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Policy Document

Medical Schools Admissions

Executive Summary

As at 2024, the requirements for admission into an Australian medical program involve the weighted assessment of 3 key components at most universities: academic performance in a previous degree (ATAR, GPA), an aptitude test score (UCAT, GAMSAT), and performance in an interview/portfolio component. Admission processes are either facilitated by admission centres (e.g. UAC, GEMSAS), independently by medical programs, or a combination of both. Some universities employ further metrics such as psychometric testing in their admissions.

Medical school admission remains an inequitable process. The key contentions of this policy highlight a number of these challenges, namely – the lack of admission criteria transparency from universities, challenges with the admission process, inequitable access to entry among disadvantaged candidates, and barriers to admission for rural and remote candidates.

Transparency

Undergraduate and postgraduate medical admissions are made transparent to students on the recommendation of the Australian Government. An ongoing challenge with transparency is the discretionary variability in admission criteria between admission cycles, and between medical programs. There remains limited transparency around the medical school admission processes, which leads to opportunities for errors and non-transparent practices. In addition, there is limited transparency on the academic, and interview score cutoffs to be admitted. AMSA calls upon Australian Medical Schools to communicate transparently on information related to the admission process – including costs, prerequisites and requirements, academic and interview score cutoffs for acceptance, and other relevant key details.

Challenges with The Admission Process

In the admission process, the most pressing issue is a growing inequity in access to medical school for socioeconomically disadvantaged students. The cost of aptitude tests required for admission (UCAT, GAMSAT) has been increasing steadily over the years. In 2024, the UCAT costs \$325 to register for, while the GAMSAT costs \$549. Adding on the additional burden of private preparatory material, it imposes inaccessibility for financially disadvantaged students. Further costs are incurred for psychometric tests required for admission to some programs.

The COVID-19 pandemic has increased the frequency of virtual interview use for admission. This change combats many financial, environmental, and opportunistic

burdens traditionally associated with in-person interviews, such as travel cost. However, new challenges such as inequitable internet access, and ongoing concerns about a lack of clear interview guidelines given to prospective applicants, and the short notice given to applicants to attend interviews, raise both new and ongoing concerns about the equity of the interview process.

International candidates face significantly different challenges to domestic students. Many universities require candidates to complete English Language Proficiency Tests that incur additional costs. Aptitude testing for international students, including the ISAT, and MCAT, remain costly and have varying levels of prerequisite knowledge for success. International candidates incur the further cost and time of travelling internationally to attend interviews. These challenges question the fairness of the admission process for international applicants.

AMSA calls upon GEMSAS Administration to ensure that the transferral of interview scores between universities under the one interview policy is transparent, fair, and equitable. Pearson VUE and ACER should ensure equal opportunities for applicants sitting medical school admission aptitude tests (UCAT, GAMSAT) by ensuring that testing conditions and technological standards are consistent across testing sites.

Accessibility for Disadvantaged Candidates

Medical students from low socioeconomic (SES) backgrounds are under-represented. This disparity is attributed to a culture that discourages students from low SES background from applying to medical school, compounded by financial, and other barriers. Some universities implement access schemes for disadvantaged candidates. However, these initiatives often fail to address the underlying disparities in access for students from low SES backgrounds.

Access to medical school is also reduced for candidates from disadvantaged backgrounds. These include, candidates with disabilities, candidates from the LGBTQIASB+ community, and candidates from Aboriginal and Torres Strait Islander backgrounds. Provided that most medical students graduate to work as medical practitioners serving populations consistent with their own backgrounds – a disproportionate representation of socioeconomic status in student cohorts leads to downstream healthcare disparities for disadvantaged populations.

AMSA calls upon Australian Medical Schools to reduce barriers to entry for applicants from low SES backgrounds by decreasing the financial burden of application fees and increasing funding in scholarships available to students from low SES backgrounds.

Admission of Rural and Remote Candidates

Medical workforce shortages in rural and remote areas remains a national issue. The current government quota mandating 25% of medical school admissions to be students from rural or remote backgrounds, is out of proportion with Australia's rising rural and remote population. The Bonded Medical Program (BMP) is a national initiative that seeks to reduce this disparity by mandating a return-of-service obligation

for 28.5% of candidates each year, to work in a rural or remote area after graduation. Evidence suggests that the BMP has been inadequate in addressing the national shortage of doctors in rural and remote areas, with few graduates completing their return of service obligation, and even fewer continuing to work in rural and remote areas following completion of their return of service obligation.

AMSA calls upon Australian Medical Schools to support rural/remote background students by adhering to rural admission quotas and providing accessible information about entry schemes and scholarships available for prospective rural and remote background applicants.



