

**THE ROYAL AUSTRALIAN COLLEGE  
OF  
GENERAL PRACTITIONERS  
TRAINING PROGRAM**

**EMERGENCY MEDICINE**

***ADVANCED RURAL SKILLS  
CURRICULUM STATEMENT***

***1997***

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## **TITLE      Emergency Medicine**

### **RATIONALE**

This advanced rural skills curriculum statement in Emergency Medicine has been developed in response to the identified training needs of existing or potential rural general practitioners.

In rural and remote areas of Australia the demands for advanced emergency care skills in general practice are significantly higher, due to the reduced numbers of GPs, the reduced access to specialist services, and the logistical and geographical difficulties of evacuating the seriously ill. There is also a higher incidence of farming, mining, industrial and motor vehicle accidents and greater access to firearms in isolated areas.

The problem of recruiting GPs to rural areas of Australia has been well documented.<sup>1</sup> Insufficient training and ongoing educational opportunities in rural and remote areas have been identified as a major issue. It is envisaged that with specific training in emergency medicine through this program, GPs will be more competent and confident to cope with working in isolated rural areas. The longterm outcome will be equity of access to skilled practitioners in emergency care and better health care for rural Australians.

Developing skills in emergency medicine is seen as an essential element of the Training Program. Some rural GPs will require advanced skills in emergency medicine, therefore Rural Training Stream Registrars will have the option of completing this curriculum in advanced rural skills for Emergency Medicine.

### **LEARNING OBJECTIVES**

Rural practice is significantly different from urban practice. Therefore these learning objectives seek to account for the context of the work environment of the RTS Registrar who may be working in a large rural town with tertiary support or a one-doctor community in a geographically isolated area. These objectives should therefore be seen as desirable requirements which all GPs require to deal effectively with emergency medicine in rural general practice.

#### ***Communication Skills and the Patient-Doctor Relationship***

The RTS Registrar will be able to

- work effectively as part of a multidisciplinary rural team in the emergency and intensive management of seriously ill patients
- develop good listening skills and communicate empathically with patients, relatives and others in an emergency situation
- develop skills and knowledge in remote radio and telephone consultation
- recognise stress and grief symptoms in staff, patients, their relatives and friends, and provide empathic and culturally appropriate support and follow-up

<sup>1</sup> Gadiel D. Ridout. *The Specialist Medical Workforce and Special Service provision in Rural Areas*. Strategic Human Capital Management, Canberra. 1994

- clearly outline the indicators for, and the process of, critical incident stress debriefing and referral procedures
- provide health promotion, prevention and educational sessions to rural health staff and rural people about safe working practices and relevant emergency procedures
- demonstrate acceptable standards of documentation and report writing skills necessary in emergency care of patients.

### ***Applied Professional Knowledge and Skills***

The RTS Registrar will be able to

- develop the clinical skills required to manage competently emergency care of patients in rural and remote practice
- demonstrate confidence to make decisions and accept the outcomes of those decisions whilst working within their own limitations
- understand and utilise the extended role of other health practitioners in rural areas
- understand and effectively utilise emergency medical systems
- take X-rays use teleradiology facilities where necessary
- understand the principles of blood transfusion and cross-matching
- clearly outline the indicators of toxicity from environmental, chemical, animal and other sources
- clearly outline the principles of infection control
- successfully undertake the accredited Early Management of Severe Trauma (EMST) course.

### ***Population Health and the Context of General Practice***

The RTS Registrar will be able to

- understand the limitations of resources in rural general practice and manage emergency care, at times through improvisation
- demonstrate an understanding of the social and cultural influences on health care and the differing values and priorities of people in rural and remote areas
- demonstrate an awareness of how social and cultural issues can impact upon the decision of the rural GP to treat a patient locally or refer on
- understand the environmental conditions and disease patterns for rural communities

- understand and utilise relevant protocols and guidelines for emergency care, and where necessary participate in development of these guidelines.

