

# Responding to registrars' in-consultation calls for assistance: Practical implications from the ReCeNT project

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## Background

General practice registrars in Australia are expected to identify and address their knowledge or skills gaps during consultations. The content and frequency of registrars seeking assistance and the factors that influence this have been studied for 84,723 consultations. Term 1 registrars asked their supervisor for help in 11.0% of consultations, but by term 4 this reduced to 1.2% of consultations. Assistance was most often for skin or musculoskeletal conditions, and more often about management than diagnosis.

## Objective

This article discusses the implications of this information for Australian general practice training.

## Discussion

Registrars asked their supervisors for assistance despite having ready access to electronic information. Practices can anticipate supervisor interruptions approximately every tenth registrar consultation. The greater input required by registrars from supervisors earlier in training should be acknowledged by more flexible standards and payments to practices. A priority for general practice supervisor professional development is how to teach the management of complex patients, dermatology and musculoskeletal medicine.

General practice supervisors oversee general practice registrars<sup>1</sup> as they work and learn in practice.<sup>2</sup> During consultations, registrars are expected to identify and address gaps in their knowledge or skills. High-risk consultations require discussion with a supervisor;<sup>3,4</sup> anecdotally, however, supervisors' involvement varies from regular review of registrars' work to oversee patient safety, to instructions of 'call me if you need me'. A minimum time is set for structured weekly teaching, but ad hoc interactions between registrars and supervisors when both are consulting are less prescribed and, arguably, under-recognised in policies.<sup>5</sup> The content of 'corridor consultations' was listed previously,<sup>5</sup> but does not include:

- how often registrars identified gaps
- which other sources of assistance they used
- the factors associated with this behaviour.

This information gap about requests for assistance has implications. Recruiting new training practices and supervisors for the influx of medical graduates seeking postgraduate training<sup>6</sup> will be difficult without being able to predict the day-to-day workload of supervision. For general practitioners (GPs), ad hoc supervision is difficult as they have to balance the registrars' needs and patient safety against the needs and quality of their own patient consultations.<sup>7,8</sup> Training on managing such requests has been limited by a lack of data on their epidemiology. Similarly, without the demographic information, practices cannot adequately plan for changes to supervisors' workflow from registrars' questions.

Registrars can find it difficult to decide on an appropriate level of help-seeking. Junior doctors in hospitals want to seem competent and carefully consider the personal/professional balance of asking for help.<sup>9</sup> General practice registrars are likely to make similar judgements knowing that asking many questions impairs a practice's efficiency, but asking too few restricts their learning and potentially compromises patient safety. From patients' perspectives, seeing registrars can provide fresh eyes on old problems, but cause time delays if supervisors have to be called.

Policies for supervisors' ad hoc consultations have been based on educational theory and expert recommendations, not Australian evidence. Observation of supervisors and registrars in practice has now revealed sociocultural influences on their ad hoc interactions;<sup>10</sup> the Registrars Clinical Encounters in Training (ReCEnT) project has now explored the epidemiological gap. The detailed ReCEnT methodology<sup>11</sup> is summarised in Box 1, and findings regarding registrars' in-consultation help-seeking from all sources<sup>12</sup> and from supervisors<sup>13</sup> have been published. In this paper, we focus on the practical implications of this information for the Australian general practice training program, general practice supervisors, medical educators, general practice registrars and patients.

## What we found

Six hundred and forty-five registrars recorded 84,723 consultations covering 131,583 problems or diagnoses. Consecutive consultations were recorded approximately mid-term (at three months for full-time registrars and six months for part-time registrars). General practice supervisors were contacted in 9.2% of consultations and for 6.9% of all problems or diagnoses managed. By comparison, registrars consulted other sources for problems or diagnoses in:

- electronic sources – 6.5%
- hardcopy sources – 1.5%

- specialists – 0.9%
  - other health professionals – 0.6%.
- Supervisors were most often asked about management (53.1% of instances) rather than diagnosis (11.7%), with 35.2% accounting for both diagnosis and management. The most common 'systems' (as per the International Classification of Primary Care [ICPC])<sup>14</sup> where registrars needed assistance were skin (20.0% of all problems/diagnoses), musculoskeletal (12.6%) and general and unspecified (12.0%).