Policy Points

AMSA calls upon:

1. All Australian Medical schools to:

- a. Maintain evidence-based entry criteria for entry to medical courses;
- b. Maintain transparent communication of admissions processes and cut-offs for acceptance into programs;
- c. Review selection criteria and methods, guided by evidence-based practice and societal health care needs;
- d. Ensure that adequate information about, and access to, prerequisites and application requirements for medical school entry be made available to all prospective candidates;
- e. Acknowledge that educational opportunities decrease as geographical remoteness increases, and implement recruitment strategies accordingly;
- f. Seek to actively reduce any unnecessary financial and logistic stress associated with travel for interview and application;
- g. Seek to actively reduce the financial burden caused by admissions through:
 - i. Decreasing application and administration fees;
 - ii. Increasing scholarships awarded to low socioeconomic students;
- h. Collaborate with schools and communities to increase engagement with the medical admissions process by:
 - i. Appealing to under-resourced schools and communities;
 - ii. Increasing engagement programs with under-resourced schools which involve engagement by current medical students;
- i. Release and adhere to clear timelines and criteria regarding their admissions processes;
 - i. Providing clear information around the expected timeline of interview offer releases, admissions offer releases specific to the institution, and including dates of “offer rounds” if applicable;
 - ii. Release clear criteria for consideration of admissions;
- j. Address rural shortages and provide support for rural applicants by:
 - i. Adhering to rural-origin quotas;
 - ii. Ensuring medical school staff and/or community members with a rural background are consulted on the application process;
 - iii. Providing easily accessible and accurate information regarding support, scholarship and entry schemes regarding

- support, scholarship and entry schemes to prospective students;
- k. Provide adequate financial, logistical and wellbeing support to disadvantaged prospective students during the medical admissions process;
 - i. Waive admissions fees for applicants from under-represented and under-resourced backgrounds;
 - l. Ensure equitable access bonuses awarded to applicants during the admissions process to medical school are evidence-based and improve the quality of healthcare delivery;
 - m. Ensure queer-competent support services and scholarships are available within medical schools.;
 - n. Reconsider the continuation of internalisation policies that excessively limit choices of University for prospective medical students;
 - o. Ensure that the minimum academic and interview performance standards for provisional entry students are consistent with postgraduate entry students;
 - p. Provide transparent information about the criteria that medical schools used to evaluate their applicants' interview performance pre-, and post-interview;
 - i. Ensure medical schools provide applicants with post-interview feedback detailing a breakdown of their performance in the interview;
 - q. Provide the option for delivery of all medical program application interviews online regardless of location;
 - r. Adopt a system similar to the English language requirements for admission and hold English language proficiency examination as a last line of proving English proficiency;
 - s. Accept results of the University Clinical Aptitude Test (UCAT) from international undergraduate applicants as an alternative to the International Student Admissions Test (ISAT);
 - t. Re-evaluate the usefulness of the Medical College Admission Test (MCAT) and ISAT for medical applicant admission and redundancy when compared to academic predictors such as academic score and interview performance;
 - u. Review the necessity for differing standardisation test between undergraduate and postgraduate enrolment;
 - v. Provide upfront transparency about miscellaneous costs during and post-admissions e.g. acquisition of first aid qualification, mask fit-

testing, immunisation and documentation costs, and purchasing of equipment.

2. Graduate entry medical schools to:
 - a. Continue to utilise a centralised application portal for all domestic graduate medicine applications;
 - b. Integrate all postgraduate medical program admissions into the Graduate Entry Medical Schools Admission System (GEMSAS) while maintaining autonomy over the admissions process with special provision of the admissions process for Aboriginal and Torres Strait Islander applicants;
 - c. Ensure fair practice of the one interview policy if continued, by adopting standardised interview components for core competencies, structures and attributes, as determined by GEMSAS consortium universities.
3. The Australian Council for Education and Research (ACER), the various state & territory tertiary admission authorities, Pearson VUE, Graduate Entry Medical School Admissions System (GEMSAS), and other relevant stakeholders to:
 - a. Pursue active measures to minimise candidate costs associated with undertaking admissions tests;
 - i. Implement subsidised programs for students in financial need, students from Aboriginal and Torres Strait Islander backgrounds, rural background students, as well as other priority populations;
 - b. Ensure that universal standards are maintained across testing sites regardless of geographical location or time taken in order to ensure fairness in assessment. This includes, but is not limited to:
 - i. Ensuring consistent technological standards, testing environments, and access to supplementary on-site resources;
 - ii. Ensure that testing centres are available and accessible to all prospective students to reduce travel barriers and ensure equitable access for all candidates;
 - iii. Ensure that students with disabilities are provided with satisfactory adjustments during test-sitting processes (e.g. time adjustments, scribe support) to ensure equitable access to admissions;
 - c. Reduce barriers to medical school application testing for applicants from rural backgrounds, including implementing increased numbers of locations for test sitting in rural and remote areas;