### ***Professional and Ethical Role***

The RTS Registrar will be able to

- outline the protocols for media involvement in emergency and disaster situations
- demonstrate an understanding of the particular need for, and difficulties in, maintaining confidentiality in small communities
- develop a commitment to self-directed learning sufficient to provide high quality emergency care in rural areas
- develop the appropriate skills for self-care (debriefing) and self-reliance
- maintain ethical responsibilities to patients and colleagues.

### ***Organisational and Legal Dimensions***

The RTS Registrar will be able to

- clearly outline the consent procedures in emergency care
- outline his/her legal responsibilities for the notification of disease, death, birth, autopsy etc
- identify and manage environmental emergencies and outline the associated public health issues and reporting responsibilities
- clearly outline principles of triage and disaster management
- clearly outline the local transfer and evacuation processes from the rural community
- understand the principles of retrieval medicine
- establish and utilise a comprehensive professional emergency referral network.

## CONTENT

The core subject Acute and Traumatic Conditions deals with the initial development of diagnostic skills. *The following content list therefore assumes that diagnostic skills are developed, and focuses on the more complicated management of conditions in the rural context.*

Emergency Management of	Clinical / Other Skills
<p><b>Airway / breathing emergencies</b></p> <ul style="list-style-type: none"> <li>• airway trauma</li> <li>• chest trauma</li> <li>• pulmonary oedema</li> <li>• acute severe asthma</li> <li>• pneumothorax</li> <li>• airway burns</li> <li>• ventilated patients</li> </ul>	<ul style="list-style-type: none"> <li>⇒ rapid sequence induction for intubation</li> <li>⇒ needle cricothyroidotomy</li> <li>⇒ jet insufflation</li> <li>⇒ emergency intubation</li> <li>⇒ capnometry</li> <li>⇒ nasotracheal intubation</li> <li>⇒ laryngeal mask airway use</li> <li>⇒ mechanical ventilation</li> <li>⇒ bag mask ventilation</li> <li>⇒ use of CPAP</li> </ul>
<p><b>Circulatory Emergencies</b></p> <ul style="list-style-type: none"> <li>• dysrhythmias</li> <li>• blood products in resuscitation</li> <li>• cardiac tamponade</li> <li>• heart failure</li> <li>• shock</li> </ul>	<ul style="list-style-type: none"> <li>⇒ administration of thrombolytic therapy</li> <li>⇒ administration of inotropes</li> <li>⇒ needle pericardiocentesis</li> <li>⇒ venous cutdown</li> <li>⇒ cubital fossa long-line insertion</li> <li>⇒ central line placement</li> <li>⇒ external pacing / defibrillation</li> <li>⇒ direct counter current shock</li> </ul>
<p><b>Toxic emergencies</b></p> <ul style="list-style-type: none"> <li>• drug overdose</li> <li>• envenomation</li> <li>• complex decontamination techniques</li> </ul>	<ul style="list-style-type: none"> <li>⇒ gastric lavage</li> <li>⇒ whole bowel irrigation</li> <li>⇒ antivenom</li> </ul>
<p><b>Metabolic / endocrine</b></p> <ul style="list-style-type: none"> <li>• Addisonian crisis</li> <li>• diabetic emergencies</li> <li>• hypercalcaemia</li> <li>• hypo / hypernatraemia</li> <li>• hyperosmolar coma</li> <li>• hyper / hypokalaemia</li> </ul>	<ul style="list-style-type: none"> <li>⇒ insulin infusion</li> <li>⇒ treatment of hyper / Hypocalcaemia</li> <li>⇒ coma management</li> </ul>

