Rural Medical Education in New Zealand

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Introduction

Approximately 400 domestic medical students (excludes overseas students) graduate from the two New Zealand medical schools in Auckland (Auckland University) and Dunedin (Otago University) each year [1]. Although the number of graduates is increasing each year, there remains a shortage of rural practitioners [2]. Among the perceived disadvantages of rural practice are relative isolation coupled with onerous on call duties, the lack of specialist training opportunities and poor medical education.

Exposure to rural medicine occurs throughout the undergraduate curriculum. Opportunities to experience rural practice are available at the house surgeon level; postgraduate specialist training in rural and provincial hospital practice is a recognised training pathway. For doctors working in rural practice, as well as for those learning online, both regionally-provided education and specialist emergency medicine training (including trauma) are available, in addition to local and international conference opportunities.

This article outlines these aspects of medical education for potential and current rural doctors.

Undergraduate Medical Education

The undergraduate medical course is 6 years long. Final exams are taken at the end of the fifth year and the sixth year is spent consolidating clinical skills in general practice and hospital specialities. Exposure to rural medical practice begins in Year 2 or 3 while medical students are in the pre-clinical phase before they see patients. Students are either attached to a general practice in an observational capacity or spend a week in a rural town investigating health care facilities and speaking to a wide range of health providers, including general practitioners, pharmacists, Maori Health units, midwives, district nurses and many others.

More substantial time is spent in rural general practice during Years 4, 5 and 6. Students have placements for between 2 and 6 weeks, depending on which medical school they are attending. During these attachments they spend most of their time supervised and mentored by a rural general practitioner. They are given their own room and carry out consultations before they are reviewed by their supervising general practitioner. Students experience the breadth and depth of rural practice, which includes palliative care, minor surgery, rest home visits, on call and emergencies which present at the surgery or in the community. During their time in practice, they also write up, present and discuss several cases focussing particularly on community aspects of medical care.

Rural Medicine Immersion Programme

At both universities Year 5 students may apply to study on the year-long regional-rural programme. It integrates primary, secondary and tertiary medical care through real-life experiential learning. During this year students are guided and mentored by local and visiting tertiary hospital specialists, the Maori health faculty and providers, mental health teams, midwives, pharmacists, physiotherapists, rural general practitioners, rural hospital generalists and rural nurses. The curriculum is delivered remotely and use of IT (audio and video conferencing equipment) is widespread, allowing frequent access to city-based specialist services, and maintaining critical communication lines with fellow students. There is a strong emphasis on self-directed learning.

A recent Otago rural immersion programme student wrote:
"The biggest difference for the rural immersion programme (RMIP) is that it is really great for clinical training - more clinical time and more hands on, but also much more self-directed, and less dedicated specialty teaching/exposure. We got far more clinical exposure than the city-based students, eg in paediatrics, 5th year students in Wellington have a 10 week paediatric run, during which they only spend one week attached to a team in the hospital (as well as some bedside teaching and 2 weeks in the community). We had 2 half-day tutorials every week, and apart from that we were in the hospital or GP clinic working with patients and with the consultants the whole time.

What's more, there was only one of us at a time in said clinical placement, so we were always lucky enough to be one-on-one with the consultant or GP. There were no house surgeons or registrars, which meant we got teaching from very experienced healthcare providers, and also had much more of a role to play, rather than just watching over someone's shoulder and getting in the way!"

"There is always the worry with RMIP about getting enough specialty exposure as most of the centres are generalist, and about learning the right things for exams. However I found that this was not the problem we thought it might be, as during the year you do end up seeing lots of the common presentations of each specialty, and can follow their notes or even send them to the tertiary hospital if referred. There's also a lot of content that we are not directly taught of course, but this can be covered in textbooks such as the Canadian "Toronto Notes" that are very popular here, and Oxford Clinical Handbooks which is what I used."

"To be honest, I chose RMIP because I wanted to spend the year mountainbiking and skiing in Queenstown, but I would definitely choose to do it again, not only to spend time in a new place, but also for the wonderful one-on-one teaching opportunities, the much friendlier environment, the huge amount of clinical experience we get compared to the city-based students, and the fact that we had a role and were able to be part of the team and be useful, hardly ever just observing. I think it was really really beneficial to me, and I was lucky to do it."

Postgraduate Medical Education

House Surgeon General Practice

The postgraduate rural general practice training programme was set up in 2002 and offers a three month run in a rural practice for Year 2+ postgraduate hospital doctors. The programme is run by the Royal New Zealand College of General Practitioners (RNZCGP). It aims to expose junior doctors to rural general practice, rural medicine and training outside the hospital setting, with the hope of influencing their future career plans towards work in rural general practice. During the attachment they see their own patients, with a supervising GP on hand for advice and help when needed. Trainees are expected to see a diverse range of patients with a greater level of personal autonomy and responsibility for patients than in hospital settings. These experiences are designed to improve their understanding of primary care, and the importance of an effective GP-hospital interface. The attachment includes 2 hours protected teaching from an accredited teacher each week, which is funded by the RNZCGP, as well as protected time for study and learning.

