



# Advanced Specialised Training Curriculum

# Remote Medicine



Australian College of  
Rural and Remote Medicine

## Acknowledgements

The Australian College of Rural and Remote Medicine (ACRRM) gratefully acknowledges the contributions of the following people who gave their time and expertise in remote medicine to develop this curriculum.

- Dr Jeff Ayton – Chief Medical Officer, Polar Medicine Unit, Australian Antarctic Division, Hobart
- Dr Louise Baker – Medical Educator, Remote Vocational Training Scheme (RVTS), Cowra
- Assoc Prof Elizabeth Chalmers – Centre for Remote Health, Flinders University, Katherine
- Dr Pat Giddings – Director, RVTS, Wodonga
- Dr Martin Kelly – RVTS Registrar, Alice Springs
- Dr Cath Love – Supervisor, RVTS, Alice Springs
- Assoc Prof Steve Margolis – Royal Flying Doctor Service, Cairns
- Lieutenant Colonel Vicki Ross – Joint Health Support Agency, Department of Defence, Canberra
- Prof John Wakerman – the Centre for Remote Health, Flinders University
- Assoc Prof Janie Dade Smith – Director and Curriculum Consultant, RhED Consulting.

### Contact details

Australian College of Rural and Remote Medicine  
GPO Box 2507  
Brisbane QLD 4001

Telephone 07 3105 8200  
training@acrrm.org.au

Fax 07 3105 8299

Email

Website [www.acrrm.org.au](http://www.acrrm.org.au)

### Copyright

© Australian College of Rural and Remote Medicine 2010. All rights reserved. No part of this document may be reproduced by any means or in any form without express permission in writing from the Australian College of Rural and Remote Medicine.

Version: 01/11

# Table of Contents

Acknowledgements .....	1
1. Background .....	4
2. Purpose and Requirements .....	4
2.1 Purpose.....	4
2.2 Target group.....	4
2.3 Duration.....	4
2.4 Potential posts.....	5
2.5 Prerequisites.....	5
3. Rationale.....	5
3.1 Remote Australia.....	5
3.2 Remote populations.....	6
3.3 Access to medical services.....	6
3.4 Defining remote medical practice.....	7
3.5 Need for appropriate training.....	8
4. Learning Outcomes.....	9
4.1 Domain 1. Core clinical knowledge and skills.....	9
4.1.1 Clinical judgment.....	9
4.1.2 Tele-health.....	9
4.1.3 Investigations.....	9
4.1.4 Communication skills.....	9
4.1.5 Motivational counselling.....	9
4.1.6 Mental health.....	10
4.2 Domain 2. Extended clinical practice.....	10
4.2.1 Cross-disciplinary extended clinical role.....	10
4.2.2 Secondary and tertiary care.....	10
4.2.3 Disaster planning.....	10
4.2.4 Chronic disease management.....	10
4.3 Domain 3. Emergency care.....	111
4.3.1 Emergency skills.....	111
4.3.2 Retrieval and medical evacuation.....	11
4.3.3 Blood bank.....	11
4.3.4 Improvisation.....	11
4.3.5 Referral.....	11
4.4 Domain 4. Population health.....	11
4.4.1 Health status.....	11
4.4.2 Epidemiology.....	12
4.4.3 Public Health.....	12
4.4.4 Population health approach.....	12
4.4.5 Occupational and personal health and safety.....	12
4.4.6 Transport.....	12

4.5 Domain 5. Aboriginal and Torres Strait Islander health.....	12
4.5.1 Cultural sensitivity.....	12
4.5.2 Cultural communication skills.....	12
4.5.3 Social determinants of health.....	13
4.5.4 Mental health.....	13
4.6 Domain 6. Professional, legal and ethical practice.....	13
4.6.1 Teamwork.....	13
4.6.2 Leadership.....	13
4.6.3 Best practice.....	13
4.6.4 Legislation.....	13
4.6.5 Self care.....	14
4.6.6 Ethical practice.....	14
4.6.7 Impaired practitioners.....	14
4.6.8 Advocacy.....	14
4.6.9 Management skills.....	14
4.7 Domain 7. Rural and remote context.....	15
4.7.1 Nature of remote communities.....	15
5. Teaching and Learning Approaches .....	15
6. Supervision and Support.....	15
7. Assessment.....	16
7.1 Remote medicine supervisor feedback reports.....	16
7.2 Remote medicine research or community health project.....	17
8. Potential Articulation .....	17
9. Core Resources .....	18
10. Evaluation .....	19
References.....	19

# 1. Background

Completing a minimum 12 months full time or equivalent part time of Advanced Specialised Training is an essential component of training towards Fellowship of ACRRM. Registrars may choose from one of ten advanced training areas that reflect rural and remote clinical practice needs. *Remote medicine* is one of these priority areas due to the increasing number of doctors working in remote sites and communities, and the special needs of populations living in extreme climatic or geographic situations.

