The Design and Development of Training Curricula for Rural General Practitioners

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Introduction
The Rural Medicine Curriculum Design Project was undertaken between April and December 1992, under the auspices of the Royal Australian College of General Practitioners, Faculty of Rural Medicine, and was funded by the Department of Health, Housing and Community Services, Rural Health Support Education and Training program, to whom we are indebted.

The project was designed in response to three clearly identified needs:

a) the need for specific vocational training for those preparing for entry into rural practice and those existing practitioners wishing to update or upgrade their skills, especially in procedural areas;
b) the need to address the continuing difficulties in providing such training, especially in providing suitable hospital posts, and
c) the need to support rural doctors and their families in areas other than education by contributing to the proper medical servicing of rural areas, particularly with appropriately trained locum relief.

Background
Equity of access to health care by rural Australians is a central issue in the current debate on health services in this country. Some inequities of access, especially those relating to certain specialised services, are well documented. In their study of the perceptions of the need for health care services by rural communities, Humphreys and Weinand (1991) found that members of those communities valued a local doctor and a local hospital most highly.

In 1989, the Report of the Senate Select Committee on Health Legislation and Health Insurance (Parliament of the Commonwealth of Australia 1989) urged that the 'maldistribution of doctors between urban and rural practice' be addressed. In response, Rural Health Care Task Force (AHMAC 1990) acknowledged the inadequacy of training for rural practice. The National Rural Health Strategy which emanated from the National Rural Health Conference in Toowoomba in February 1991 stated explicitly that 'change in both structure and curricula is required'.

Major government reports and research consistently indicate that the greatest deficit in postgraduate medical education and vocational training is in procedural training. Vocational training is the major area in which inadequate preparation for rural practice is identified by rural doctors, particularly in the procedural disciplines of surgery, anaesthetics and obstetrics.

It is this area which forms the focus of the Rural Medicine Curriculum Design Project whose task was to design and develop curricula for advanced training in surgery, anaesthetics and obstetrics for rural practice.
Much of the groundwork for the project had been established during 1991, when the Rural Doctors' Association of Australia, in consultation with the relevant specialist colleges, agreed position papers on specific advanced training for rural doctors in the three disciplines. Tribute should be paid to Dr Jack Shepherd as the driving force behind the work at this stage. This work entailed considerable effort and goodwill, and its contribution to the outcomes of the final project cannot be over-estimated. In parallel, the establishment of the Faculty of Rural Medicine, by RACGP in early 1992, created the organisational focus through which specific curricula could be developed.

Project Design

The stage was reached, in early 1992, when this considerable endeavour required research design, organisation and structure. The task, undertaken by Dr Craig and myself on behalf of the Faculty, was to design a working framework for the project and to undertake its management.

The project design divided the task into three stages, the first of which is complete. Phase One involved the design and development of curricula, Phase Two, proposed the trialing of these curricula in accredited teaching posts in 1993 and their subsequent evaluation, and the third stage allows for the establishment of a national model after opportunities for further refinement of both the curriculum design and implementation.

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By these means it is intended to use medical disciplines in the first instance, but to provide a model which is multi-disciplinary in its final application. It is important that the curriculum design, no matter to what discipline it refers, incorporates four principles of curriculum development (Stein 1981):

- to identify the educational need for a specific audience;
- to clearly state the aims and objectives of the program;
- to use methods which involve active participation, and
- to incorporate evaluation which provides feedback.

Management

The management team developed four objectives for the design phase of the project:

1. To use the dialogue and agreed position papers developed between RDAA and the Royal Colleges as a starting point for discussion;
2. To develop and maintain a project infrastructure which would utilise expert consultancies, under the direction of a Project Advisory Committee;
3. To develop a process of curriculum design based upon wide consultation: a true collegial and consultative model, and
4. To facilitate in the longer term, a much fuller understanding of the education and training needs of rural general practitioners.

Communication

A key feature of the management role in the project was the creation and maintenance of productive lines of communication and liaison. The curriculum documents represent the product of considerable negotiation, and the establishment of an efficient working framework was one of the first essentials of the management role.

Diagram 1: Lines of Communication

The complex task of the preparation of briefings, orientation tours, weekend meetings and innumerable late night teleconferences, was made easier and more worthwhile by the unprecedented cooperation and goodwill among all contributors. (Appendix 1).

Content

Each curriculum has a set of clearly stated aims and objectives which, for the sake of consistency, are similar across the three curricula.

Aims

Each curriculum is aimed at preparing selected trainees in the RACGP Rural Training Program for work in rural general practice in that particular discipline. In particular, the aims of each are to:

1. Provide experience in the management of common conditions including associated clinical skills, common practices in management and, in the case of surgery and anaesthetics the early management of severe trauma;
2. To develop understanding of the importance of decision making about local management, consultation and referral for common conditions;
3. To enable trainees to recognise their strengths and limitations and to consider the availability of local and transfer resources in making decisions about management;
4. To develop a commitment to rural general practice and to the provision of medical services for rural Australians, and
5. To foster self-directed learning and commitment to continuing education in the management of common conditions in rural general practice.

