To remedy something is to put it right. Remediation during medical school is the process by which students identified as having difficulty are identified and given a formal opportunity to improve so they meet the necessary standard. Elements in best practice are detection of a deficiency in competence, feedback, development of an individualised learning plan, followed by reflection, specific learning activities, feedback and re-testing. Confounders such as health or external factors that impact upon the likelihood of success also need to be addressed.

Given the importance and challenges of remediation, surprisingly few medical schools have published reports on the topic. The paper by Grainger et al in this issue outlines the remediation process at the University of Auckland, adding important insights on a number of levels. First, it quantifies the number of students needing some form of remediation, when and why they need it and who is at higher risk; second, it describes the system needed to deliver remediation; third, there are details on the range of remediation options used; finally, we hear views of staff involved in remediation.

Grainger and colleagues report that 18% of students require one or more of a range of remedial interventions. Most are at the less intensive end of the spectrum, with the students being flagged for closer attention in subsequent attachments. Notably, they do not include students who were subject to the parallel Fitness to Practice process, which has been reported upon previously. In that process, around 5% of medical students receive at least one notification for a health or professionalism issue, with almost all eventually graduating. As professionalism is a key curriculum domain, and health issues may impact on academic performance, inevitably some students will be remediating via both processes. An estimate is, therefore, that around a fifth of Auckland medical students need some formal extra help during medical school in order to achieve the required standard.

Is a fifth of students needing formal remediation too low, too high or about right? The proportion undergoing remediation will depend on how it is defined, the sensitivity of the assessment system to detect deficiencies, the capability to provide remedial education, and tolerance for attrition from the programme. A recent paper from the University of Otago found 36% of medical students in their clinical years had deficiencies in one or more of clinical skills, knowledge or professional behaviour. Before recent curriculum changes, similar rates were seen at Auckland. The majority of students progress satisfactorily after one intervention. Furthermore, most of those ‘remediating’ in clinical years had technically passed, but were being flagged for attention in a subsequent attachment to ensure they met the standards.

Years ago, many of us were subjected to ‘big bang’ end-of-year assessments with only three possible outcomes: pass, repeat the year or exclude; with decisions made on relatively opaque criteria. There was no systematic, holistic remedial support. Loss from the programme was higher than it is today. Since then, classes have got bigger with cohorts more representative of the population, students have invested more in their education, and procedural fairness more explicit. Advances in educational pedagogy mean that modern programmes define the competencies or outcomes to be achieved in each stage of training. To these are aligned assessments of knowledge, skills and professional behaviours, which inform progression decisions made by a formally-constituted group of examiners.
Students face multiple small assessments, including those in the workplace judged by a range of supervisors. No one assessment is perfectly valid, but an overall picture of student performance over time in all domains is collated longitudinally. A relatively recent addition to the assessment repertoire in New Zealand is progress testing, although it's been around for over 40 years. Questions are set at graduation level, with tests carefully moderated and delivered several times per year. Students must meet minimum levels for their own year, as well as show progress in acquisition of applied knowledge. For these reasons, newer programmes may be more able to detect problems earlier as well as have more confidence around pass/fail decisions.

Most doctors (from L *docere* = to teach) and university educators (from L *educare* = to lead out of), take on the remedial challenge readily, but they only have so much capacity. Medical programmes are growing in terms of numbers and curricular demands. Hospital services are increasingly busy. Among the constraints are supervisor availability and timing—remediation often coming in the busy end-of-year period. For students already experiencing academic or pastoral difficulty, the imposition of extra work within a year may be too much. A decision to be faced is whether or not it would be better to repeat the year. This brings into play issues such as financial costs, delay in graduating and an extra line on the academic record, which may be a disadvantage when applying for jobs or training schemes. As an aside, should a repeated year be viewed as a negative, as long as the expected standard is reached eventually? Those taking another year may be better able to consolidate their knowledge and skills, learn new approaches for lifelong learning or address any personal or external factors impacting on performance. It would be of interest to get the student view on remedial education.

Deficits in knowledge and professionalism in medical school are associated with a slightly higher likelihood of being subject to a medical board disciplinary procedure later on. Further, concerns about resilience may be expressed by staff. Universities are often asked if we can select ‘better’ students. Unfortunately, we lack the ideal combination of selection tools which can do all of (i) ration scarce places, (ii) exclude those frankly unsuited for medicine, yet (iii) result in a diverse group of students who (iv) all graduate in the minimum time. In good faith, medical schools use the tools available in an evidence-based way to choose a group with the best hope of progressing through the medical programme and who will go on to practise as good doctors, in all scopes of practice. At the University of Auckland, the minimum prior academic standard is based on predictive validity testing. Neither the aptitude test, UMAT, nor interviews predict academic progression. Students entering via two specific pathways were more likely to need remedial intervention. Yet both groups are important so it behoves us to do as much as we can to support these students to complete their studies. Moreover, it's a call to re-examine assessment systems for any cultural biases, and continue to address inequities in preparation for tertiary education.

Scores at selection or on individual assessments will never be perfect in predicting student success. As well as providing a basic medical education, medical school could be viewed as a long interview for the workforce. While remediation offers students another opportunity and faculty a ‘second look’, governance must be robust enough to exclude students who fail to meet the agreed standards, even with appropriate remediation. As the authors suggest, long-term follow up is needed to validate decisions after remediation, ie, were students allowed to progress who subsequently had irremediable problems in the workforce? This type of research only looks at those who did progress into the workforce. It doesn't take account of those who withdrew or were excluded along the way, but who might have progressed if they had received more targeted support. Students and many others make a significant commitment to an individual’s medical education and training. A portion of system resources must be dedicated to helping students who take longer, or a different path, to achieving competence. When all this is taken into account, a fifth of students needing this support seems about right.
REFERENCES:


Competing interests:
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