

Preparing interns for practice in the 21st century

Stephen R Leeder

In Australia, the mismatch between university-based medical education and preparation for the practicalities of lifelong professional practice has traditionally been confronted during internship — the year (or two) between university and specialisation or general practice. Internship was when wild-horse medical graduates' spirits were broken and discipline was imposed by tough hospital managers and senior clinicians. The educational model used might have come straight from the military — tight rosters, hours of holding onto surgical retractors in theatre or of organising operating lists, days of admitting patients and trudging miles to retrieve pathology and radiology department results in preparation for rounds with “Sir”, and nights and weekends on call or in “cas” all confirmed the hierarchical command structure that ran through senior residents, registrars, and superintendents to staff or visiting medical officers.^{1,2}

Most problems involve some contribution from the individuals they affect. Obsessional traits, which are not uncommon among doctors,³⁻⁵ may be useful in a rigorous study regimen, but they can also result in unrealistic perfectionism, inflexibility and alienation, which are counterproductive in the workplace.

The experience of those of us who completed internship three or more decades ago remains recognisable, even though the formality of the apprenticeship (all-white uniforms with ties) has changed, the working hours are marginally more humane, and pay for interns has increased.⁶ However, the challenges of these years remain substantial. This is despite educational reforms introduced by state-based committees,⁷ formal placement programs that broaden the opportunities for interns to venture beyond large city hospitals,⁸⁻¹⁰ and abandonment of the practice of allocating the unwanted to smaller hospitals with horrific workloads and no supervision. Concerns about patient safety have placed supervision centre-stage, with a more open system for reporting errors required. Junior doctors, who do most of the work, are, not surprisingly, involved in many of the errors.¹¹⁻¹⁴

Ten challenges confront us in ensuring that the 2 years immediately after medical graduation are used to best effect:

- understanding the nature of the transition;
- recognising the changing workforce;
- securing an equitable educational experience across Australia;
- rewarding and enabling (with *time*) the good educators;
- addressing quality and safety — communication and culture;
- expanding the home of intern education to remote general and community practice;
- maintaining flexibility;
- avoiding excessive administration;
- advocating for recognition and strong support; and
- bridging university and specialty training.

Understanding the nature of the transition

It is easy to overlook the magnitude of the transition from medical school to internship. Many medical schools have softened this transition by introducing pre-internship terms or years into their curricula. Nevertheless, the change from student to intern is a big cultural leap. Many hospitals now manage this transition with organised orientation programs and the appointment of directors

ABSTRACT

- Internship in the 2 years between university and specialisation or general practice is intended to prepare medical graduates for the practicalities of lifelong professional practice.
- Changes in both society and new doctors' expectations mean that anachronistic teaching models need to give way to improved education during internship by doing the following:
 - providing better education and rewards for intern trainers;
 - piloting and evaluating new intern rotations, with support;
 - promoting the value of teaching and training as a means of assuring quality and safety;
 - using the new Australian Curriculum Framework for Junior Doctors to promote diverse learning pathways for interns while establishing an Australian baseplate for internship education;
 - piloting and evaluating the effectiveness of intern education programs with minimal bureaucratic arrangements;
 - advocating hospitals and health departments for improved intern training; and
 - continuing efforts to ensure that the continuum of learning from undergraduate to postgraduate medical education strengthens so as to avoid unnecessary repetition.

MJA 2007; 186: S6–S8

of clinical training to nurture and mentor the newcomers on the wards. While the only Australian study designed to measure the effectiveness of training and education of prevocational doctors had a poor response rate (18.1% of a sample population of 2601), it concluded that prevocational education and training needed to be redesigned with an enhanced role for registrars.¹⁵ It seems all is not yet well in this transition.

Recognising the changing workforce

Huge generational changes in our society mean that education for interns must recognise that many have had to work for money during their medical degree, and most will graduate with debt. In addition to these general social changes, graduate entry to medical school means that students' experience of life is broader than that of previous interns — many are married and have children. Some interns will say quite frankly that they are unimpressed with conservative notions of a life of family-less and selfless dedication to medicine. Regardless of their merits, these changes in attitude must be taken into account in planning for the further education of interns. Male and female interns alike are looking to build lives in which their profession is not their sole, exclusive, dominating, exhausting definition of identity.¹⁶

Medical courses today encourage students to think, criticise, communicate, challenge the basis of clinical practice, and learn through their own endeavours. There is no longer a role in teaching for clinician educators who cannot cope with this contemporary style of education. Nor is there a place for sadists who continue to teach (well, try to teach) by humiliation. They offend politeness, social grace, good education and medical ethics.

Securing an equitable educational experience across Australia

Most interns and residents are allocated to urban hospitals, which is not surprising as most Australians live in cities. Targeted programs have been introduced to allow interns to spend some of their training time out of the major cities. In New South Wales, hospitals are able to directly recruit doctors who want to live and work in a rural environment. More may well be possible with a bit of imagination. Rotating interns among various hospitals ensures a more equitable spread of training. This has had good and bad consequences. Even when things work well, the smaller hospitals feel, understandably, that they form no substantial links with the interns — certainly nothing like the links formed in large city hospitals where interns spend much more time. This is why we should encourage programs that seek to match rural hospitals with doctors wanting to work in them for longer periods.

