

# Future models of general practice training in Australia

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Australia is currently undergoing significant health care reform, including its first National Primary Health Care Strategy. The strategy provides a timely reminder to all those involved in general practice education and training of the need to ensure that our educational programs reflect the requirements of the future health care system, stating:

It is essential that the future workforce is educated and trained to meet 21st century challenges but in a way that provides the flexibility and willingness to continually reflect on its role and place in the health care team to ensure that skilled resources are used in the most effective and efficient way as clinical practice and teams change.<sup>1</sup>

The accompanying report, *Primary health care reform in Australia*, identified some key strategic issues for Australian general practice.<sup>2</sup> Common to many developed nations, Australia faces the challenges of an ageing population with a growing burden of chronic disease and multiple morbidities. Hospital-based care is becoming increasingly high-throughput, with significant technological advances. Earlier hospital discharge and new shared care models place greater expectations on general practice to care for patients with more complex needs, and to work as part of a multidisciplinary primary health care team. The general practitioner of the 21st century will need to respond to the increasing super-specialisation of the hospital physician.<sup>3</sup>

These changes require GPs to assume an expanded role in chronic disease care coordination, managing multiple physical and mental health problems, and to develop a greater understanding of how health care systems can function more effectively. General practice must also expand and develop its role in disease prevention, including promoting healthier lifestyles and supporting patients to change their behaviours.

General practice must deliver safe, high-quality care with mechanisms of continuous improvement and better management of health information, including electronic health records. All GPs need competence in accessing, understanding and applying research evidence and new technologies to their daily clinical practice. While coping with significant technological advances, GPs must maintain a focus on patients and their families, and continue to value excellent consultation skills. They need to develop greater cultural competencies in caring for Indigenous and culturally and linguistically diverse patients. The expansion of community-based medical education means that GPs will need skills in teaching and educational assessment.

Finally, as GPs increasingly work in larger group practices, they must deal with the increased complexity of running an efficient small business. Although many younger doctors are looking for alternatives to managing their own practice, all GPs need a sound understanding of the complexities of Medicare Australia funding and practice management, especially as we move towards blended payment schemes and larger multidisciplinary primary health care teams in general practice.

Future models of training, therefore, must prepare GPs for working in an increasingly complex small business and high-technology environment; as part of a larger, multidisciplinary team; providing safe, high-quality coordinated care for acute and

## ABSTRACT

- Current proposals for significant primary health care reform in Australia create a timely opportunity to reflect on the education and training requirements of future general practitioners.
- Australian general practice will become increasingly team-based, with growing emphasis on coordinated care, chronic disease management, and disease prevention and self-management, while maintaining its focus on delivering high-quality, patient-centred care. This will require cost-effective application of new technologies and information management systems within new models of delivering health care.
- Future models of general practice training must respond to these new ways of working to ensure general practice remains an attractive career choice and training programs graduate doctors who are equipped to meet the health needs of Australians.
- This article discusses potential development of new general practice vocational training models in Australia. This includes hospital rotations that are more directly integrated with general practice placements and have greater emphasis on the needs of the future general practice workforce; and an extension of the training program to 4 years with a final year tailored to future career plans including development of expertise in practice management, specific clinical disciplines or academic skills.

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chronic disease as well as disease prevention; and supported through the application of research evidence and continuous improvement systems.

## Current models of general practice training

The Australian General Practice Training (AGPT) program currently involves a minimum 3-year full-time equivalent commitment. In broad terms, the first year involves hospital rotations, which, when combined with intern experience, must cover the mandatory terms of internal medicine, surgery, emergency medicine and paediatrics. The following 2 years entail three 6-month terms in general practice, based in two practices. The final 6-month extended skills term provides some choice to develop skills in a particular domain.<sup>4</sup> For those intending a career in rural and remote medicine, the program includes an additional fourth year of advanced skills training (Box 1).

So how well do our current training models reflect the vision of the future GP described above? Potential innovations in general practice training can be considered in terms of developments in content, duration, place and structure.<sup>5</sup> Are we teaching the right things, at the right time, in the right setting; and are we allowing sufficient time in training to achieve this? Several key questions around these core issues are worthy of consideration as we contemplate future models of general practice training in Australia.