Emergency management of	Clinical / Other Skills
<p><b>Paediatric</b></p> <ul style="list-style-type: none"> <li>• severe dehydration</li> <li>• neonatal asphyxia</li> <li>• trauma</li> <li>• epiglottitis</li> </ul> <p><b>Orthopaedic emergencies</b></p> <ul style="list-style-type: none"> <li>• colles fracture</li> <li>• hip, elbow, ankle</li> <li>• spinal injuries</li> <li>• head injuries</li> </ul> <p><b>Environmental Emergencies</b></p> <ul style="list-style-type: none"> <li>• barotrauma</li> <li>• electrocution</li> <li>• hyper / hypothermia</li> <li>• near drowning</li> </ul> <p><b>Emergency Anaesthesia</b></p> <ul style="list-style-type: none"> <li>• regional anaesthesia</li> <li>• IV sedation</li> </ul> <p><b>Ophthalmology</b></p> <ul style="list-style-type: none"> <li>• glaucoma</li> <li>• eye trauma</li> </ul> <p><b>Psychiatry</b></p> <ul style="list-style-type: none"> <li>• acute psychosis</li> <li>• violent patients</li> </ul> <p><b>Ear Nose and Throat</b></p> <ul style="list-style-type: none"> <li>• dental emergencies</li> <li>• epistaxis</li> <li>• foreign bodies</li> <li>• vertigo</li> </ul> <p><b>Wound</b></p> <ul style="list-style-type: none"> <li>• burns</li> <li>• anaesthesia</li> </ul>	<ul style="list-style-type: none"> <li>⇒ intraosseous infusion</li> <li>⇒ paediatric advanced life support</li> <li>⇒ neonatal resuscitation and stabilisation</li> </ul> <ul style="list-style-type: none"> <li>⇒ fracture reduction - colles</li> <li>⇒ reduction of dislocations</li> <li>⇒ spinal immobilisation</li> </ul> <ul style="list-style-type: none"> <li>⇒ body warming techniques</li> <li>⇒ body cooling techniques</li> <li>⇒ hyperbaric oxygen</li> </ul> <ul style="list-style-type: none"> <li>⇒ Biers block</li> <li>⇒ femoral nerve block</li> <li>⇒ other regional nerve blocks</li> </ul> <ul style="list-style-type: none"> <li>⇒ use of slit lamp</li> <li>⇒ tonometry</li> </ul> <ul style="list-style-type: none"> <li>⇒ scheduling procedures</li> <li>⇒ use of physical and chemical restraint</li> <li>⇒ techniques for handling violent / aggressive patients</li> </ul> <ul style="list-style-type: none"> <li>⇒ insertion of nasal pack</li> <li>⇒ removal of nasal / aural foreign bodies</li> </ul> <ul style="list-style-type: none"> <li>⇒ wound management and repair</li> <li>⇒ escharotomy</li> </ul>

Emergency management of	Clinical / Other Skills
<p><b>Obstetric</b></p> <ul style="list-style-type: none"> <li>• obstetric emergencies - theory</li> <li>• ante / post partum haemorrhage</li> <li>• pre eclampsia</li> </ul> <p><b>Rural Communities</b></p> <ul style="list-style-type: none"> <li>• self health</li> <li>• critical incident stress debriefing</li> <li>• stress management</li> <li>• principles of blood transfusion</li> <li>• rural resources / referral agencies</li> <li>• multidisciplinary teamwork</li> <li>• evacuation and transport</li> <li>• dealing with the media</li> <li>• confidentiality</li> <li>• telephone / radio consultation</li> <li>• disaster management</li> <li>• tele-radiology (where appropriate)</li> <li>• radiography (where appropriate)</li> </ul>	<p>⇒ emergency delivery</p> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Early Management of Severe Trauma Course</li> <li>• adult learning / presentation skills</li> <li>• preventive resources eg. farm safe</li> <li>• legal responsibilities for reporting</li> <li>• autopsy guidelines</li> <li>• report writing</li> <li>• infection control</li> <li>• Early Life Support Course</li> </ul>

## TEACHING / SUPERVISION APPROACHES

Most of the learning activities are experiential and could take place in a teaching hospital emergency department, accredited rural hospitals, retrieval services, or a mixture of these.

Learning is also self-directed under the supervision of the rural specialist and GP Supervisors. Teaching approaches should recognise the needs of Registrars as adult learners. A combination of teaching methods should be used, as no single method of teaching will suit every occasion. Teaching methods should be interactive and challenge the learner to choose, reflect upon, and evaluate ideas.

