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Martin, Anne Andrew; Laurence, Caroline Olivia Mary; Black, Linda Eleftheria; Mugford, Bruce V.

[General practice placements for pre-registration junior doctors: adding value to intern education and training](#) Medical Journal of Australia, 2007; 186(7):346-349

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# General practice placements for pre-registration junior doctors: adding value to intern education and training

Anne A Martin, Caroline O Laurence, Linda E Black and Bruce V Mugford

The Prevocational General Practice Placements Program (PGPPP), initiated by the Australian Government in 2003,<sup>1</sup> provides junior doctors with an opportunity to work in general practice (GP) or community settings as part of their training (Box 1). In South Australia, most placements have been at the pre-registration, PGY1 level (intern).

During the first 2 years after graduation, medical graduates gain knowledge, attitudes and skills that will equip them for further training.<sup>4</sup> Research in the United Kingdom (where GP posts at the pre-registration level have been available since the early 1980s) indicates that completing a GP term adds value to junior doctors' training years.<sup>5-11</sup> Benefits gained include: appreciation of psychological factors in illness;<sup>7,8</sup> experience of a wider variety of problems and procedural skills;<sup>11,12</sup> greater responsibility in managing patients;<sup>9,13</sup> improved communication skills;<sup>9,10</sup> and exposure to the interface between primary and tertiary care.<sup>9,11,12</sup>

In Australia, GP terms at the intern level of training have been rare, but in SA the success of a previous demonstration rural GP term for interns<sup>12</sup> led to an expansion of such placements under the PGPPP. In 2005, eight GP-term placements were made available to interns in SA: six rural and two in outer metropolitan areas of workforce shortage. This provided an opportunity for a detailed evaluation, particularly of the educational value of these posts.

Here, we examine interns' perceptions of how a GP term contributes to their training.

## METHODS

### Participants

Potential interviewees from the 2005 intern cohort in each of the five metropolitan teaching hospitals (THs) were identified on the basis of having undertaken a GP term plus at least one core term of intern training (general medicine, general surgery or emergency medicine) at the time of interview. Two or three interns from each of the eight GP placements were asked (by mail and a follow-up telephone call) to participate in the study; 20 out of a possible 42 interns were recruited for the study; none refused

## ABSTRACT

**Objective:** To examine pre-registration junior doctors' perceptions of the value of a general practice term in their training program.

**Design, setting and participants:** Semi-structured interviews, in five teaching hospitals in South Australia in 2005, with 20 pre-registration junior doctors (interns) who had completed a general practice term and at least one core term of intern training.

**Main outcome measure:** Comparisons between general practice and teaching hospital core training terms with respect to the domains of junior doctor education.

**Results:** Interns perceived general practice and teaching hospital terms to be complementary in their overall training program. The general practice term provided them with knowledge and skills they would not have acquired in the teaching hospital terms alone. One-on-one consulting, initiating patient management, and the opportunity to practise a range of practical and procedural skills were seen to be of particular value.

**Conclusions:** The general practice and teaching hospital terms both contribute to the training of interns, offering contrasting environments and experiences which enhance interns' professional and personal growth. General practice terms should be considered for inclusion in intern training programs across Australia.

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the request for interview. The proportion of interviewees in urban versus rural GP placements approximated that of the total GP-term cohort in 2005 (5 urban and 15 rural, and 10 urban and 32 rural, respectively). The mean age of the 20 participants (10 men and 10 women) was 27 years (range, 23-38 years). The core terms completed were general medicine (19 interns), general surgery (11) and emergency medicine (7). The GP term lasted 8-10 weeks.

### Procedure

Semi-structured interviews were undertaken between May and December 2005 by two of us (COL and AAM). As we are each linked to a different one of the two regional training providers managing the PGPPP for interns in SA, we each conducted interviews with interns associated with the other regional training provider. The interviews followed a predetermined script (Box 2), which was designed to reduce bias and elicit similarities and differences between rotations, rather than their negative or positive aspects. The questions were asked in a systematic and consistent way by both interviewers.

Interns were asked to compare their educational experiences in their GP and TH terms, with particular emphasis on the

domains of junior medical officer education as listed by the Postgraduate Medical Council of SA.<sup>4</sup> Interviews typically lasted between 30 minutes and 1 hour and were audiorecorded and later transcribed. Transcripts were provided to the participants for confirmation of accuracy before analysis.