Term 1 registrars asked their supervisors questions most often (11.0% of consultations). This reduced to 5.4% of consultations for term 2 registrars, 3.2% for term 3, and 1.2% for term 4. More senior registrars (term 1 versus term 2 versus term 3) were associated with a shift to relatively greater use of electronic and hardcopy sources.

In addition to registrar term and diagnosis or management, the most relevant statistically significant associations of help-seeking from a supervisor included:

- longer consultations
- fewer problems addressed in the consultation
- generation of personal learning goals for the registrar.

These consultation factors were also associated with a preference for a human rather than a non-human source of information. We consider these particular consultation factors to be markers of

more complex, challenging problems. A summary of how different consultation factors were associated with in-consultation information-seeking is shown in Table 1.

## Implications Australian general practice training program

The lower frequency of requests for assistance from registrars in later terms provides evidence for the 'progressive independence' needed in medical training,<sup>15</sup> as seen in previous North American family practice research.<sup>16,17</sup> Knowing the average workload for supervisors at different stages of registrars' training may help in recruiting new practices to general practice training and enable existing practices to trial alternative methods of structuring clinical supervision.<sup>18-20</sup> However, this information was obtained after registrars had been in a term for approximately three months (full-time equivalent) and does not predict the frequency of questions before or after that time.

Research on the relative cost-benefits of general practice training for practices<sup>21-23</sup> did not consider the financial implications of in-consultation questions. ReCEnT has now partially quantified this as we have established the frequency of, if not the time taken for, help-seeking from supervisors. Changes to the management of general practice training in Australia provide an opportunity to inform the relative allocation of funds to practices, individual supervisors for supervision and teaching, and training providers for registrars at different stages of training.

## Supervisors

### Acknowledging supervisors' skills

Registrars requested information or assistance from supervisors more often than from non-human sources, such as guidelines or the internet. This seemed especially so for less experienced registrars and in more complex cases. These registrars have trained in 'the internet age' and yet chose to frequently

### Box 1. Registrars' Clinical Encounters in Training (ReCEnT) project

ReCEnT is an ongoing cohort study of Australian general practice registrars who record data for 60 consecutive consultations half-way through their three general practice terms. They document demographics of themselves and their practice and, for each consultation:

- the patient's demographics and problems or diagnoses
- the investigations requested
- referrals made
- educational aspects, including sources of in-consultation advice and information, and learning goals generated.

Participants in this study were: General Practice Training Valley to Coast, the Victorian Metropolitan Alliance, General Practice Training Tasmania, and General Practice Training Adelaide to Outback. Ethical approval for the research was obtained from the Human Research Ethics Committee, University of Newcastle.

consult human resources. Clinical guidelines usually relate to single conditions and can have contradictory recommendations.<sup>24</sup> The wisdom and skill of senior doctors, and their ability to formulate management plans in response to a myriad of conflicting problems and contextual factors, seems valuable. Supervisors may not easily be replaced by electronic information sources at the point of care, especially for the undifferentiated and multimorbid illnesses that characterise much of general practice care.

### Planning

General practice supervisors could use this information to adjust their own time commitments. At the beginning of the training term, when more junior registrars will need greater support, general practice supervisors could reduce appointments available for routine consultations. Currently, general practice supervisors

receive funding for teaching time but there is variability between regional training providers (RTPs) as to whether this includes ad hoc supervision. For supervisors who are practice owners, this initial time investment in registrars is likely to be rewarded by greater practice efficiency later in the term. Other than in the intrinsic satisfaction at seeing registrars learn,<sup>25</sup> the rewards for supervisors who are not practice owners are less clear and may need to be addressed by more flexible systems for funding supervision and teaching.

### Medical educators

Medical educators are crucial in translating these findings into registrar teaching, supervisor skills development, and giving advice on efficient and effective teaching strategies. The frequency that supervisors were asked about the management of complex problems, skin

and musculoskeletal problems suggests supervisor training could prioritise learning about how to teach these topics.