- d. Integrate all postgraduate medical program admissions in the pre-existing Graduate Entry Medical Schools Admission System (GEMSAS) national portal;
 - i. Provide flexibility within this national portal for a diversity of entrance pathways including differing interview processes;
 - e. Provide a reasonable quantity of free and high-quality test preparation material for all candidates to sufficiently do well without paid material;
 - f. Ensure transparent, ongoing reviews of all standardised tests (UCAT, GAMSAT, ISAT, MCAT), and their predictive value of medical education success.
4. The Graduate Entry Medical School Admission System (GEMSAS) administration to:
- a. Identify and work to minimise inefficiencies within the application process and to adhere to the admissions timeline;
 - b. Pursue active measures to minimise the costs incurred by candidates during the admission process;
 - c. Provide additional support to applicants from backgrounds with a reduced level of access to medical education with the aim to reduce barriers to medical school applications;
 - d. Ensure transferal of interview scores between universities under the one interview policy is transparent, fair and equitable;
 - e. Publish the methods and outcomes of interview score transferals under the one interview policy;
 - f. Continue to ensure transparency in the application process;
 - g. Ensure ongoing review of the process, pursue improvement and collect feedback from prospective and current medical students;
 - h. Allow autonomy for medical schools to define and apply their own selection criteria;
5. Medical Deans Australia and New Zealand (MDANZ) to:
- a. Investigate the implementation of an undergraduate application portal for students applying to interstate universities, with special provisions of the admissions process for Aboriginal and Torres Strait Islander students;
 - b. Review and research medical admissions standards, and ensure that they assess applicants in a fair, equitable and accessible manner;
 - c. Review literature on socio-demographic factors (such as socioeconomic status, disability, and LGBTQIASB+ status) amongst Australian medical students, and how barriers for these groups could be minimised during the medical school admissions process;
 - d. Make formal statements on ways in which they commit to being LGBTQIASB+ inclusive during each medical admissions cycle through

eliminating stigmatising perceptions of queerness and implementing queer voices in the admission team.

6. Australian Government to:

- a. Subsidise admission entry tests, fund outreach programs to underrepresented groups of society, and fund research into disability admission;
- b. Implement the option for candidates to defer the registration costs of sitting aptitude tests (GAMSAT, UCAT) to their HECS debt;
- c. Implement concession for GAMSAT and UCAT test registrations based on pre-existing Medicare benefit scheme status for domestic students to qualify;
- d. Consider the feasibility of implementing a Disability Entry Pathway;
- e. Continue to ensure transparency of medical school admissions requirements, including mandatory reporting of information that assists prospective medical students in understanding clearly outlined interview and admission cutoffs;
- f. Investigate the feasibility of an independent body to oversee the medical admissions process, ensuring that individual medical school admission schemes are conducted in a fair and equitable manner;
- g. Support medical school scholarship programs, particularly those that increase access for students from disadvantaged backgrounds (e.g. scholarships for students from rural and remote backgrounds);
- h. Regulate costs for relevant parties that administer standardised testing;
- i. Regulate the cost of applications to universities/admissions centres.

Background

Admission Process (Undergraduate and Postgraduate Systems)

Overview

As at 2024, the requirement for admission into an *undergraduate* medical program is based on the weighted assessment of a candidate's Australian Tertiary Admission Rank (ATAR), University Clinical Aptitude Test (UCAT) score, and/or performance in an Interview. Some universities further employ the use of a psychometric test used for admissions. The relative weighting or inclusion of each criteria is at the discretion of each medical program. In most universities, interviews take the form of a Multi Mini Interview (MMI), a semi-structured interview, a "hybrid" interview, or alternative. Some universities also require completion of prerequisite high school subjects, including, but not limited to – English, Chemistry, Biology, and/or a Mathematics subject.

For admission into *postgraduate* medical programs, the Graduate Entry Medical Schools Admission System (GEMSAS) is the body facilitating application for ten medical schools in Australia. Three postgraduate programs, including Flinders University, Monash University, and The University of Sydney, conduct medical school admissions processes independently of the GEMSAS. Admission into a postgraduate medical school is based on the weighted assessment of a candidate's Grade Point Average (GPA) in their previous degree, Graduate Medical School Admissions Test (GAMSAT) score, and/or performance in an interview.

Selection of prospective candidates into medical school programs is a critical assessment given most medical students will progress to work as medical practitioners. This calls for the need of an admission process that is flexible and responsive to Australia's healthcare needs.