**Mandatory hospital rotations — do they need to be more specifically tailored and accredited towards the needs of general practice training?**

Currently, hospital rotations are organised by the junior doctor before commencing the AGPT program. Although there are recommendations about the clinical experience gained during these rotations, these assume that rotational experience equates with educational content.<sup>6</sup> Ideally, hospital posts should reflect the educational needs of a future GP. For example, the internal medicine rotation, while covering sufficient acute severe disease, should also include significant experience in chronic disease management and geriatric medicine, ideally within an ambulatory as well as an in-patient setting. The established accreditation processes attempt to ensure that the educational elements of a rotation are not subsumed by service demand, but this does not consider their educational relevance for future practice.

In the United States, United Kingdom and Ireland, hospital rotations are increasingly associated explicitly with family medicine residency or general practice training programs. In some Canadian hospitals, registrars are attached to family practice teaching wards run by GPs.<sup>7</sup> In Australia, this concept is gathering pace with the establishment of rural generalist career pathways, but this model would probably be harder to implement in metropolitan hospitals, where few GPs have admitting rights.

We suggest the establishment of explicit generalist pathways in which hospital rotations are directly associated with, and accredited for, general practice training. This would ensure the clinical experience gained is directly relevant to general practice. We recommend that hospital rotations are organised so GP registrars work in hospital and general practice settings concurrently to support more integrated learning, as already occurs in some American family medicine residencies<sup>5</sup> and the Prevocational General Practice Placements Program in Australia.

**Content gaps — are we teaching all components of the curriculum to sufficient competency?**

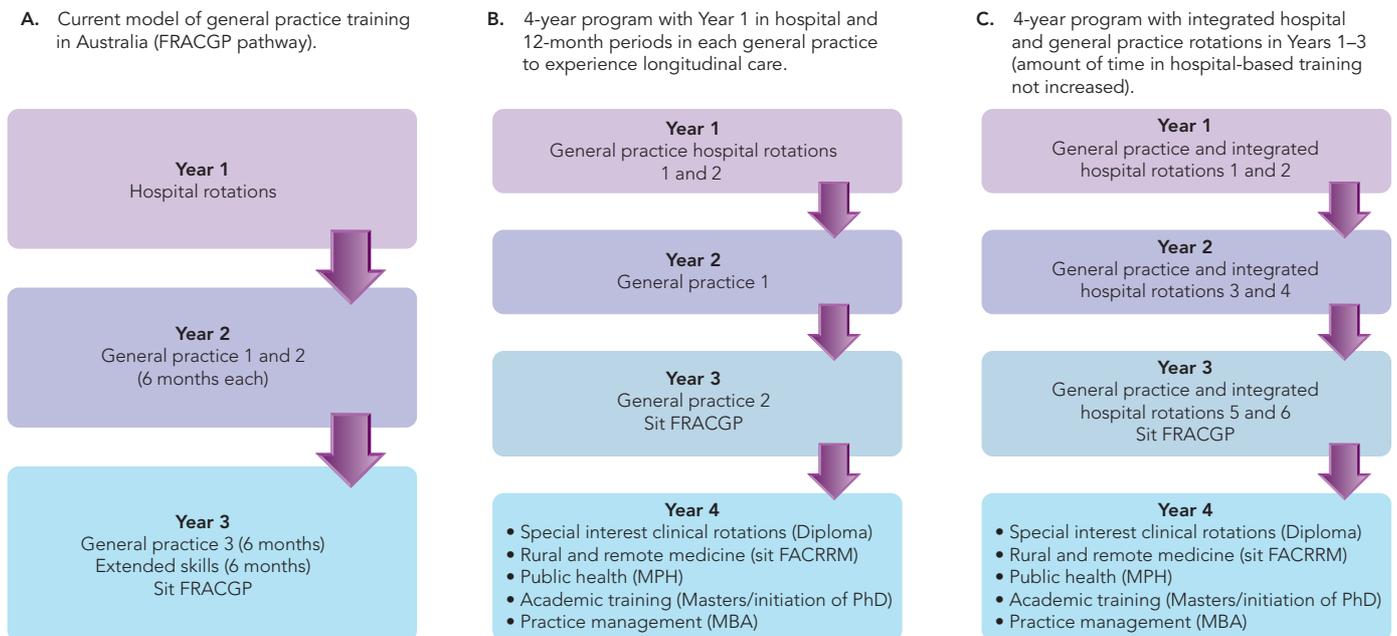
Current models of general practice training apply the established “novice-to-expert” model that expects the AGPT program to produce doctors who are competent to practise.<sup>8</sup> Subsequent clinical experience and continued professional development allow doctors to become proficient and eventually expert in general practice. However, evidence from systematic reviews suggests that doctors’ performance may in fact deteriorate with increasing years in practice.<sup>9</sup>