Rewarding and enabling (with time) the good educators

Public hospitals labour under pressures that include ever tighter managerialism and seemingly fewer resources to meet growing demand. Everything is clamped down. Hospital specialists have been told to limit their teaching and research hours even further. If they teach, they may be expected to make up lost time by working longer hours providing clinical services. In Victoria, universities will soon pay hospitals for providing access to the wards for medical students. So, all Australian universities may soon also be forced to pay clinicians adequately for teaching medical students, because constrained health services increasingly do not recognise teaching as part of their core business. It is reassuring, therefore, to read in the recently published NSW State Plan that the government proposes to “design new clinical and support roles to allow the health system to more responsively meet the changing health needs of the community”. We can hope that this extends to flexible intern training.¹⁷

One further way of rewarding teachers, discussed below, is to link the education of students, interns and specialists-in-training so that teachers do not have to give the same lecture or tutorial three times, to everyone's excruciating boredom.

Addressing quality and safety — communication and culture

One area where the training of interns may make economic sense to hospitals, both public and private, is in the cost of medical errors.

Errors, like waiting lists, are highly politically sensitive phenomena. An excellent way to begin to reduce error is to ensure that interns are adequately supervised, and that medical errors are treated as problems in which many players are involved, and in which multiple structural remedies are needed to avoid repetition. Intern education is an important component of risk management, and this may be sufficient reason for health service providers to continue to support it financially.

Hospitals, interested in minimising their exposure to prosecution and ministerial fury, have put in place mechanisms for early detection of incipient clinical errors and ways whereby, through astute supervision, errors can be corrected before they become clinically significant, and interns can learn to avoid similar mistakes in the future. These risk-minimisation strategies (including “smart” information technology [IT] systems) can double as intern

education to some extent, and may be one way whereby intern education could continue to be supported by the health system.

Expanding the home of intern education to remote general and community practice

Modern IT and communication systems have enabled interns to receive training in remote general and community practice and still receive good quality mentoring and supervision. The expansion of education of medical students to rural and remote Australia has been remarkably successful. Students speak positively about the clinical substance of learning in these settings and the personal attention paid to them by clinical staff. Links between intern training and general practice have already been established in many places.

With the increased numbers of medical schools and the need for more places for clinical training at all levels of medical education, an expanded home for intern education that is quality assured and appropriately supported that extends beyond our big cities is being discussed.

Expanding medical education into private hospitals may also be necessary as the number of medical students increases in response to medical workforce policy changes. However, a decade of talk has seen little progress in the extension of specialist training into the private sector, and there are few specialist trainees working full-time in not-for-profit hospitals and almost none in for-profit hospitals. Recent discussion has focused on having advanced trainees in private hospitals, but that experience would be less valuable for interns. Private hospitals need major changes in governance before they can offer good intern experience.

Maintaining flexibility

There is a lot to learn if one is to be a specialist, and training programs are long. The length of training programs may be partly the result of growing expectations placed on trainees. Many specialist trainees complain that 30% of their ordinary working week is spent on activities with little or no clinical or educational value. The Australian Medical Council (AMC) should be more active in seeking reduction in program length through its accreditation of specialist training programs. In an effort to reduce the incredibly long training for specialty practice, it is reasonable to ask why the internship should be the same for all doctors. Why should it not be vocationally adjusted? The issue of early streaming deserves closer examination.

Avoiding excessive administration

One of the unfortunate corollaries of the current focus on the intern years is that the interest will spawn a bureaucracy — forms to fill in, logbooks to keep, records to maintain. Implementing and managing the national curricula for postgraduate years 1 and 2, establishing the criteria to be used by assessors, tracking interns as they move through the system, collating intern and hospital satisfaction questionnaires, and so forth will all require administration. Some of this will be important and necessary, some will not. It is important that the administrative arrangements for intern training be kept mean and lean, and if something is working, that it be left alone without trying to capture it on a computer file. Interns and their supervisors already complain about administration.

Advocating for recognition and strong support

Nothing of substance will occur to improve the lot of interns and the quality of their training without advocacy. If advocacy for further educational development and expansion of experience of interns is to be successful, we will need strong advocates. "Failure to educate interns adequately will lead to litigation worth \$100 million a year" is the sort of statement that might open a fruitful conversation with those holding the purse strings. Clearly, as advocates, we need to be sure we believe what we say and have solid evidence. Intern education is critical for safe patient care and sound postgraduate development. That is our core sound bite.

Bridging university and specialty training

It is surprising that there are differences among universities, intern training programs and specialty colleges, given that many of the people who work in these programs are the same people. There is an encouraging and growing interest among the colleges (stimulated by the requirement that their training programs be accredited by the AMC, and by the dogged efforts of a few individuals) in developing educational programs, and not simply accreditation barriers, for their future fellows. Universities are commencing or reactivating postgraduate courses in medicine in various special areas. There are encouraging signs. Monash University has commenced a course in communication that spans undergraduate, intern and specialty training years. This will be an interesting experiment to watch, and it may set useful precedents for greater continuity of education in other fields (Neil Spike, Head, Department of General Practice, Monash University, personal communication).