Transparency

Undergraduate and postgraduate medical admissions are made transparent to students on the recommendation of the Australian Government, which mandate universities to report on the selection criteria for an upcoming intake, minimum entry mark (i.e. lowest ATAR/GPA) for offers made in the previous year, numbers of domestic and international students accepted in the previous year, and guidance on alternative admissions schemes (e.g. for students with a disability) [1-2].

An ongoing challenge with transparency is the discretionary variability in admission criteria between admission cycles, and between medical programs. The Tertiary Education Quality Standards Association makes reports and recommendations on admission transparency [3], for which higher education providers are made



accountable [1]. However, there remains no external regulation for the university admissions process. Therefore acceptance into medical school is conducted at the discretion of institutions. The absence of an external regulatory body overseeing admission into medical programs, provides some opportunities for errors and non-transparent practices during the admission process.

Aptitude Testing

The UCAT

The University Clinical Aptitude Test for Australia and New Zealand (UCAT ANZ) is a 2-hour computer-based assessment, designed for undergraduate medical admissions. It comprises five sections: Verbal Reasoning, Decision Making, Quantitative Reasoning, Abstract Reasoning, and Situational Judgement. Applicants are permitted to take the UCAT once annually. However, certain universities impose limitations on the maximum number of attempts permitted for admission into their programs.

The collective aims of the UCAT are as follows [4]:

- To achieve greater fairness in selection by helping schools discriminate between candidates with equivalent qualifications;
- To widen participation in medical, dental and clinical sciences training of under-represented social groups;
- To identify the characteristics in applicants which will make them good dentists, doctors and clinicians.

In spite of the mission of the UCAT, there is growing sentiment that an over reliance on the test is not necessarily achieving the goal of a fair and equitable admissions process that identifies the most suitable doctors [5]. As of 2024, the test incurs a fee of \$325 for tests taken in Australia and New Zealand [6].

The UCAT offers a reduced concessional fee of \$199 for those who are named on a current Australian Health Care Card (HCC) or Pensioner Concession Card (PCC), issued by Centrelink [7]. In spite of this scheme, growing concerns are emerging over the correlation between the use of preparatory materials/courses/tuition and UCAT scores, which leads to inequitable access [8]. Of note, candidates of higher socioeconomic status are noted to have the means to afford private preparatory materials averaging \$300 to over \$2000 [8].

The transition to an online platform further disadvantages the most vulnerable and in-need communities, due to relatively poor technological familiarity and digital literacy. For instance, inconsistency in technology, resources and testing

environments are of growing concern as this may further engender advantage/disadvantage at certain sites.

The GAMSAT

The Graduate Medical School Admissions Test (GAMSAT) is developed by the Australian Council for Educational Research (ACER) in conjunction with GEMSAS [9]. The GAMSAT is an aptitude test divided into three sections: Section 1 - Reasoning in Humanities and Social Sciences, Section 2 - Written Communication, and Section 3 - Reasoning in Biological and Physical Sciences [9]. An applicant can sit the GAMSAT twice each year, and utilise a score to apply during an application period in the following 4 years in Australia [9].

From 2024, the GAMSAT is divided into two (2) separate test windows. The first test window is the Written Communication Section (Section 2) and is conducted via remote proctoring for all test takers [9]. The second test window involves both Section 1 and Section 3, and is conducted at an in-person test centre. Exam duration is typically 100 minutes for Section 1, 65 minutes for Section 2, and 150 minutes for Section 3 [9].

The GAMSAT costs \$549 per sitting (with a \$110 late registration fee) – with most applicants sitting the exam multiple times [9]. Practice questions are included in the registration fee, and ACER provides two types of additional purchasable GAMSAT preparation materials: e-booklets (PDFs), and online interactive practice tests for all sections. E-books include sample questions, practice questions, and 3 purchasable Practice Tests priced between \$AUD27-45 [9]. Timed interactive online tests are available for purchase at between \$AUD20-60 [9]. Many students also undertake private tuition with the basic preparation programs costing up to and over \$1,000 per exam period [10-13].

The Interview

Medical School Interviews

Offers for interviews for undergraduate admission may be based on a combination of UCAT and ATAR, predicted ATAR, applications, or solely on one of these elements. For admission into postgraduate medicine through GEMSAS, one Interview score is used across multiple universities, known as the "one interview policy". Additionally, semi-structured panel interviews exist for both undergraduate and postgraduate admissions applicants with undergraduate medical applicants completing an interview separately at each of the individual institutions they receive offers from. Similarly, postgraduate medical programs utilise an MMI to assess varying

communication, leadership and teamwork skills. Some universities incur a further psychometric-style test as part of their admissions process.