Registrars at the end of training do not necessarily feel confident to practise independently in all areas. This partly reflects variable clinical exposure due to different patient populations in training practices and the length of time spent in a single practice. Understanding the natural history of disease within the context of the family and community requires longitudinal educational experience that reflects the importance of continuity of care.<sup>3</sup> This argues for longer periods of training in an individual practice, but at the expense of exposure to a range of sociocultural groups and associated health care needs. An important consideration, therefore, is how to identify competency gaps and incomplete clinical exposure. Learning portfolios and log diaries offer the potential for registrars to reflect on this and plan their learning more effectively.<sup>6,10</sup> Experience of this approach by a regional training provider in New South Wales suggests this could be effective (Box 2).

Reflecting on the future needs of Australian primary health care, there are some learning areas that require specific attention. These include working in multidisciplinary primary health care teams, information management and technology, managing complex care needs, and the core academic skills of audit, critical appraisal, research method and teaching skills.

Primary health care teams will grow and become more complex. GP registrars need to learn to work not only as a team member, but also as potential team leaders. They need to understand the

**1 Potential future models of general practice training in Australia**



FRACGP = Fellowship of the Royal Australian College of General Practitioners. FACRRM = Fellowship of the Australian College of Rural and Remote Medicine. MPH = Master of Public Health. MBA = Master of Business Administration. PhD = Doctor of Philosophy.

different roles of team members and how to work collaboratively with them, particularly in the context of health promotion and chronic disease management.<sup>11,12</sup> This could be facilitated through horizontally integrated education within the practice (page S75 in this Supplement)<sup>13</sup> or shared learning; for example, through formal multidisciplinary reviews of care plans.

Advances in individual electronic health records will require GPs to become more competent in information management and technology and more systematic in their use of electronic clinical data. Better electronic health data create opportunities to use health information about the whole practice population to inform clinical audit and quality-improvement strategies. This requires a shift in how GP registrars are taught to use electronic data, including principles of data recording, and how they manage a population of patients as a whole, as well as individual patients' conditions.<sup>12,14</sup>

The growing burden of chronic disease is a major challenge facing Australia. Multiple morbidity is increasingly the norm; 58% of patients aged over 75 years attending an Australian general practice have at least three chronic conditions.<sup>15</sup> Managing patients with complex health needs requires significant expertise. GPs without such skills face patient dissatisfaction, increased consultation rates, overinvestigation and work-related stress.<sup>11</sup> Currently, about half of general practice care for chronic illness does not meet optimal standards.<sup>16</sup> Future models of general practice training must respond to this challenge and consider new approaches to exposing registrars to high-quality, systematically planned care for patients with complex chronic disease.

Although a career in academic general practice will probably always attract a small minority of doctors, all GPs require academic skills, including the ability to teach, audit one's practice using electronic data, and appraise and apply evidence. All doctors have a responsibility to contribute to teaching future generations of health care providers, particularly at a time of significant expansion of medical student and general practice registrar places.

Several approaches to training GP registrars to teach have been evaluated and shown to improve teaching aptitude.<sup>17</sup> Although there is support from Australian GP registrars to teach, few receive formal training in teaching skills and many GP supervisors do not believe registrars are capable of teaching.<sup>18</sup> Interest is growing in vertical integration of teaching in general practice, and the creation of teaching teams incorporating GP supervisors, registrars, pre-vocational doctors and medical students.<sup>19</sup> However, for this to be widely implemented, there must be due considerations of formal training, teaching space and appropriate financial recompense.

Critical reflection about one's practice and critical application of evidence should also become more prominent in general practice training. Teaching evidence-based medicine can be challenged by negative attitudes from GP supervisors<sup>20</sup> and the fact that general practice still has a relatively poor (but improving) research base.<sup>21</sup> If GP registrars are not taught to apply a research-based approach, doctors will not appraise evidence they are presented with, and may follow inappropriate advice or fail to challenge ill founded assertions.<sup>11</sup>

### **Additional training flexibility — should there be opportunities for further tailoring of training based on more explicit career planning?**

The current AGPT program includes a 6-month extended skills component that allows GP registrars to tailor their training to some extent. A fourth year of advanced training is available for those

### **2 Learning portfolios to determine clinical exposure in training**

The ReCEnT (Registrars Clinical Encounters in Training) study is an ongoing cohort study of the clinical and educational content of general practice registrar consultations. Registrars at General Practice Training Valley to Coast in the Hunter region, New South Wales, record (via a paper-based system) details of 60 consecutive patient encounters once every 6 months during their training. Data are coded using the International Classification of Primary Care version 2 (ICPC-2) system.