This Advanced Specialised Training Curriculum outlines the expected outcomes and assessment requirements for registrars undertaking an Advanced Specialised Training post in remote medicine. It builds on the remote medicine aspects of the ACRRM Primary Curriculum. The basic knowledge and skills described in the Primary Curriculum are therefore assumed as prior or concurrent learning and are not re-stated. This advanced curriculum focuses on the additional knowledge and skills required for advanced practice in remote medicine.

## 2. Purpose and Requirements

### 2.1 Purpose

The aim of this curriculum is to provide remote populations with appropriately trained, safe and competent general practitioners who have an interest in sustaining a working life in these environments.

### 2.2 Target group

This curriculum targets ACRRM enrolled registrars who are undertaking their Advanced Specialised Training year in remote medicine. Such registrars are generally employed by an organisation – government or non-government – rather than being self-employed or working in solo practice. They include, but are not limited to:

- registrars already enrolled in the Remote Vocational Training Scheme (RVTS)
- registrars working in discrete remote Indigenous communities
- aero-medical registrars, such as those in the Royal Flying Doctor Service (RFDS)
- Australian Defence Force registrars
- Antarctic and expedition medicine registrars
- registrars working in isolated or remote communities
- registrars working for humanitarian organisations such as Médecins Sans Frontières (MSF), Red Cross, or refugee organisations.

### 2.3 Duration

The minimum duration required for Advanced Specialised Training in remote medicine is 12 months full time, or the equivalent training accumulated part time. The training program will take into account other professional, personal and family needs and will offer individuals the flexibility to undertake part-time training. It will also allow flexibility for participants to undertake their Advanced Specialised Training in Rural Medicine in two or more blocks, subject to the written approval of the ACRRM Censor.

## 2.4 Potential posts

Advanced Specialised Training in remote medicine must be undertaken in training posts accredited by ACRRM. To achieve curriculum outcomes, it may be necessary for a registrar to split their training between two or more posts.

The range of posts acceptable to ACRRM includes but is not limited to:

- discrete remote Indigenous communities
- remote Aboriginal Medical Services (AMSs)
- aero-medical and retrieval services (e.g. Royal Flying Doctor Service)
- remote primary health care services
- Australian Defence Force remote medical posts – navy, air force, or army – in Australia and overseas
- Antarctic and expedition medicine posts
- isolated posts – solo towns, ski resorts, islands, tourist resorts, mine sites, jails
- refugee posts in Australia and overseas
- tele-health posts that service remote populations.

## 2.5 Prerequisites

Registrars undertaking Advanced Specialised Training in remote medicine must be skilled independent practitioners with proven basic skills and some rural and remote experience prior to commencing this post. It is strongly advised that registrars undertaking a remote medicine AST do so in the fourth and final year of ACRRM Fellowship training or at least in the fifth post graduate year.

Prior to undertaking Advanced Specialised Training in remote medicine, registrars must meet the following criteria:

- satisfactory completion of the Core Clinical Training component of ACRRM Fellowship Training,
- satisfactory completion of the emergency courses required by ACRRM's 'completion of training' criteria
- satisfactory completion of the ACRRM 'Introduction to Population Health' online learning module at [www.rrmeo.com](http://www.rrmeo.com) (pre- or co-requisite).

It is also strongly advised for registrars to achieve competency in all or most of the procedural skills outlined in the ACRRM Primary Skills Logbook prior to undertaking a remote medicine post.

# 3. Rationale

The geographic, demographic, social and cultural nature of remote Australia and its inhabitants bring a range of unique challenges to the practice of remote medicine.

## 3.1 Remote Australia

This curriculum statement covers the geographical areas classified by the Australian Bureau of Statistics as 'remote' and 'very remote'.<sup>1</sup> These areas combined make up over three-quarters of the Australian landmass. They are enormously diverse in climate, character, size and latitude – including vast deserts, alpine slopes, tropical forests and savannahs, tropical and temperate islands and polar ice fields.<sup>2</sup> In addition to geographic isolation, these areas are characterised by cultural diversity,

extreme climatic conditions, and disadvantaged socioeconomic, health and resource status.<sup>2</sup>

### **3.2 Remote populations**

Remote populations include Indigenous Australians, multi-generation primary producers, mine workers, professional people (short- and long-term), seasonal and tourism workers and those who work on ships, oil rigs, islands and Antarctica. In 2006, remote populations accounted for approximately 2.3 per cent of the total Australian population.<sup>1</sup>

Aboriginal and Torres Strait Islander Australians make up approximately 16 percent of the total remote population and 48 percent of the very remote population.<sup>1</sup> Indigenous Australians have the worst health status in the world on some indicators: diabetes, renal disease, infectious diseases (especially gastroenteritis, otitis media and pneumonia in children) and circulatory diseases.<sup>3-6</sup> Factors such as distance, isolation, lower incomes, poor educational opportunities, meagre housing, minority population status, and lack of services all exacerbate health inequality.<sup>7</sup>

The remainder of the populations living in remote communities share a number of common features. They tend to be predominantly male, usually consisting of young, fit, healthy, transient workers, who often take risks, work with machinery and present late when suffering from non-acute illness. Work-related accidents and serious infectious diseases can be common.