General Practice Registrar

Doctors entering the General Practice Training Programme (GPEP) can choose to work in a rural practice, to undertake primarily practice-based learning, guided day-to-day by a GP teacher. In addition to all the usual clinical work, review of cases and consultations, one-on-one teaching and informal discussions, rural trainees take part in PRIME (Primary Response In Medical Emergencies) training (see below).

PRIME Training

The PRIME programme is a jointly commissioned project funded by the Ministry of Health and ACC (Accident Compensation Corporation – a government funded insurance company covering all accidents). It is administered by St John's, New Zealand's ambulance service. It has been developed to provide both the coordinated response and appropriate management of emergencies in rural locations. The PRIME programme utilises the skills of specially trained GPs and/or rural nurses in areas to support the ambulance service where the response time for assistance would otherwise be significant or where additional medical skills would assist with the patient's condition. The key objectives of PRIME are to support the ambulance service with a rapid response to seriously ill or injured patients, and to provide higher level medical skills than may otherwise be available from the ambulance service in rural communities.

Rural GPs and nurses are initially required to undertake a 5 day PRIME training course for trauma and medical emergencies. Then every two years they need to update their skills with a 2 day refresher course. Both courses include theory and practical sessions including managing mock vehicle accidents, and scenarios with multiple injuries.

Postgraduate Diploma in Rural and Provincial Hospital Practice

This is an advanced nationally recognised qualification for medical practitioners who staff rural and provincial hospitals. These doctors require both broad based and specific skills, which may extend beyond that of rural general practice. Core papers include The Context of Rural Hospital Medicine, Communication, Obstetrics and Gynaecology, Surgical Specialties, Medical Specialties, Cardiorespiratory Medicine and Trauma/Emergencies. A number of elective papers from a wide variety of topics, such as Maori Health, Travel Medicine, Ethics and Wilderness and Expedition Medicine can be studied. The programme usually takes 2-5 years to complete in part time study.

Rural Hospital Medicine Training

The Rural Hospital Doctor training pathway provides vocational education for rural hospital doctors which prepares them to work in the community's rural hospitals. During this training rural doctors acquire a core body of generalist knowledge as well as specific skills and attitudes that are needed to practice competently in a rural environment and a rural hospital.

The training programme is divided into an academic programme, approved clinical attachments and a final assessment. The academic programme is run either by the University of Otago (Diploma in Rural Hospital Medicine) or the University of Auckland (Diploma in Community Emergency Medicine). Trainees are also required to successfully complete EMST (Early Management of Severe Trauma), ATLS (Advanced Trauma Life Support) Level 7 and APLS (Advanced Paediatric Life Support) courses. The academic component is spread over 3-4 years.

The clinical training programme comprises a minimum of four years full-time equivalent in compulsory, recommended and elective training attachments. The compulsory runs include one year in rural hospital medicine and 3 or 6 month runs in general medicine, emergency medicine, paediatrics, anaesthetics/ICU and rural general practice.

The Division of Rural Hospital Medicine New Zealand (part of the RNZCGP) accredits the clinical attachments, facilitates education, and provides processes to ensure clinical skills have been acquired. It also administers the final assessment for Fellowship (Vocational recognition).

Before entering into rural hospital medicine training, doctors have to have completed at least two full-time equivalent years of appropriate medical experience after graduating. This can include rural hospital and rural general practice runs. On entering the programme the registrar is assigned an Educational Facilitator (a vocationally registered rural hospital doctor). The registrar and educational facilitator produce a professional report and training plan. The report identifies areas of prior learning and learning needs. The training plan will include intended clinical attachments, academic qualifications needed to meet the registrar's identified learning needs, and requirements for fellowship.

There is considerable flexibility both at entry and exit from rural hospital training and practice. Accreditors make it possible to train concurrently in, for example, rural hospital medicine and another generalist scope of practice such as general practice or emergency medicine.

Summary

Exposure to rural medical education starts in the undergraduate medical course with students spending time in rural general practice. Some students have the opportunity to study for one year on the Rural Medicine Immersion Programme as part of their undergraduate studies. Experience in rural medicine can be acquired as a junior doctor and at registrar level in general practice training. There is a postgraduate diploma in rural and provincial hospital practice and vocational training in rural hospital medicine for rural hospital doctors.

References

1. Medical student statistics – Australia and New Zealand. (2015). Accessed: August 10, 2016
http://www.medicaldeans.org.au/wp-content/uploads/2015-Table-1.pdf
2. Garces-Ozanne A, Yow A, Audas R. Rural practice and retention in New Zealand: an examination of New Zealand-trained and foreign-trained doctors. N.Z. Med J. 2011, 124: 1329.