical care.

A medical student is expected to demonstrate:

1. The ability to use fine motor skills to provide safe effective diagnosis, treatment and clinical care.
2. The ability to undertake a full physical examination without harming patient or self.
3. One fully functional arm and the other capable of providing support.

Medical students, by the end of their training should be able to carry out the following; Venepuncture, wound suture, intravenous cannulation and other practical procedures as determined by the School

At entry a medical student with impaired fine motor skills will be documented through self-declaration or during the selection interview.

During the course a medical student with impaired fine motor skills will become apparent during assessments, clinical skills training and clinical practice

Sustainable performance

Medical practice requires both physical and mental performance at a consistent and sustained level to meet individual student needs over time. Medical courses are typically integrated over the course of a year and are structured to ensure progressive development of attributes. Fragmentation of the course, for example through prolonged absences during parts of the year or during parts of a day, hinders such learning. A medical student can expect to attend for 35 – 40 hours per week for over 40 weeks a year. A medical student will be required to undertake the course in a fulltime, continuous fashion.

A medical student is expected to demonstrate:

1. Consistent and sustained level of physical energy to complete a specific task in a timely manner and over time
2. The ability to perform repetitive activities with a level of concentration that ensures a capacity to focus on the activity until it is completed appropriately
3. The capacity to maintain consistency and quality of performance throughout the designated period of duty
4. The ability to undertake the course as a fulltime student

At entry a medical student's inability to sustain performance will be documented through self-declaration.

During the course a medical student's difficulties with sustainable performance will become apparent during the course.

Interruptions to consciousness

Medical practice requires the student to be conscious and aware at all times when interacting with patients. Unexpected interruptions to consciousness place patients at risk.

A medical student is expected to demonstrate:

That there must be no risk of interruptions of consciousness that would present a risk to patients

Poorly or uncontrolled epilepsy in a medical student will put patients at significant risk. Narcolepsy and repetitive fainting will require careful assessment and treatment.

At entry a medical student's experience of interruptions to consciousness will be documented through self-declaration.

During the course a medical student's difficulties with interruptions to consciousness will become apparent during the course.

DOMAIN 3
HEALTH AND SOCIETY: THE MEDICAL GRADUATE AS A HEALTH ADVOCATE

On entry to professional practice, Australian and New Zealand graduates are able to:

3.1 Accept responsibility to protect and advance the health and wellbeing of individuals, communities and populations.

3.2 Explain factors that contribute to the health, illness, disease and success of treatment of populations, including issues relating to health inequities and inequalities, diversity of cultural, spiritual and community values, and socio-economic and physical environment factors.

3.3 Communicate effectively in wider roles including health advocacy, teaching, assessing and appraising.

3.4 Understand and describe the factors that contribute to the health and wellbeing of Aboriginal and Torres Strait Islander peoples and/or Māori, including history, spirituality and relationship to land, diversity of cultures and communities, epidemiology, social and political determinants of health and health experiences. Demonstrate effective and culturally competent communication and care for Aboriginal and Torres Strait Islander peoples and/or Māori.

3.5 Explain and evaluate common population health screening and prevention approaches, including the use of technology for surveillance and monitoring of the health status of populations. Explain environmental and lifestyle health risks and advocate for healthy lifestyle choices.

3.6 Describe a systems approach to improving the quality and safety of health care.

3.7 Understand and describe the roles and relationships between health agencies and services, and explain the principles of efficient and equitable allocation of finite resources, to meet individual, community and national health needs.

3.8 Describe the attributes of the national systems of health care including those that pertain to the health care of Aboriginal and Torres Strait Islander peoples and/or Maori.

3.9 Demonstrate an understanding of global health issues and determinants of health and disease including their relevance to health care delivery in Australia and New Zealand and the broader Western Pacific region.