Concepts and themes were identified by open coding<sup>14</sup> independently by two of us (COL and AAM) using qualitative data analysis software (NVivo, version 2.0, QSR International, Melbourne, Vic). Agreement on interpretation and inferences was reached through ongoing discussions, with subsequent adjustment of the coding system.

### Ethics approval

Approval was obtained from the ethics committees of all five teaching hospitals involved in the PGPPP.

## RESULTS

Interns described the contribution of the GP term to their training program in two ways. Firstly, they described it as part of a general experiential learning and professional development process across all terms throughout the year; for example, development of an understanding of ethical and legal issues

## 1 Summary of the Prevocational General Practice Placements Program (PGPPP)<sup>2,3</sup>

The program aims to:

- encourage junior doctors to take up general practice (GP) as a career, particularly in areas of unmet need;
- provide a positive and confidence-building experience in general practice; and
- enhance junior doctors' understanding of the integration between primary and secondary health care.

**Funding** is available to release junior doctors (PGY1–3) to undertake GP or community placements in metropolitan, rural, remote and regional areas.

**Placements** are developed through training collaborations between fund holders (eg, regional GP training providers), provider hospitals and training practices.

**The training practice** must be accredited for GP training purposes by the Australian College of Rural and Remote Medicine (ACRRM) and/or the Royal Australian College of General Practitioners (RACGP). If the doctor is an intern, the training practice must be accredited by the relevant postgraduate medical education committees.

**The GP supervisor** must be accredited by ACRRM and/or RACGP and provide supervision and mentoring during the placements. ♦

was seen to occur across all training terms with no issues specific to GP or TH terms. Secondly, they described particular contributions which were characteristic of the GP term and which complemented those of the TH terms. The themes reflecting these particular contributions are described here.

### Range of patient presentations

Interns described marked differences between the GP and TH terms in the types of patients presenting. GP patients had a wide range of more common, less serious illnesses than seen in the TH term (eg, rashes, children's health, coughs and colds, women's health, mental health). The patient population in the TH terms gave interns experience in dealing with less common, high acuity conditions. While knowledge of these conditions was seen as important, there was a relatively limited range of such conditions in each of the more specialised TH units.

### Practical and procedural skills

Interns described opportunities to gain experience in a wide range of practical skills in the GP term compared with more limited

skills training in the specialised core TH terms labelled as "general medicine" and "general surgery" (Box 3).

### Communication and counselling skills

Different communication and counselling skills were developed in GP compared with TH terms (Box 3). The acute and serious nature of patient problems in the TH terms gave interns opportunities for communicating with families and senior medical staff about their patients, as well as developing skills such as breaking bad news and gaining informed consent.

In GP terms, the interns reported having more time for counselling with individual patients. They also practised health promotion and lifestyle counselling:

... counselling that goes with the life-style side of things as opposed to just curing an acute illness and sending them back out. (*Intern 5*)

These skills were then used in the hospital setting.

### What interns actually did

While formal teaching sessions occurred in both environments, interns also described the work done as an important aspect of the learning environment. The descriptions of what the interns actually did showed marked differences between the GP and TH terms (Box 4).

### The learning environment

There were perceived differences in focus of the environments in which interns operated. The TH term was described as:

... not really patient-focused, it's more work-focused, because most of the patients have already been assessed ... All the interns do is all the things that ensure that the patient has all the medications and procedures done so that they can get well. (*Intern 12*)

In contrast, the GP term was seen to be more learning-focused rather than service-focused. The requirement for close supervision of pre-registration doctors in the GP term gave frequent opportunities for teaching and prompt feedback.

Every patient I saw I had to have one of the GPs come in and double check what I'd done and discuss it. (*Intern 19*)

### Patient management styles

Interns learnt to function within different patient management structures in the two environments. They were part of an established hierarchy of a large, busy team on the

TH terms, in which they adopted a specific, restricted role. Consultants and registrars were said to organise all the patient management, while the intern was given a list of tasks, following established protocols.