Inconsistencies arise in the delivery of questions between universities with the number of stations varying between 5-10 and time per station and rest time varying between 5 - 10 minutes and 1 - 7 minutes respectively [14]. Additionally, the number of rest stations, the inclusion of reading time within the rest, prior group tasks, and delivery of a short presentation requirement, also differs between the universities [14]. MMIs are designed to assess a certain candidate's qualities that would predict their success as a medical practitioner upon graduation. There is limited transparency in the criteria used to evaluate candidate performance in the interview, including limited feedback on interview performance.

With many students receiving more than one interview offer through the various application portals, the environmental and financial impact of travelling to partake in this admission requirement is substantial [15]. Additionally, students have a short-time frame to accept and attend their interview, further impacting applicants with financial disadvantage. Interview travel costs can range well into the thousands when factoring in transport, accommodation, and other associated expenses.

Online Interviews

Following the COVID-19 pandemic, more research has emerged in relation to the impacts of video-based interviewing from a financial [16], environmental and opportunistic standpoint, which is particularly relevant in the context of medical school admissions [17-18]. Virtual interviews save time and cost, increase efficiency and decrease stress-related travel [16]. However, online interviews remain limited by their incapacity to allow candidates to express themselves fully, including in non-verbal communication [17]. Further issues include online interviews causing interviewees anxiety and frustration beyond what is normally encountered in conventional in-person interviews, which may be attributed to feelings of inadequacy due to a candidate's reduced capacity to communicate their personality through a screen [17].

One study found no significant difference between interview scores in MMIs conducted virtually and face-to-face [17]. However, there are also concerns for technical biases with regards to the impact of video quality, which may be due to device or internet limitations, on equitable admission, particularly in rural and underserved areas [18].

At the time of writing, many universities, of particular note, those belonging to the GEMSAS Consortium, continue to do in-person interviews [19]. While attending only

one in-person interview reduces the financial and opportunistic burden on applicants, it remains financially taxing and time-consuming for students who live rurally or remotely [16]. There is limited disclosure of interview formats for universities that are not part of the GAMSAT/GEMSAS Consortium, and this information is usually only released close to interview dates. Many undergraduate entry programs continue to do online interviews.

Interviews for International Students

Following the COVID-19 pandemic, most universities have resorted to online modalities for interviews for international students. This has increased equitable access for international candidates, as international applicants were previously required to incur great costs to travel internationally to attend interviews for many Australian Universities [20-22]. The interview process for international applicants varies between institutions offering medical programs.

Provisional Entry from ATAR

Universities that guarantee provisional entry admissions into postgraduate MD programs for high school leavers (given applicants fulfil certain undergraduate requirements), highlight an alternative pathway to postgraduate medicine for many high school leavers [23-28]. The provisional entry pathways to medicine are offered across 6 programs in Australia [23-28]. Most of these provisional entry programs place a significant emphasis on high ATAR and/or UCAT performance for admission, relative to many undergraduate medicine alternatives for high school leavers. In some cases, provisional entry pathways forego an interview [23-24].

There is significant contention surrounding whether guaranteed entry into medical programs should be endorsed based on ATAR alone. There is evidence [29] to suggest that the ATAR is not selective for the diverse skills required for success in professional practice. The interview is a valuable predictor of performance in clinical years [30], while national admission tests are valuable predictors of performance in pre-clinical years [30]. Selection into medicine is a critical assessment given that most students become doctors [31]. As such, the impact of foregoing an interview on workplace performance requires further research [31].

Internalisation

Internalisation is the process of reserving positions for applicants who have completed undergraduate education at the university for which they are applying for medical program admission. Internalisation of medical education leads to reduced accessibility for students who do not meet the requirements for these postgraduate programs [19, 84-88]. Internalisation includes mandating prerequisites for postgraduate medical courses that can only be attained within undergraduate

courses offered by the same university, or offered by few other Universities [19, 84-85]. The practice of internalisation of medical school education limits the freedom of applicants in accessing all medical programs equally irrespective of their undergraduate institution [19, 84-88].

Internalisation also occurs at entry to undergraduate programs, where candidates are limited in applying to undergraduate programs if they have previously attained education elsewhere [19, 84-86]. The process of internalisation raises questions about financial incentives for institutions to encourage undergraduate study through themselves, and the prospects and value of qualifications with specific internalisation pathways should a post-graduate applicant be rejected from entry into a medical program upon completion of this study [19, 84-88]. It further restricts a society's needs-based admission criteria for medical students and prospective doctors.