### Registrars

Registrars are also likely to benefit from educational input regarding general practice dermatology and musculoskeletal medicine early in their training. More generally, registrars do not know how often consulting their supervisors is appropriate. As newcomers, they balance their desire to appear competent<sup>26</sup> with their need for assistance. It may be difficult to interrupt senior doctors during their consultations, even after specific instructions to do so. Other registrars may take these instructions very literally and seek assurance from their supervisors even when they know what to do. Supporting registrars to reflect on their help-seeking patterns and providing information about their peers' help-seeking patterns will give them a perspective from which to reflect on their own practice<sup>27</sup> and learning needs.

Registrars' relatively increased use of electronic sources later in training suggests that they become more adept at finding relevant information. New registrars may benefit from lists of commonly used reliable sources and simulated sessions practising accessing resources without the pressure of clinical consultations. Explicitly teaching registrars strategies for seeking information from their supervisors may also help.

### Patients

General practice training is unusual among medical specialties as most of this occurs in private practice, and consultations are billed according to their length. Our information does not document whether billing practices were affected for registrars who called for assistance. This would be likely to affect patients' willingness to see registrars. While the inclusion of the supervisor can be reassuring to patients as well as registrars, if consultation length and

**Table 1. Summary of the logistic regression analysis of factors associated with general practice registrars asking for information from another person, rather than a non-human source, during a consultation**

	Patient factors	Registrar factors
Increased likelihood of asking for information	<ul style="list-style-type: none"> <li>• Aged 0–14 and older than 65 years</li> <li>• Male patients</li> <li>• New problem</li> <li>• Patient known to the trainee</li> <li>• Increased duration of consultation</li> <li>• Fewer problems discussed in the consultation</li> <li>• Assistance sought for diagnosis and management</li> <li>• Referral made</li> <li>• Imaging or pathology requested</li> </ul>	<ul style="list-style-type: none"> <li>• Full-time registrars</li> <li>• Younger registrars</li> <li>• Female registrars</li> <li>• Generation of personal learning goal</li> </ul>
No statistical association	<ul style="list-style-type: none"> <li>• Aged 15–64 years</li> <li>• Female patients</li> <li>• Patient new to the practice</li> <li>• Patient from a non-English-speaking background</li> <li>• Aboriginal and/or Torres Strait Islander patients</li> <li>• Socio-economic Index for Areas, Index of Relative Socio-economic Disadvantage</li> </ul>	<ul style="list-style-type: none"> <li>• Country of primary medical qualification</li> <li>• Prior experience at the practice</li> <li>• Previous health qualifications</li> <li>• Postgraduate medical qualifications</li> </ul>

costs go up, this could reduce patients' willingness to see registrars.

## Future research

This body of research has filled gaps in our knowledge about current general practice training norms in Australia. The overall rate of in-consultation information seeking seems low for a training program. This is possibly due to a reluctance to disturb supervisors and the training structure limiting questioning and learning; this could be further explored. While we may have established norms in Australia, we still do not know if these frequencies are optimum for registrar education, efficient use of supervisor capacity or patient safety. Correlation with quality of care provided by registrars determined via clinical audits or case note review<sup>28</sup> might reveal the level of registrars' insight into their limitations and gaps. However, the absence of public comment of increased complaints or claims against registrars by regulatory authorities and medico-legal organisations is reassuring.

The Canadian model, in which supervisors review every case seen by registrars, arguably creates efficiency by ensuring registrars learn from each case.<sup>29</sup> Conversely, registrars who were remotely supervised in Australia and Canada found that they learnt more by having clinical responsibility and less immediate access to their supervisor.<sup>30</sup> Research studies that trial different systems and thus rates of supervisor-registrar interaction might demonstrate their comparative merits and costs.

Further areas for research are establishing the time taken by 'interruptions' and how supervisors and practices influence this, plus the rate of ad hoc consultations. Our research also found intriguing regional differences in questioning rate across the four participating RTPs. We are not aware of other evidence that associates an external training organisation with in-practice behaviour, and this finding merits further exploration. Intensive formal teaching on common general practice

problems and their management prior to general practice registrars' placement in practice could be trialled to see whether this affects registrars' confidence and rate of seeking assistance.

## Conclusion

This research provides empirical evidence for the importance of the apprenticeship model of general practice training in Australia. Registrars' preferential use of supervisors for the more difficult aspects of clinical practice is evidence for the importance of retaining the apprenticeship model, no matter how efficiently information technology can deliver facts.

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