In contrast, within the team of general practitioners, the GP consultation afforded interns highly valued one-on-one experience with individual patients over their visit. In the TH terms, interns were too busy to spend much uninterrupted time with their patients. Interns doing GP terms were the first doctor to see the patient at the encounter and could practise (with supervision) diagnosis, investigation strategies and management planning, and develop their own consulting styles. Emergency medicine was the only TH term

## 2 Script of the interview

**Preamble:** *I would like to find out from you about your experiences during your general practice (GP) term and compare with one or more core terms that you might have completed, such as general surgery, general medicine or emergency medicine. I'd like to ask you to tell me the similarities and differences between your GP term and your core teaching hospital terms.*

**Example question:** This question is about the learning environment.

1. *How would you describe the learning environment for you in general practice?*
2. *How would you compare this with your core terms?*

### Question domains

- 1. Learning environment
- 2. Teaching methods
- 3. Supervision

*For the next questions about your learning experiences I'll be using the actual objectives for the intern training program listed by the Postgraduate Medical Council of SA.*

### 4. Learning experiences

- learning to accept clinical responsibility under gradually decreasing supervision
- consolidating skills in communication and counselling
- using diagnostic and consultant services with increasing discrimination
- developing an understanding of ethical and legal issues
- developing appropriate personal and professional attributes

5. *Finally I'd like to ask you how you felt the GP term fitted with your general intern training program — did it detract from, or enhance, your development of knowledge, skills and attitudes this year? In what ways?* ♦

**3 Skills gained by interns in teaching hospital and general practice terms**

Teaching hospital	General practice
<b>Practical and procedural skills</b>	
<ul style="list-style-type: none"> <li>• Inserting intravenous cannulas</li> <li>• Completing paperwork (eg, filling in drug charts, writing discharge summaries)</li> <li>• Chasing radiology results</li> <li>• Inserting nasogastric tubes</li> </ul>	<ul style="list-style-type: none"> <li>• Procedural skills (eg, skin lesions, suturing)</li> <li>• Dermatology (eg, diagnosis and treatment)</li> <li>• Ear, nose and throat examinations</li> <li>• Eye examinations</li> <li>• Assisting in delivering babies</li> <li>• Women's health (eg, Pap smears)</li> <li>• Assisting in theatre/anaesthetics/intubation</li> </ul>
<b>Communication and counselling skills</b>	
<ul style="list-style-type: none"> <li>• Delivering bad news</li> <li>• Communicating with families of patients</li> <li>• Dealing with angry patients and families</li> <li>• Counselling delegated to allied health staff</li> <li>• Negotiating with other medical staff (eg, for consults, admissions)</li> </ul>	<ul style="list-style-type: none"> <li>• Health promotion (eg, diet, exercise, smoking)</li> <li>• Counselling (eg, in women's health, domestic violence, sexually transmitted diseases, depression)</li> <li>• Patient education (eg, diabetes, contraception, sexually transmitted diseases, blood pressure control)</li> <li>• Communicating with private specialists about patients</li> </ul>

giving interns similar decision-making opportunities.

**Use of diagnostic and consultant services**

GP interns learnt to be more reliant on their clinical skills and judgement when faced with a lack of resources, particularly in rural practices. The cost of services to the patient also became more apparent during the GP terms.

When accessing consultant services, interns learnt to handle different intra-professional relationships on the GP and TH terms. For example, interns described needing to adopt different communication styles with specialists in the hierarchical TH environment than in the community setting.

**Personal and professional development**

**Time management and efficiency**

Skills in time management and efficiency were broadened by the GP term. In the TH term, interns had to cope with a high-pressure environment in which learning was said to be affected by the emphasis on throughput of patients.

The perception of the TH environment as stressful was also reported by some interns to have a negative impact on both personal and professional development.

The level of stress ... with lack of support just interfered with everything really ... you deal with a lot of angry stressed-out people all the time. (Intern 18)

The GP term was described as a more relaxed environment, with time for reflection, but still requiring a capacity to manage a list of patient consultations and, in rural placements, regional hospital visits and on-call shifts. Interns had more time to spend with individual patients, and there was less pressure to resolve problems quickly. They appreciated being able to follow-up their patients in the continuity-of-care environment of the GP term.

**The scope of medical practice**

Interns' understanding of the scope of medical practice was increased by their GP experience, and their experiential horizon was

broadened beyond the public hospital system and into private practice and Medicare. The need for bridging the interface between primary and tertiary care also became apparent; for example, the purpose of discharge summaries.

I think if I hadn't actually gone and done that [GP term], I wouldn't fully understand what it means for a GP to be sitting there with a patient in their room and not have any idea what went on in hospital. (Intern 17)

**The intern as a doctor**

Several interns reported feeling more "like a doctor" on a GP term than on a TH term.

I just developed a style for myself and how I'd deal with patients and situations ... In [general] medicine you run around all day feeling like a secretary. (Intern 14)

The consultation in GP terms was a key feature.

The reason I wanted to do medicine is because I like to diagnose things, which you hardly ever [do] in the hospital ... there's always the admissions done by the Registrar and all you do is write up the chart, put the Jelco in and little things like that ... whereas in general practice you sit there and you take a history, examine, investigate the patient to find out why he is presenting that way ... I have more job satisfaction. (Intern 12)

Interns found that the GP and TH terms were complementary in the overall intern program.