Modified entry through accessibility pathways

Some institutions award bonuses as additional weighting to students with relevant clinical and work experience, financial disadvantage, rural and remote residency, and study adjustments prior to interview offer. However, bonuses provided to students with relevant prior clinical experience and prior study at the same university creates a barrier to accessing medical education, for students educated through other institutions.

Admission for International Candidates

English Language Requirements

Demonstrated proficiency in the English language is one of the prerequisites for applying to Australian medical schools. Universities across Australia accept results from many different language proficiency exams. Language requirements for medical school admission are set by individual universities, and therefore vary between institutions [32].

Commonly accepted English proficiency tests include: the International English Language Testing System (IELTS), Cambridge English: Advanced (CAE), Pearson Test of English (PTE), Academic and Occupational English Test (OET), and Test Of English as a Foreign Language (TOEFL) [32]. Assessed components vary between exams, but generally include Reading, Writing, Listening and Speaking components [32]. Scoring systems also vary between exams [33, 34].

International students that have completed their secondary or higher education studies in an English-speaking country recognised by the prospective University, may not be required to sit English proficiency tests for their application [32, 35].

The need to prove English proficiency is also seen in some state internship applications and it is compulsory for all doctors practising in Australia during AHPRA registration [36-38]. AHPRA English language criteria includes visa English requirements or one of: 1) completion of primary, secondary and tertiary education in a recognized country, 2) two years of secondary and tertiary education in a recognised country or 3) six years of continuous study in a recognised country [38]. Failing to meet any of these three options would then indicate the need for additional English proficiency examinations [39]. The use of proficiency examinations in this system is seen as a last resort for providing evidence of English proficiency.

It is important that students meet the requirements set by the Department of Home Affairs [40]. International students seeking work in Australia following completion of study may need to repeat the English proficiency test to receive AHPRA registration independent of the medical school admissions process [38].

Foreign Examination Requirements

Both undergraduate and postgraduate medical programs require standardised testing as part of medical school applications. In parallel with domestic counterparts that sit the UCAT and GAMSAT (which may also be sat by international applicants), international applicants must sit the International Students Admissions

Test (ISAT) (for undergraduate entry) or the Medical College Admissions Test (MCAT) (for postgraduate entry)[38, 40-41].

The ISAT

The ISAT is a 3-hour, online multiple-choice assessment independently developed by ACER, assessing critical reasoning and quantitative reasoning [42]. The ISAT does not require prerequisite knowledge as information relevant to answering questions are provided in-text [42]. The ISAT scores Critical Reasoning (CR), Quantitative Reasoning (QR) and Overall Reasoning (OR) on a scale of 100-200 per component – this score is then represented as a percentile to allow comparison for admission purposes [43]. As of 2024, registration for the ISAT costs approximately \$427 AUD, although the cost may vary between countries [42]. Preparation courses and practice papers provided by third parties incur an additional cost for prospective students, which could factor into inequitable access for students who cannot afford these resources.

The MCAT

The MCAT is a standardised multiple-choice examination assessing problem-solving, critical thinking, and prerequisite knowledge of natural, behaviour, and social science concepts [44]. The MCAT consists of 230 multiple-choice questions over 4 sections:

- Section 1: Biological and Biochemical Foundations of Living Systems (BBLS)
- Section 2: Chemical and Physical Foundations of Biological Systems (CPBS)
- Section 3: Psychological, Social, and Biological Foundations of Behaviour (PSBB)
- Section 4: Critical Analysis and Reasoning Skills.

The total exam duration is 6 hours and 15 minutes, and total score ranges between 472 and 528, with a 50th percentile score of 500 [44]. As of 2024, the registration cost is \$335 USD, with an additional cost of \$120 USD if the candidate is taking the exam outside of the USA or Canada [45]. The MCAT assesses prerequisite knowledge. As such, additional costs may be optionally incurred for third party preparatory courses and materials. The cost of registering for *the ISAT* and *the MCAT* remains an issue of accessibility.

Accessibility

Medical Students with Disabilities

Medical applicants with disabilities continue to face significant barriers to admission into medical schools. AMSA's advocacy regarding this is outlined in the Policy titled "Medical Students with Disabilities (2022)" [46].

Aboriginal and Torres Strait Islander Students

In 2023, Aboriginal and Torres Strait Islander students comprised 150 (4.22%) of all domestic commencements, a 70% increase from 2018 [47]. AMSA's advocacy regarding Aboriginal and Torres Strait Islander medical student admissions is detailed in the Policy titled "Aboriginal and Torres Strait Islander Medical Student Recruitment and Retention (2023)" [48].

