

# Quality junior doctor training, improved workforce outcomes and patient safety

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## Abstract

The intern year is a critical part of medical education and pivotal in provision of health services, especially in tertiary facilities. Training must be integrated with health service needs, as our health service is not well served if junior doctor training creates confidence without competence.

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SINCE THE MAJOR CHANGES in medical education nearly 100 years ago, there have been only islands of innovation, with a lack of any agreed strategic development and a poor evidence base to inform the way forward. The over-riding requirement of Australian Medical Council Accreditation is that medical schools produce medical practitioners who are safe and competent to practise as interns under supervision and who have an adequate basis to undertake further vocational training. The objective of the internship is to prepare for vocational training by consolidating the clinical skills acquired and assisting career decisions. How can this best be achieved? What are the current issues that need to be addressed? Are there new models that should be considered? How best to integrate with medical schools, vocational colleges and the health service?

## Current data

In Ireland, 91% of interns report they did not feel prepared.<sup>1</sup> They felt reasonably competent at

### What is known about the topic?

Although the practice of medicine has become more complex there have been few changes made to the approaches used to train junior doctors.

### What does this paper add?

This paper identifies the issues associated with clinical training, including lack of training and lack of time for supervising doctors, the need for better staff-to-trainee ratios and a lack of focus on competency development among the trainees.

### What are the implications for practitioners?

The author suggests the need for an integrated, comprehensive teaching strategy that is consistent for all interns but which recognises and enables them to develop the required competencies. The author suggests that a major overhaul of the approach to teaching junior doctors in Australia is required.

history taking and physical examination, but not in clinical management, emergency medical care, using drugs and communicating with patients (in particular the bereaved). They considered that they were not adequately informed in managing stress, prioritising commitments, team participation or chairmanship and business management.

In Australia, 91% perceived that they were prepared for dealing with patients and 70% with relatives; but only 23% with medico-legal issues; 31% with medical emergencies; 40% choosing a career and 45% with practical procedures.<sup>2</sup> Graduates commencing internships felt that they were full of knowledge but couldn't use it, and that it took between a few weeks and 2 to 3 months to feel comfortable. The solution is not to revert to the 18th century apprenticeship system, the 19th century discipline-based or 20th century organ system-based models. The exponential increase in required knowledge and skills makes this inappropriate. New solutions for the 21st century health environment are needed.

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## Issues for consideration

Future approaches to training doctors must consider the following issues:

- *Staff development*: Interns receive most help from the registrars who are not formally prepared for this role.<sup>3</sup> Doctors must be taught to teach.<sup>4</sup>
- *Supervision*: Time for supervision should be recognised and resourced as an integral part of the job description for all medical officers.
- *Integration*: Silos between medical disciplines should be broken down to ensure development of a clinical diagnostic model of training interns across disciplines. Training should be integrated into the operations of the health care system.
- *Orientation*: There should be improved and integrated orientation during the last weeks of medical school and early weeks of internship.
- *Learning environment*: The learning environment in hospitals needs to be improved with better role definition, bed management for training as well as service, formal daily or weekly discussion of clinical problems and issues that allows free expression of concerns and improved critical incident analysis. Trainees should develop individual learning plans to address their individual needs.
- *Clerical commitments*: Clerical commitments need to be reduced to foster more teaching time.
- *Handover*: Ensure overlaps of shifts to achieve better handover.
- *Ratios*: Aim for staff-to-trainee ratios that can achieve the objectives. The ratios appear to be better in North America than in Australia, New Zealand or the United Kingdom.<sup>5</sup>
- *Ensuring competence*: Introduce strategic assessment of competencies, but not instrumentalised, and only as evidence for a global assessment of level of professional competence.

## Proposed strategies

It is essential to define the balance of service and training required, while recognising that health systems have become more complicated. Learning time for trainees needs to be mostly “on the job” but formally identified. Learning increases with increasing workload, but is not capitalised if the workload is excessive.<sup>1</sup> Reduced working hours have been found to have either no impact

or a negative impact on education, but trainees apparently expressed reduced satisfaction with hours in excess of 80 hours per week.<sup>6</sup>

The ideal length and content of placements needs to be defined. Placements vary from 6 weeks to 6 months. There are no data available on the ideal, and flexibility may be the key, depending on the objectives of the placement. However, flexible placements would be more difficult to roster. The objectives of tertiary, secondary and community placements are different and complementary and each should be integrated into the curriculum. Is the traditional core medicine, surgery and emergency rotation appropriate and the only option? Further study is needed to determine how best to achieve the objectives.

A move of teaching to secondary hospitals, private hospitals and community health services (public and private) is essential to deal with the increased numbers of trainees. Tertiary sites provide concentrated training and supervision, but include excessive clerical duties. Secondary sites provide more individual clinical opportunities but can be daunting, especially at the beginning of the year. Who will pay? State departments of health? Australian Government grants? Private hospitals? In these sites, will we be asking the same people who already teach in tertiary hospitals to do more?

Supervision must be optimised. Registrars skilled in supervision are critical.<sup>7</sup> Personal relationships with the supervisors should include adequate contact, empathy, objectivity and encouragement as needed. Dent et al<sup>2</sup> reported that 90% of trainees had adequate contact with registrars and 56% with consultants. In addition, 94% had useful supervision from the registrar and 83% had assistance from simulation programs.

Consideration needs to be given to whether ward rounds are still the best process for the educational experience. They are valuable when there are signs to demonstrate and simple management issues to discuss, but not for communicating with patients and discussing multidisciplinary care. Vidyarthi et al<sup>6</sup> reported that junior doctors rated morning reports and teaching others most highly. Supervision guidelines are essential and should include required attributes, support, monitoring and communication.

There is need for an agreed competency-based process for assessment and progression to replace the current time-based placement with a satisfactory, non-specific report. It should be integrated and consistent with the national curriculum. Objective measures of achievement should replace unsubstantiated confidence in performance.<sup>7,8</sup>

Orphan subjects such as patient safety, ethics, evidence-based practice and complementary/alternative medicine cross individual disciplines and are usually inadequately covered in any. These can be addressed in a patient-focussed training program. It is necessary for the culture to move from a shame and blame approach to self-reporting of error and audit of critical incidents.<sup>9</sup> These issues should be covered at all sites in the management of every patient.

There need to be formal options for simulation training in communication with patients and colleagues (especially in emergencies), problem solving, technical skills development and acculturation (especially for overseas-trained doctors). These should complement "on the job" learning.<sup>10</sup> A blend of centralised facilities and devolved programs with expertise and/or experts from a central facility should be considered.

Only 17% of Western Australian interns indicated that they currently used the available information technology services provided by the health system (unpublished; Junior Medical Officer forum, Western Australia, 2006). There is a need to improve accessibility and the range of software provided.

New models of integrated health management-based training across disciplines should be investigated, including integration with undergraduate and vocational training. There is a need for increased research into intern training. Clinical leaders should be identified to take any proven models forward.

## Conclusions

Upon completion of their training interns need to have acquired a set of defined competencies. These include competence in taking a history, performing a reliable physical examination, critically assessing the information, creating a solid management plan,

and communicating with the patient, family and the community. Progress in training must be based on competency that serves the needs of the junior doctors, the patients, the health services and the expectations of the community.

To achieve this, interns must learn in the real-world setting and be supervised by experienced, compassionate and critically thinking practitioners. This requires that teachers must be trained, given time, and be resourced and rewarded. Duplication of teaching undergraduates and post-graduates, different disciplines, and on different sites must be minimised.

## Competing interests

The author declares that he has no competing interests.

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