Interactive teaching methodologies which could be used include

- group discussion / activities / case studies / presentations
- role play / simulated situations - these may reflect a situation in which the Registrars have previously found themselves and felt unsure about how to manage
- audiovisual presentation - ie. video, films
- research projects
- listening / observation
- regular meetings with supervisors
- access to CME workshops
- presentation of educational session to other staff or community groups
- journal articles

- participation in aeromedical / road evacuation of critically ill patients and the ambulance services.

## PREREQUISITES / ASSUMED PRIOR EXPERIENCE

The Registrar should satisfy the following criteria

- in accordance with the Training Program Operating Procedures, be eligible to undertake an Advanced Rural Skills Post ie.
  - ⇒ be accepted into the Rural Training stream
  - ⇒ have completed a minimum of six months in rural general practice term.
- have successfully completed the Core Training in Acute and Traumatic Conditions
- have completed a minimum of three months in an RACGP accredited anaesthetic hospital rotation
- have successfully completed a minimum of three months as a senior medical officer rotation in a RACGP accredited rural emergency medicine department. Prior time spent in appropriate posts will be recognised.

## FEEDBACK AND ASSESSMENT METHODS

Assessment should be based in the context of the work environment of the Registrar ie. if the Registrar is working in a rural farming community, a mining town or cross cultural context, this should be reflected in the set assessment.

*Both formal and informal methods of assessment are used.*

- *Feedback.* The designated rural General Practitioner and specialist supervisors take responsibility for providing direct feedback to the Registrars on their progress and performance in the post. Feedback will occur during regular weekly discussions, and include diary content.
- *Log Book.* A Log Book of interesting cases and procedures is to be kept throughout the duration of the term and is to be viewed by supervisors throughout the post and by the examiners at cross table vivas.
- *Successful completion of the EMST Course or ELS Course (Emergency Life Support Course due to be launched in 1997). It is desirable for either of these courses to be undertaken either prior to or in the earliest part of the term as possible.*

*More information on the required assessment criteria is outlined in the Handbook of the Training Program's Graduate Diploma in Rural General Practice and includes:*

*Case Histories.* Two written case studies (of approx 1,200 words) can be presented throughout the term. These can be in written format, as case commentaries or as grande round presentations. *Two cross table vivas* of one hour duration conducted with a Fellow of Australian College of Emergency Medicine/ ICU / Anaesthetics and a GP Supervisor who has a significant case load in these areas.

## EVALUATION METHODS

Advanced rural skills posts are evaluated through

- continuous monitoring by the RACGP Training Program and RHTU
- Registrar feedback form. The form is designed to obtain ratings on the extent to which the Advanced Rural Skills Post contributed to achievement of the overall program objectives and the specific goals of the ARSP.

## TIME AND LEARNING RESOURCES

### *Duration*

The duration of this advanced rural skills post is for six months.

It includes three months in a rurally accredited emergency department with sufficient caseload to meet the objectives, and three months in a rurally accredited intensive care unit.

### *Staffing*

**Rural GP Supervisor and Emergency Medicine Specialist** whose roles are to

- assist in the development, implementation and evaluation of learning materials
- participate in workshops in person or by teleconference
- contribute to formative assessment of the Registrar by providing learning opportunities, monitoring progress, and providing regular feedback
- facilitate access to learning opportunities for procedural skills development
- act as role model, mentor and support person.

**Medical Educator** from the RHTU whose role is to

- coordinate the rural emergency medicine workshops
- ensure learning package availability for Registrars
- assist in access to learning opportunities for procedural skills and other abilities
- contribute to formative assessment of Registrar using clinical skills Log Book to monitor progress
- participate actively in curriculum evaluation process.

**Other RHTU staff eg. Librarian and Administrative Support Officers**

- provide support as necessary in the areas of distance learning, library resources, and administrative support for educational activities.

### *Training Resources*

The RTS Registrar will require access to

- Workshops on specific topics
- Learning packages

- Interactive workshops via teleconferencing or video conferencing, satellite telecasts, telemedicine
- PC/CD Rom
- Library with E-Mail facility / Internet
- Clinical skills Log Book
- Assessment protocol
- Evaluation information
- Clinical diary

### ***Recommended Texts And References***

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