THE WILDERNESS INSTRUCTOR

Development of the Special Skills Post in Expedition Medicine for General Practice Registrars in Australia

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Wilderness, mountain, and expedition medicine training for physicians is now well developed in North America and Europe. This paper describes the development and content of the first such program in Australia. The Special Skills Post in Expedition Medicine is a 6-month post, developed by General Practice Training Tasmania, that is integrated into general practice training and combines clinical placements in travel medicine, general practice, emergency medicine, a self-guided workbook covering core and elective topics, and an 8-day field trip.

Key words: expedition medicine education, special skills post in general practice training

This article describes the development of a 6-month special skills post in expedition medicine, available as an optional part of general practice training in Tasmania, Australia. The rationale for the post, the process of development, the curriculum, the delivery modes, and future directions of the program are described.

For the purposes of this article, the term “expedition medicine” can be understood to include a broad range of wilderness medicine topics relevant to remote situations.

Rationale

In contrast to North America and Europe, Australia has no history of formal physician training in expedition medicine. This is remarkable given the extent of participation of Australians in outdoor sport and recreation.

A number of factors have influenced the decision to develop this post. First, in Australia there is an increasing tendency for general practitioners to develop an area of special interest and expertise, and this has been reflected in the training requirements laid out by the Royal Australian College of General Practitioners and the Aus-

tralian College of Rural and Remote Medicine.¹ This has in turn led regional training providers to develop a menu of special skills posts from which registrars can choose.

Second, adventure tourism has grown rapidly. Some tour operators require doctors with appropriate skills for tours, such as Antarctic cruises, mountaineering expeditions, and desert travel. As medicine and medical training have become more subspecialized, it is becoming harder to find generalist doctors with a wide range of procedural skills.² At the same time, an increasing focus on clinical governance highlights the need for doctors to have appropriate training for their areas of clinical practice.

Recruitment and retention of doctors to rural and regional areas of Australia have become increasingly difficult. It is hoped that this post will attract doctors to Tasmania and that some of these doctors will choose to spend some of their future time living and working in the state.

The Special Skills Post in Expedition Medicine aims to provide registrars with a comprehensive grounding in this discipline through a 6-month course consisting of travel medicine clinic sessions, continuing general practice sessions, emergency medicine sessions, a self-guided workbook, and an 8-day field trip. General practice registrars have access to the Australian Government Ant-

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arctic Division Polar Medicine Unit staff and resources in Hobart during their term and on the field trip.

Developing the Post

A steering committee was established comprising local interested and relevant organizations and individuals who are the authors of this paper. A literature search revealed a very limited number of similar published programs,^{3,4} although existing curricula for short courses were easy to access.⁵ The concepts and syllabus of the Union Internationale des Associations des Alpinistes-Internationale Kommission für Alpines Rettungswesen-International Society of Mountain Medicine (UIAA-IKAR-ISMM)-accredited International Diploma in Mountain Medicine (DIMM) provided in Europe⁶ and the UK⁷ were examined. Although these associations provided useful ideas, it was decided that the concept of mountain medicine alone was too limiting for the Australian context. Thus, the medical curriculum for our post was expanded to include problems encountered in desert and marine environments and tropical and travel medicine, as well as the traditional mountain topics of cold injury and altitude-related illness. It was decided that some topics should be “core” compulsory topics and that others should be elective topics that fit the specific interests of the individual registrars.

Field skills were considered to be important, because people cannot look after others in harsh environments if they cannot function effectively themselves.⁸ Given the broad clinical scope of the curriculum, it was felt that the compulsory field skills should be similarly broad, of a lower technical standard than that required for the DIMM,⁹ and specifically designed to suit the local context.¹⁰

The Curriculum

The curriculum was designed around the 3 core functions of the expedition doctor:¹¹

- Pre-expedition health and related logistical planning
- Providing health care to expeditioners and locals while on expedition
- Teaching first aid and medical skills to others

The full curriculum document is available online.¹²

Formative assessment during training is an integral part of the post and is ensured through the design of both the workbook and the field trip. At present there is no formal professional or higher education award available, although registrars have the opportunity to com-

plete the Wilderness First Aid Certificate as part of the field trip.