LGBTQIASB+ Students

LGBTQIASB+ (Lesbian, Gay, Bisexual, Transgender, Queer Intersex, Asexual & Aromantic, Sistergirl, and Brotherboy+) medical applicants exposed to marginalisation often experience barriers to the medical school admissions process. The socio-cultural discrimination faced by LGBTQIASB+ applicants in overt and subtle forms of microaggressions has adverse outcomes that affect the medical school application process for these prospective students [49]. LGBTQIASB+ individuals report higher levels of homelessness and living below the poverty line, either as a direct trauma from prejudiced attitudes or as an exacerbating factor of ancillary social determinants of health [50-54]. The stress of experiencing prejudice, both internal and external, are linked to poorer health and reduced access to healthcare services for LGBTQIASB+ individuals, which have an impact on academic performance and community involvement [55]. Enshrining LGBTQIASB+ health into the medical curriculum supports future doctor's ability to take care of queer patients. This ensures healthier future queer medical students apply to medical school, perpetuating a positive cycle.

The medical student demographic must reflect the community they will serve in the future to render the best possible care to a diverse Australia [56]. Encouraging the admission of LGBTQIASB+ medical students plays a role in the representation, acceptance and progress of this community within, and outside of, the healthcare setting [58]. This is an ongoing issue, as accessing healthcare is an area where LGBTQIASB+ Australians feel least accepted (43.4%), translating to widening healthcare disparities [59]. Firm commitments to ensuring queer student safety in medical school are imperative to supporting admissions. This can occur by ensuring all discussions of LGBTQIASB+ identity in the curricula are affirming and that any historically stigmatising perceptions of queerness are eliminated.

Low Socioeconomic Status (Low SES) Background Students

Lower socioeconomic communities are often under-resourced medically due to a lack of medical student representation from these communities [60]. Doctors are more likely to practise in areas with the same socioeconomic status as at their time of admission [60].

The lack of representation of medical students from low SES backgrounds remains an issue of concern [61]. Less than 10% of Australian medical students come from a low SES background, compared to a disproportionately greater representation of students from high SES backgrounds [61]. Of note, the proportion of students from low SES backgrounds in medicine is 5% lower compared to that of the general university population [61].

Many studies have documented financial and social barriers resulting in underrepresentation of low SES students in medicine [62]. To understand these barriers, requires understanding the condition behind successful entry into medical school [62]. Schools with demographics reflecting students from high SES backgrounds often have embedded “cultures of success”, and family members in medicine, that provide students with resources, and instil students with an “aspirational capacity”, to enter medicine [62]. However, conditions for developing and realising aspirational capacity are not equally accessible amongst different SES groups [62]. Students from high SES schools, and families with a lineage of doctors are capable of providing far more resources, support, and proof of past success that motivates successful entry into medical school [62].

Many universities have accessibility pathways for socially and financially disadvantaged students [63]. As an example, the University of Melbourne implements a Graduate Access Melbourne (GAM) is a scheme that re-ranks candidates based on their level of disadvantage in relation to rural background, financial disadvantage or hardship, or a combination of factors that impact tertiary academic performance [63]. These schemes unfortunately do not address the root disparity in “cultures of success” [63].

Admission for Rural and Remote Candidates

Rural and Remote Quotas

The Rural Clinical Training and Support Program, implemented in 2011, supports 18 rural clinical schools across Australia [64], and mandates that 25% of all Commonwealth supported students train in a rural area coordinated by a rural clinical school for at least one year of their clinical training [64]. It also mandates that 25% of students enrolled in the course have a rural background [64], excluding Griffith University.

However, the statistics are unclear as to whether these quotas are being met, with a review showing only 22.3% of students had a rural background [64]. While positively, 29.3% had participated in an extended rural placement [64]. As of 2021, around 7 million people or 28% of the population live in rural and remote areas [65], which is disproportionate to the rural quota. Thus, the rural quota designated for medical schools is likely inadequate and should be raised accordingly. The study found that students who attended a Rural Clinical School (RCS) were 1.5 times more likely to be in rural practice, while those who participated in an extended RCS placement were 2.6 times as likely to be in rural practice [64].

Transparency of compliance with rural quotas remains a concern [66]. Consensus data is not available for information regarding how many rural applicants apply to medical school each year, and how many of these rural applicants enter with the intention to practise rural medicine. Furthermore, since the 2012 government inquiry [66], it has been suggested to redefine what constitutes a 'rural student', strengthening it to include students who have spent four of their 6 years of secondary schooling in a rural area, or four of the last 6 years with their home address rurally, or those who show 'rural-mindedness' in the form of willingness to accept a government supported Bonded Medical Place [66].

A new rural medical school program proposed by the Australian government in late 2023 will see an extra 160 medical students beginning end-to-end rural medical training at 6 new medical school programs in rural communities, also providing up to 80 new medical school common-wealth supported places [67]. This program's introduction will further assist in bringing more medical graduates rurally [67].