Objectives

Each curriculum clearly states a set of objectives which again are similar across the three curricula. At the end of each program trainees will be able to:

1. Demonstrate knowledge, experience and appropriate skills in the management of common conditions and, in the case of surgery and anaesthetics, the early management of severe trauma;
2. Make decisions about the management of common conditions including decisions about local conservative or operative management, local management with consultation or referral and transfer;
3. Indicate that they recognise the importance of considering their own strengths and limitations and the availability of local resources for management, consultation and transfer in the management of common surgical conditions;
4. Demonstrate knowledge of relevant anatomy, physiology, pathology and current practice in the management of common conditions;
5. Perform appropriate common procedures under minimal or distant supervision;
6. Demonstrate knowledge and skills in the management of common post-operative complications;
7. Summarise important issues and indicate their own attitudes and perspectives on the provision of medical services in rural Australia, especially the management of common conditions in each of these disciplines, and

Selection

In each case, trainees in the program will be selected on the basis of certain criteria, including:

1. Completion of two years of the Rural Training Program;
2. In the case of surgery and anaesthetics, successful completion of the Early Management of Severe Trauma (EMST) Course of the RACS;
3. Demonstration of relevant knowledge, skills and experience approximately equivalent to those of a Resident Medical Officer (RMO) in a hospital unit in that discipline, and
4. Demonstration of a commitment to rural general practice, including experience of at least one term in rural general practice.

Program

The focus of the program for each curriculum includes the principles of assessment, triage and management of common conditions. Trainees will learn to manage problems in rural general practice according to the following management process:

1. **Initial Assessment:** This includes history and physical examination, arranging and interpreting appropriate investigations and reaching a differential diagnosis.
2. **Determining and Implementing a Management Plan:** This includes deciding whether management should be local, local with consultation or involve referral and transfer; arranging for a referral and transfer if appropriate; implementing local management or local management with consultation - arranging and interpreting further investigations, undertaking conservative measures as appropriate.
3. **Re-assessment**
4. **Post-operative Care and Follow-up:** This includes undertaking immediate post-operative care for locally managed patients including perception, assessment and management of surgical and other complications with consultant advice if necessary; undertaking long-term follow-up for local or transfer patients; and undertaking follow-up of conservatively managed patients.

This management process provides the underlying framework for the presentation of the specific content of each curriculum, the details of which can be read in the documentation. The emphasis is on reflective thinking and considered decision making processes in the management of common conditions, with due consideration of relevant knowledge of anatomy, physiology, pathology and current practice. Each step is considered in relation to the total process. The gaining of skills and experience in operative measures should take place within this management framework with particular consideration of the:

1. Nature of the disease or presenting condition;
2. Nature of the patient;
3. Availability of resources for local, emergency or definitive management conditions;
4. Availability and limitations of local resources for consultation, referral and transfer, and
5. Expertise and limitations of the trainee.

**Implementation**

The program for each curriculum will be delivered over twelve months which may be compiled in a variety of ways and not necessarily restricted to a single hospital post during a calendar year. In general terms, most accredited posts will comprise nine months in appropriate hospital attachments and three months in a rural general practice with a special interest in that discipline. For example, a twelve month post in obstetrics may comprise nine months training in an accredited post in a hospital with an appropriate caseload and casemix for this training and three months in a rural general practice with a significant obstetric caseload and a GP Obstetrician acting as the trainees' supervisor. In this way, trainees will be supervised by both general practitioner and specialist mentors during their training so that the appropriate emphasis and context apply to the period of training.

**Assessment**

Each curriculum uses a combination of formative and summative assessment, the purpose of which is supervisory as well as judgemental. The assessment will be conducted primarily by the general practitioner and surgical supervisors in Rural Training Units who would participate in regular discussions with the trainees using clinical diaries containing notes of the trainees' work during both hospital and general practice attachments. These discussions should take place on a weekly basis where possible, so that continuous feedback is provided to the trainee on their progress throughout the program of training.

Summative assessment will be conducted jointly by both supervisors at the end of each attachment where the grading will be either 'satisfactory' or 'unsatisfactory'. In surgery, trainees will submit five written case studies based on actual cases recorded in clinical diaries. Two of these will be submitted to a panel of outside moderators for assessment. These external moderators will be nominated jointly by the Faculty of Rural Medicine and the specialist college involved and will act as a mechanism of quality assurance to encourage consistency in standards of training across Rural Training Units around the country.

**Evaluation**

Each curriculum will be subjected to continuous internal and external evaluation so that it evolves over time to respond to changes in clinical practice over the years. This process of evaluation has already commenced.
Future Developments

The Faculty of Rural Medicine expects to develop curricula for advanced training for rural general practice in a variety of disciplines using similar methodology over the next few years. Surgery, Anaesthetics and Obstetrics were chosen initially because it is these three disciplines that rural doctors most frequently and consistently nominate as areas of greatest need for training. Other areas similarly nominated which are likely to receive priority are Emergency Medicine, Psychiatry, Aboriginal Health and Paediatrics. Given the success of the model we have presented today, there is no reason why, given adequate funding support, similar curricula could not be developed over the next few years.

Similarly, there is no reason why the goodwill and spirit of cooperation generated by and evident in this project could not also be developed by similar projects in other disciplines.

Summary

Today we have presented an outline of a successful experiment in the development of advanced training curricula in three disciplines for rural general practice. That such a task could be undertaken and successfully completed in six months after many years of minimal or zero progress, is testimony to the energy, commitment, tenacity and professionalism of all those involved, from both the ranks of the Faculty of Rural Medicine and the three specialist colleges involved. Although demanding and at times exhausting, the project gave particular satisfaction to us as project managers, dealing with both general practitioner and specialist doctors of the highest calibre and commitment to making the project work. Special mention must also be made of the Curriculum Design and Evaluation Consultants who worked hard and long in tandem with us all to complete the project within an 'impossible' time-frame. Our sincere thanks go to all involved in the development of these three curricula, which we believe to be the first of their type in the world.

References

APPENDIX ONE

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