Delivery Modes

The 6-month post was developed so that it is based in the travel medicine and general practice clinic in Hobart run by one of the authors (M.T.). The registrar undertakes sessions in mainstream general practice and in the travel medicine clinic, supervised by a doctor with extensive travel medicine experience. Two sessions per week are spent in the emergency department of the local hospital. This is scheduled so that the registrar can participate in the department's tutorial program.

A workbook was developed to present the curriculum and provide a practical means of learning the basic concepts and principles of each topic.¹³ The workbook has a consistent structure for each topic: learning objectives, core reading/knowledge, questions for reflection, task, and further reading. This is in keeping with adult learning principles. The travel medicine section of the workbook provides the basis for weekly travel medicine tutorials held in the clinic. The other topics are covered through self-paced study by the registrar and regular meetings with one of GPTT's medical educators (E.A.).

The workbook only provides for the bottom 2 tiers of Miller's pyramid (“knows” and “knows how”).¹⁴ Skill acquisition, application of knowledge, and performance (“shows how” and “does”) are considered extremely important in this context.¹⁵ Although the travel medicine clinic provides a suitable environment for learning and assessment of the travel medicine components, it was decided that a specially designed 8-day field trip would be the most appropriate way to teach practical skills.

The Field Trip

The first field trip was run in July 2006 for 2 reasons. First, there were only 2 registrars per year undertaking the post, and it therefore made sense to run one course that overlapped the end of the post for the first registrar and the start of the post for the second registrar. Second, the choice of mid-winter ensured more difficult conditions in which to run scenarios and also provided an opportunity to teach snow and ice skills, which in Australia are typically poorly developed by outdoor enthusiasts.

The field trip was run jointly with Drysdale Institute, Tasmania's Technical & Further Education (TAFE) College that provides professional certified courses in outdoor recreation. Thus there were guides, outdoor instructors, and doctors learning with, and from, each other.

Course evaluation demonstrated that this combination was popular.

The field trip syllabus is available online.¹² The course comprised theoretical sessions, indoor practical sessions, and outdoor scenarios. The scenarios started out as simple 1-person problems and developed through the course into complex multicasualty scenarios and ones requiring a coordinated small-scale search and rescue response. Scenarios were run during the evening and as early morning “surprises,” as well as during the day. A thorough debriefing of each scenario was undertaken to provide feedback to the participants. A sample scenario can be found online at <http://www.wemjournal.org>.

Evaluation

Evaluation of the 6-month course was carried out using a semistructured interview technique by one of the authors (E.A.). This method was chosen because only 2 registrars had participated in the course. Evaluation of the 6-month course was positive and described as a “fantastic opportunity.” The travel medicine clinic provided “really good teaching [and an] excellent trainer [who was] completely approachable.” The workbook was thought to be “very good and pitched at an appropriate level.” One registrar saw it as “good for helping me to see beyond my own experience and into other environments.” There were some administrative teething problems with the first registrar, for whom it was also a first experience in general practice. This combination led to a drop in income (worked slower and therefore saw fewer patients) and some difficulty in completing all the workbook topics. The second registrar saw the program “as a work in progress” and thought that “with the extra field trips it will lead to a big improvement.” The field trip had a “great mix of people with guides teaching outdoor skills and doctors teaching medical skills.” It was described as “fun” with “elaborate scenarios to test our skills.” Evaluation of the program continues as more doctors participate.

Future Directions

General Practice Training Tasmania is currently expanding the program in several ways. First, it is making the special skills post available to mainland training providers. The regular clinical placement will occur in the registrar’s home town, General Practice Training Tasmania will provide educational support for the workbook topics using distance learning techniques, and the registrar will travel to Tasmania to attend at least 1 field trip.

Second, the field trips are being opened up for other doctors to attend. There will be 3 field trips in 2007, each with the same core components but with different themes: marine environments in the April course, snow and ice in the July course, and mountain medicine in the November course.

Finally, General Practice Training Tasmania and the Australian Government Antarctic Division’s Polar Medicine Unit are exploring options for a certificate/diploma/master’s program.

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