Bonded Medical Program (BMP)

The Bonded Medical Program (BMP) is an Australian Government initiative that aims to address shortages of doctors in rural areas [68-69] and is a new rendition of the previous scheme, titled the "Bonded Medical Places (BMP) Scheme", which concluded in 2019. The schemes remain similar, varying most distinctly in their

requirements for the return of service obligation duration. The Government provides Commonwealth Supported Places (CSP) to medical schools with the condition that bonded students work in an area of need for a period of time [68-69]. In 2024, 28.5% of all CSPs will be allocated to the program, varying between universities, with some continuing to have no clear criteria for the program [70].

Recent evidence shows that the BMP scheme inadequately addresses the national rural and remote doctor shortage, with very few graduates for the BMP completing their return of service obligation, and even fewer continuing to work in rural or remote areas following completion of the return of service obligation period [83]. This suggests that the BMP should be amended with evidence-based initiatives that more effectively increase rural workforce retention for healthcare professionals [83]. In addition, there is poor transparency from individual universities regarding the provision of information for BMP allocation [83]. This is an issue that needs to be amended, should the scheme continue, to allow prospective participants to make an educated decision as to whether or not they wish to opt in to the BMP program [83]. There should also be more readily available resources on what the program entails, before applicants are signed onto the BMP program [83].



Evidence on Medical School Admissions

The Objective of Medical School

The objective of medical school is to produce graduates who are capable of practising safely and effectively as junior doctors. These graduates are expected to operate with a level of expertise and proficiency, upon which further training can occur [71]. By assessing for the desired skills and personal attributes of the profession, the current admissions process aims to select students from the pool of applicants, and enrol students who are more likely to succeed [72]. The values and attributes sought after in each medical school's criteria should reflect not only the traits of a good medical student, but also that of a good doctor [73].

These traits include:

- Empathy
- Academic ability
- Capacity to analyse and apply knowledge
- Effective communication skills
- Self-awareness
- Responding to diversity
- Dealing with uncertainty
- Commitment to lifelong learning

Current Evidence on Admission Criteria

The current literature assessing the success of admission tools used by medical schools is lacking and not completely comprehensive. There is little evidence supporting the capacity for aptitude tests to predict success in medical school, and in professional practice [74-75]. A retrospective study of the GAMSAT [76], and systematic review of the UCAT [78], both show a weak correlation between aptitude test performance, and performance in medical school. The UCAT's situational judgement subtest is a weak indicator of professional behaviour [77].

The strongest predictor for academic success in medicine is previous academic performance [79]. GPA was found to be the most consistent predictor of academic achievement, and accounts for up to 23% of variance in medical school results [74, 78]. The ATAR is also a predictor for academic achievement in medical schools [79]. Hence, there remains some credibility to using GPA and ATAR scores as predictors of academic success [71, 78, 79]. Medical schools often meet significant pressure in ensuring that their students graduate in a timely manner – this may account for the high academic threshold required for admissions.

The clinical environment demands attributes beyond academic success [80]. The impact of GPA accounts for only a 6% variance in success in professional clinical performance [80]. These findings are likely confounded by important skills such as professionalism, bedside manner, moral and ethical judgement, and safe decision making in clinical settings.

Interviews act as psychometric measures that assess factors not addressed in academic and aptitude test thresholds [72]. These include interpersonal skills, motivation, traits of a candidate, and their compatibility with the medical profession [72]. Interview performance is a predictor of performance in Objective Structured Clinical Exams (OSCEs) [72]. It is also commonly perceived that MMIs offer a more valid assessment of candidate potential than semi-structured panel interviews [72]. This is because it reduces the “first impression” effect of interviews, allowing candidates to be assessed on different traits by multiple assessors, in a manner that is not influenced by the candidate’s performance in previous stations [72].

Portfolios and written applications continue to form a component of some medical schools’ admission processes [81]. This allows for the assessment of personal characteristics and values that are not academic-based, and allows candidates an opportunity to express their motivations, and to demonstrate their suitability and unique attributes.

Recommendation

More research is required looking into the validity of medical school admissions criterias. The impression is that a lack of evidence on current admissions tools, combined with the lack of better alternatives, and increasing competitiveness of medical school applications – has placed increased emphasis on aptitude tests, GPA, and ATAR to differentiate between candidates. Continued research is required to improve the selection process, this includes considering new selection processes that assess for traits such as:

- Resilience
- Sense of social responsibility
- Emotional stability.

Medical schools need to continually strive to modify and implement selection criteria that produce safe and empathetic doctors [82].

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