

Better preparing Australian medical graduates: Learning from the New Zealand model of trainee interns

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The New Zealand experience of preparation

In New Zealand, the trainee intern (TI) year is a clinical apprenticeship year undertaken in a hospital under the aegis of a medical school. It is undertaken in the final year of medical school and comprises eight clinical attachments (Table 1). The year aims to provide learning in the work environment with limited clinical responsibility. Trainee interns are paid an annual stipend (60% of a house officer's salary) from the New Zealand government via the education budget; however, the year remains under the jurisdiction of the medical school and thus retains an education focus. Although required to be supervised, TIs contribute to service (taking on approximately one-third of the patient load) and often stay on after graduation in their respective hospitals for postgraduate year one (PGY1). [1,2] Formal education and rotation assessment occur continuously throughout the year.

Table 1: Attachments during the trainee intern year. [2]

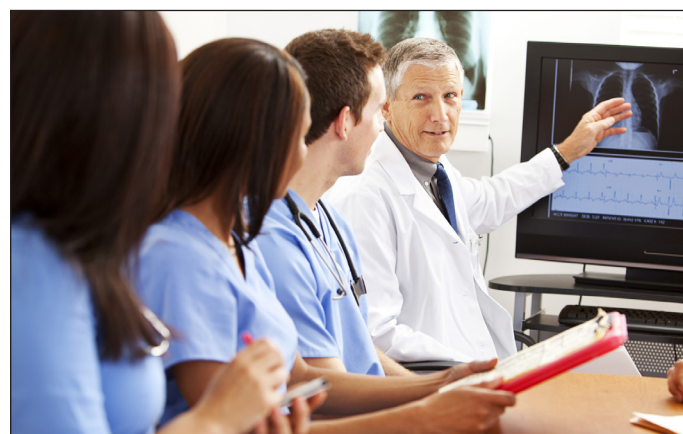
Rotation	Weeks
Medicine	8
Surgery	8
Paediatrics	4
Obstetrics and gynaecology	4
General practice	4
Psychological medicine	6
Medical and surgical reserve	2
Electives	12

In Australia, there is no equivalent transition from medical school to internship and this transition may be overlooked. Medical graduates switch from enjoying little or no clinical responsibility to suddenly being accountable for the safety and management of a large number of inpatients. This precipitous change of role affords minimal time for satisfactory adaptation and preparation for the stress associated with internship. Some medical schools have attempted to soften this transition by introducing pre-internship terms into the curricula. [3]

Transitional stress from medical student to intern

The transition from university to workplace, with accompanying increase in professional responsibilities, is inherently challenging for most graduates. The reality of being personally responsible for patients can induce stress, psychiatric morbidity (including depression and anxiety) and burnout. [4] In a prospective longitudinal study of 110 interns who had graduated from the University of Sydney, 70% of interns met criteria for a psychiatric disturbance on at least one occasion during PGY1. This level of stress leads to decreased effectiveness at work and a reduced level of patient care. [4,5]

Some identified stressors include newly gained responsibility, managing uncertainty, working in multi-professional teams, experiencing the sudden death of patients and feeling unsupported. The stress of transition can be reduced with early clinical exposure, including



opportunities to act in the role of a junior doctor. [6]

Lack of preparedness for internship

Despite extensive research and frequent appraisal of medical curricula, junior doctors still perceive gaps in their preparation for internship. In one survey of interns, medico-legal aspects and resuscitation skills were identified as areas where interns felt inadequately prepared. [7]

Procedural confidence is positively correlated with exposure to procedures. [8] Formal theoretical teaching that is disconnected from direct clinical cases is perceived to be of limited value in clinical years. [9] A substantial proportion of medical students in Australia enter their intern year without adequate procedural skills experience. [10-12] This lack of experience is a significant stressor for many junior doctors.

Prescribing medications is an essential task for an intern. In one Australian study, interns about to commence clinical practice demonstrated significant deficits in prescribing regular medications, initiating new therapies and prescribing discharge medications. They were particularly poor at prescribing Schedule 8 medications.

Less than half of the participants agreed that they felt adequately trained to prescribe medications in their intern year and not one of the participants strongly agreed they were completely prepared. [13] Junior doctors have also been shown to perform poorly in calculating drug doses, one of the most common prescribing errors and a significant contributor to morbidity and mortality among hospital patients. [14,15] Many medical students would testify that although these are skills which are able to be taught in the classroom, they can only be learnt effectively from familiarity and experience on the wards.

In Australia, there are significant barriers to student access to patients. [16,17] As a TI, with greater responsibility within a team, a commensurate increase in opportunities for clinical encounters with patients would follow. Students in the TI role would be entitled, indeed required, to participate. In addition, the role of TI would offer greater familiarisation with clinical documentation, an important aspect considering the substantial proportion of time interns spend performing administrative duties and the importance of good record keeping. [18]

In New Zealand, there is evidence that TIs feel better prepared to practice. At the end of the trainee intern year, 92% of students felt prepared to be a junior doctor, versus only 53% at the end of year five. [19] This is a substantially higher proportion than that found in a similar study of final year medical students in Australia (64%). [20] While it is acknowledged that such data regards perceived and not measured competence and performance, it does provide reassurance that the TI year may ease the transition to the junior doctor role. [21,22]

Financial impact of final year medicine

After time management issues, medical students rank financial pressures as the main factor causing stress during their medical degree. [23] In particular, compulsory rural placements and elective placements, where the student is absent from their regular place of employment, can be a significant financial burden for medical students. While many medical schools support students at rural sites with free accommodation and travel reimbursements, the loss of income for up to two months while away makes ongoing living expenses, such as rent at their base site, as well as other necessities, difficult to afford. The stipend associated with the TI program would reduce this financial stress considerably.

In addition to remunerating students for their work, there are other benefits of receiving a salary. The fact that TIs are recognised as paid staff places a responsibility on them to perform well, and in doing so, prepares them more adequately for internship. [2] In Australia, anecdotal evidence suggests that even in their final year, medical students are frequently pushed aside, relegated to the position of observer or made to feel like a nuisance rather than a useful component of their respective teams.

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Contribution of trainee interns

There is evidence that TIs positively contribute to patient care. [24] In New Zealand, they are expected to manage approximately one-third of the patient load, providing much needed relief for interns. The advantages of TIs extend beyond metropolitan hospitals. In rural areas, final year students have been credited with making a net contribution to the system and augmenting the local workforce. [25] TIs also had a positive impact in general practice, with demonstrated improvement in the quality of both patient care and communication. [24]

Conclusion

An effective medical education continuum, involving active ward involvement will better prepare graduates for PGY1. Empowering medical students by establishing a paid trainee intern year (undergraduate courses) or rotation (postgraduate courses) could translate into increased proficiency in working within a multidisciplinary team, greater confidence and improved clinical ability. This term, prior to commencement of internship, would offer a smoother transition between student and junior doctor, affording greater responsibility and providing increased practical experience to medical students. Further discussion and debate about the most effective path to prepare final year medical students for internship is needed, with serious consideration of a paid trainee internship term in all Australian medical schools, suited to the Australian context.

Conflicts of Interest

None declared.

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