The general practice term was ... excellent for teaching the management of common conditions, and the most effective investigations to order for a whole range of conditions, which I found very useful ... But I've also found it very interesting and useful watching the consultants in the hospital as well and learning how to manage a whole array of conditions on a sort of a different level. (Intern 8)

**4 What interns actually did during teaching hospital and general practice terms**

Teaching hospital	General practice
<ul style="list-style-type: none"> <li>• Experience was work-focused</li> <li>• Worked as part of a large team</li> <li>• Followed orders of consultants/registrars/resident medical officers</li> <li>• Experience in ordering tests and interpreting results</li> </ul>	<ul style="list-style-type: none"> <li>• Experience was patient-focused</li> <li>• Involved in one-on-one consulting</li> <li>• Work involved decision making (under supervision)</li> <li>• Needed to rely on their own clinical skills and judgement</li> </ul>

## DISCUSSION

Our study has highlighted the contribution of a GP term to the intern training year. A GP term offered the opportunity for interns to broaden their knowledge and skills as doctors, particularly the skills required to manage undifferentiated patient presentations, and encouraged expansion of their knowledge of health care beyond that offered in tertiary care THs.

While the apprenticeship model of learning “by doing” and through “master as role model”<sup>15</sup> is used in both the TH and GP environments, the application is different. In the TH, interns learnt to perform basic tasks while they observed higher-level activities being performed by seniors; in GP terms, they had the opportunity to practise the higher cognitive functions of initial diagnosis and management of their own patients, as modelled by their GP supervisors. Similar comparisons between TH and GP terms have been drawn by others.<sup>9</sup>

The interns in our study described the wide range of patient presentations as an important aspect of the learning environment in the GP term. In contrast, they described some TH terms, particularly those in specialist units such as cardiology or colorectal surgery, as having a narrow range of patient presentations, although the placements were labelled “general medicine” or “general surgery”. The skills interns acquired in these TH terms were low-level and generic “intern skills”, such as inserting intravenous cannulas, and writing up drug charts; a general medicine intern did much the same things as a general surgery intern.

On the other hand, interns found their skill base was broadened by their GP-term experiences. They practised not only a range of different procedural, communication and counselling skills, but also had the opportunity to assess undiagnosed patients, exercise their own clinical judgement, perform one-on-one consulting, and draw up management plans. Other authors have described similar experiences for interns in GP terms but not TH terms.<sup>8,9</sup>

The fragmentation of modern medicine in THs into many subspecialties, with short patient stays, means that “patients tend to either be having things done to them or to be at home”<sup>16</sup>.

The GP term gave the interns an opportunity to experience and practise a model of medical care requiring a different range of skills undertaken in a different context. They learnt about the roles of general practi-

tioners and the importance of good communication between the different levels of care, findings also reported by others.<sup>9</sup>

The connection of the interviewers (A A M and C O L) with the regional training providers managing the PGPPP intern program could have reduced the validity of the data, but this potential limitation of our study was avoided, as described in the Methods.

The Postgraduate Medical Council of SA states that “the principal objective of early postgraduate education is to provide all medical graduates ... with the knowledge, attitudes and skills that will equip them to proceed to specialist vocational training and general practice”, and notes that interns in SA are placed in a “hyperacute setting” in THs, giving them “unprecedented access to a wide range of learning opportunities”.<sup>4</sup> The interns in our study described a wider range of learning opportunities when a GP term was included in their program.

Our study confirms the key role of the TH-term experience for interns, but, in contrast to GP terms, identifies a paucity of opportunity for them to initiate the diagnostic process. Medical problems seen in GP as “common” can only be defined as such, and managed appropriately, after a diagnosis has been made. Interns have recognised their role in the diagnostic process as a key feature of their GP terms.

The SA experience provides evidence of the valuable contribution of GP terms to intern training, complementing the TH component of learning. GP terms should be considered for inclusion in intern training programs across Australia.

## ACKNOWLEDGEMENTS

We would like to thank Professor Richard Ruffin and Ms Karen Grace of the Postgraduate Medical Council of South Australia (PMCSA) for their support of this study, and advice in preparing the manuscript. The PMCSA provided funding for interviewee participation and transcribing of interviews.

## COMPETING INTERESTS

None identified.

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(Received 24 Aug 2006, accepted 12 Dec 2006) □