Registrars receive a feedback report describing their clinical exposure (patient demographics, reasons for encounter, problems managed), management practice (investigations ordered, medications prescribed, referrals made) and educational factors (learning goals generated, sources of assistance sought), compared to their peers. This is used as formative assessment, allowing the registrar to reflect on their patterns of practice and their levels of clinical exposure in various domains, and to plan future training terms. There is also scope for building profiles of clinical exposure in individual practices and feedback to registrars' supervisors.

Patient-encounter data can also provide novel information for program evaluation and quality improvement, as well as a platform for registrar-driven (and other) research projects. ♦

planning a career in rural and remote general practice. Future models of general practice training could develop this concept of advanced training so that GP registrars are competent across the whole curriculum and can elect to become proficient, or even expert, in certain domains based on explicit career planning.<sup>22</sup> This is consistent with trends towards general practice specialisation within group practices<sup>23</sup> and would replace the extended skills rotation, ensuring that GP registrars have longer to consolidate their skills and experience longitudinal care.

Advanced training options could be developed to cover specific clinical areas (eg, dermatology, aged care and Indigenous health), practice management, public health and health services management, or academic general practice. Some of these already exist in the AGPT program, but could be expanded to allow sufficient time and depth of exposure to gain additional qualifications. Internationally, there are examples of combining general practice training with research training to obtain a higher degree.<sup>24</sup>

Advanced training could offer combined programs leading to a Master of Science, a Master of Business Administration or, given sufficient time, a Doctor of Philosophy. Alternatively, it could lead to additional clinical qualifications, such as a diploma in skin cancer medicine or Indigenous health. Rotations could also be broader and include, for example, placements with primary health care organisations, state departments of health, or practice management teams. Thus, the advanced term would be important in the development of clinical leadership skills and specific proficiencies before completion of the AGPT program.

### **Vocational training duration — how much is enough to meet the future health care needs of Australia?**

What constitutes an appropriate duration for general practice training is currently under debate in several countries.<sup>5,11,25</sup> Some argue that this is the wrong question, which instead should be how to acquire the right competencies. Nonetheless, there is growing concern that, as general practice becomes more complex, a 3-year model is inadequate to produce doctors who are sufficiently compe-

tent and confident to enter independent practice.<sup>26</sup> The UK Royal College of General Practitioners has debated a 5-year program;<sup>11</sup> in the US, the Preparing the Personal Physician for Practice training program extends over 4 years.<sup>22</sup> In Ireland, expanding general practice training for a fourth year improved professional development and confidence to enter independent practice.<sup>27</sup>

We propose a 4-year program with a tailored final year of advanced training be seriously considered for Australian general practice (Box 1B). Ideally, this would include hospital rotations integrated with general practice rotations, retaining the current duration of hospital-based training (Box 1C). A simpler initial model would involve ensuring hospital rotations are accredited specifically for general practice training (Box 1B). Completion of the program would be followed by a formal continued professional development program for newly qualified GPs.<sup>28</sup>

## Summary

We have discussed a number of key questions about future models of general practice training that reflect changes to content, duration, place, and structure.<sup>5</sup> We believe new models of training in Australia must incorporate all these types of innovation.

We need to expand curriculum content to meet the challenges of managing complex and multiple morbidity within a clinical team which is integrated through e-health systems. GP registrars must learn to apply best evidence within a well designed practice system that operates as a teaching and learning organisation and values continuous relationships with its patients. We need to adapt hospital and community rotations to meet these educational requirements. An advanced training year should become standard to allow consolidation, exposure to longitudinal care and development of proficiency in areas of relevance to GP registrars' specific career plans. These changes would have significant financial and administrative implications for general practice training,<sup>29</sup> however, and could potentially affect the desirability of general practice training, especially for those choosing to train part-time.

Historically, registrar training in Australia has been recognised for its high standards,<sup>30</sup> but we need to plan for the future needs of the medical workforce and evolve so that newly qualified GPs are adequately prepared for the challenges facing the 21st century generalist.

## Competing interests

Belinda Guest is a board member of General Practice Registrars Australia and General Practice Training Valley to Coast.

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