The Confederation of Postgraduate Medical Education Councils has done well to come up with the Australian Curriculum Framework for Junior Doctors,¹⁸ which will have far greater meaning when a truly robust, effective, feasible and valid assessment system is in place. This is one among several promising prognostic indicators that intern education and support are taking a turn for the better. For that, many people who have laboured to achieve progress over many years should be praised for their tenacity and wisdom.

Conclusion

It follows that on an agenda for action to improve the educational value of the 2 years immediately after medical graduation, the following would ideally be included:

- provision of better education and rewards for the trainers;
- piloting and evaluation of new intern rotations, with support;
- promotion of the value of teaching and training as a means of assuring quality and safety;
- use of the new Australian Curriculum Framework for Junior Doctors¹⁸ to promote diverse learning pathways for interns while establishing an Australian baseplate for internship education;
- piloting and evaluation of the effectiveness of intern education programs with minimal bureaucratic arrangements;
- advocacy to hospitals and health departments for improved intern training; and
- continued efforts to ensure that the continuum of learning from undergraduate to postgraduate medical education strengthens so as to avoid unnecessary repetition (this requires linking curricula and assessment through all levels of medical education).

Acknowledgements

I thank Associate Professor Marilyn Walton and Professor Richard Ruffin for their conversation on this topic over months, and for their comments on this article; and Amanda Dominello for her help in its preparation.

Competing interests

None identified.

Author details

Stephen R Leeder, MD, PhD, FRACP, Professor of Public Health and Community Medicine, and Director, Australian Health Policy Institute University of Sydney, Sydney, NSW.

Correspondence: steve@med.usyd.edu.au

References

- 1 Cassell EJ. Historical perspective of medical residency: 50 years of changes. *JAMA* 1999; 281: 1231-1233.
- 2 Sinclair S. Making doctors: an institutional apprenticeship. Oxford: Berg Publishers, 1997.
- 3 Hamilton TK, Schweitzer RD. The cost of being perfect: perfectionism and suicide ideation in university students. *Aust N Z J Psychiatry* 2000; 34: 829-835.
- 4 Lawrence J. Stress and the doctor's health. *Aust Fam Physician* 1996; 25: 1249-1256.
- 5 Johnson WDK. Predisposition to emotional distress and psychiatric illness amongst doctors: the role of unconscious and experiential factors. *Br J Med Psychol* 1991; 64: 317-329.
- 6 Andrews RR. Hospital staffing and hospital costs. *Med J Aust* 1976; 2: 222-225.
- 7 National training and assessment guidelines for junior medical doctors PGY 1 & 2. Canberra: Australian Government Department of Health and Ageing, 2003. <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-workforce-new-jmonatgui.htm> (accessed Nov 2006).
- 8 Australian College of Rural and Remote Medicine. Prevocational general practice placements program (PGPPP). <http://www.acrrm.org.au/main.asp?NodeID=26571> (accessed Dec 2006).
- 9 The Royal Australian College of General Practitioners. The pre-vocational general practice placements program — outer metropolitan and regional placements. <http://www.racgp.org.au/pgppp> (accessed Dec 2006).
- 10 Australian Government Department of Health and Ageing. Prevocational general practice placements program. <http://www.aodgp.gov.au/internet/wcms/publishing.nsf/Content/Prevocational+General+Practice+Placements+Program-1-lp> (accessed Dec 2006).
- 11 Reason J. Beyond the organizational accident: the need for error wisdom on the front line. *Qual Saf Health Care* 2004; 13: ii28-ii33.
- 12 Dean B, Schachter M, Vincent C, Barber N. Causes of prescribing errors in hospital inpatients: a prospective study. *Lancet* 2002; 359: 1373-1378.
- 13 Baldwin PJ, Dodd M, Wrate RM. Junior doctors making mistakes. *Lancet* 1998; 351: 804-805.
- 14 Anderson ID, Woodford M, de Dombal FT, et al. Retrospective study of 1000 deaths from injury in England and Wales. *BMJ* 1988; 296: 1305-1308.
- 15 Dent AW, Crotty B, Cuddihy HL, et al. Learning opportunities for Australian prevocational hospital doctors: exposure, perceived quality and desired methods of learning. *Med J Aust* 2006; 184: 436-440.
- 16 Australian Medical Workforce Advisory Committee. Career decision making by postgraduate doctors. AMWAC Medical Careers Surveys, 2004. Main report. Sydney: AMWAC, 2005. http://www.health.nsw.gov.au/amwac/amwac/pdf/career_main20053.pdf (accessed Nov 2006).
- 17 NSW Government. A new direction for NSW. State plan. Chapter 3. Delivering better services. <http://www.nsw.gov.au/stateplan/sp4.aspx> (accessed Nov 2006).
- 18 Confederation of Postgraduate Medical Education Councils. Australian Curriculum Framework for Junior Doctors. November 2006. <http://www.cpmec.org.au/curriculum> (accessed Mar 2007).

(Received 4 Dec 2006, accepted 2 Feb 2007)

□