See statements relating to *Verbal Communication* and *Written Communication* on pages 11 and 12

DOMAIN 4
PROFESSIONALISM AND LEADERSHIP: THE MEDICAL GRADUATE AS A PROFESSIONAL AND LEADER[11]

On entry to professional practice, Australian and New Zealand graduates are able to:

4.1 Provide care to all patients according to "Good Medical Practice: A Code of Conduct for Doctors in Australia" and "Good Medical Practice: A Guide for Doctors" in New Zealand.

4.2 Demonstrate professional values including commitment to high quality clinical standards, compassion, empathy and respect for all patients. Demonstrate the qualities of integrity, honesty, leadership and partnership to patients, the profession and society.

4.3 Describe the principles and practice of professionalism and leadership in health care.

4.4 Explain the main principles of ethical practice and apply these to learning scenarios in clinical practice. Communicate effectively about ethical issues with patients, family and other health care professionals.

4.5 Demonstrate awareness of factors that affect doctors' health and wellbeing, including fatigue, stress management and infection control, to mitigate health risks of professional practice. Recognise their own health needs, when to consult and follow advice of a health professional and identify risks posed to patients by their own health.

4.6 Identify the boundaries that define professional and therapeutic relationships and demonstrate respect for these in clinical practice.

4.7 Demonstrate awareness of and explain the options available when personal values or beliefs may influence patient care, including the obligation to refer to another practitioner.

4.8 Describe and respect the roles and expertise of other health care professionals, and demonstrate ability to learn and work effectively as a member of an inter-professional team or other professional group.

4.9 Self-evaluate their own professional practice; demonstrate lifelong learning behaviours and fundamental skills in educating colleagues. Recognise the limits of their own expertise and involve other professionals as needed to contribute to patient care.

4.10 Describe and apply the fundamental legal responsibilities of health professionals especially those relating to ability to complete relevant certificates and documents, informed consent, duty of care to patients and colleagues, privacy, confidentiality, mandatory reporting and notification. Demonstrate awareness of financial and other conflicts of interest.

[11] At the time of publication the Inherent Requirement Working Group acknowledges the parallel work being undertaken in this domain by the AMC Professionalism Working Group. Recommendations by this group may lead to future modifications of the guidelines contained in Domain 4 of this document

Ethical behaviour

Medical students are part of a profession governed by codes, guidelines and policies where students (and practitioners) are both accountable and responsible for ensuring professional behaviour in all contexts.

A medical student is expected to

1. Adhere to the applicable Codes, Guidelines and Policies of the Medical Board of Australia, the Medical Council of New Zealand and other relevant statutory authorities at all times
2. Behave ethically at all times including times of significant stress
3. Satisfactorily complete the required Criminal Record Check and self-declaration

At entry all medical students will be required to complete a Criminal Record Check and (if required) a self-declaration of previous ethical and/or dishonest behaviour. The self-declaration is to be in line with that completed by each registered practitioner at the time of re-registration. If there are previous misdemeanours, the onus will be on the student to convince the School that such misdemeanours no longer pose a substantial risk.

During the course medical students are required to
Complete a Criminal Record Check (CRC) as required – currently every three years (NZ)
Complete a self-declaration at the commencement of each academic year.

Monitor and manage own health

Behavioural stability is the ability of a medical student to monitor and manage their own mental and physical health.

Behavioural stability is required to function and adapt effectively and sensitively in a demanding role.

A medical student is expected to

1. Demonstrate sufficient behavioural stability in order to work constructively in a diverse and changing academic and clinical environment
2. Display the resilience and flexibility to satisfactorily deal with the demands of being a medical student
3. Monitor their own health and behaviour and to seek help when required

At entry all medical students can demonstrate their ability to meet this requirement by self-declaration.

During the course medical students will demonstrate their compliance with this requirement through annual self-declaration and by assessment of their behaviour.

Legal

Medical practice is mandated by specific legislation to enable the safe delivery of care.

A medical student is expected to comply with Australian or New Zealand Law, professional regulations and scope of practice.

At entry all medical students must complete a Criminal Record Check.

During the course medical students can demonstrate compliance with annual self-declaration at the time of entry into the clinical setting.

Note – in New Zealand a new Criminal Record Check is required every three years