One unique remote transient population is the group of 14,000 scientists, tourists and adventure seekers from eighteen nations who visit Antarctica each year by ship, yacht or aeroplane.<sup>8</sup> The most common medical conditions are generally trauma (which can be serious and require evacuation) and insomnia (which is endemic during periods of 24-hour sunshine).<sup>8</sup>

Other remote populations include Australian Defence Forces (ADF) personnel and the populations served by them. They can include people who require treatment for trauma-related conditions caused by war, natural disaster, or terrorism, or need essentials such as food, water and shelter. While humanitarian assistance was traditionally secondary to the ADF's military missions,<sup>9</sup> the past decade has seen an increasing number of primarily humanitarian missions. Therefore, ADF doctors have been required to diagnose and treat a far wider range of medical conditions, especially in the areas of women's and children's health and tropical medicine.<sup>9, 10</sup>

### **3.3 Access to medical services**

Remote areas are characterised by limited access to all services, including medical services.<sup>11</sup> The medical services available in these populations are often provided by health professionals other than doctors. Therefore, a number of unique medical services have emerged, including:

- tele-health
- fly-in fly-out medical, emergency, evacuation and primary care services
- Indigenous primary health care services for discrete, very remote Indigenous communities, usually provided by remote area nurses and Indigenous health workers (with medical support via the telephone)
- Aboriginal Medical Services, which are community controlled and provide primary health care services to largely Indigenous populations

- primary care services provided by medical practitioners based in remote, predominantly non-indigenous communities, on islands, ships, expeditions, or in the ADF.<sup>12</sup>

### 3.4 Defining remote medical practice

Several definitions have been developed to describe 'remote health'<sup>13</sup> and 'remote practice'.<sup>2</sup> Wakerman<sup>13</sup> offers the following working definition of 'remote health':

Remote health is an emerging discipline with distinct sociological, historical and practice characteristics. Its practice in Australia is characterised by geographical, professional and, often, social isolation of practitioners; a strong multidisciplinary approach; overlapping and changing roles of team members; a relatively high degree of GP substitution; and practitioners requiring public health, emergency and extended clinical skills. These skills and remote health systems need to be suited to working in a cross-cultural context; serving small dispersed and often highly mobile populations; serving populations with relatively high health needs; a physical environment of climatic extremes; and communications environments of rapid technological change.

The following key features differentiate remote medicine from urban or rural general practice:

1. *Employed* – Remote doctors are usually employed by government and non-government organisations rather than in a private practice. They usually share their workloads with other doctors from that organisation. They are often highly mobile and have a high community profile.
2. *Isolated* – Remote medical practice is isolated, with limited sophistication of medical care and access to peers. It often occurs in extreme conditions – geographically, climatically, professionally, personally, environmentally, politically and culturally. Doctors may also fly-in and fly-out for a particular episode of patient care.
3. *Tele-health* – Remote doctors are often required to provide their patients with diagnostic and management advice over the telephone, radio, or other electronic device.
4. *Increased clinical acumen* – Remote doctors require a higher level of clinical acumen to diagnose and manage illness where there is often an absence of pathology, radiology and the other usual clinical diagnostic support and specialist services, so that ultimate responsibility lies with the remote doctor.
5. *Extended practice* – Remote medical practice extends across primary, secondary and tertiary levels of care and requires novel methods of practice, different treatment protocols, and innovative implementation approaches. Remote doctors can be required to undertake a range of advanced procedural practices which would usually be reserved for specialists in urban or rural contexts (e.g. obstetrics, surgery, pathology, dentistry). They may also be required to perform tasks usually undertaken by other healthcare workers, such as paramedics, vets, government medical officers, nurse practitioners, ambulance officers and community aid workers.
6. *Cross-cultural* – Remote doctors often work with marginalised populations with poorer health status, different worldviews and different cultural understandings of health.

7. *Strongly Multidisciplinary* – Remote medicine is strongly multidisciplinary, with each health professional performing more advanced and extended roles than those normally found in urban or rural practice: physician/medical assistant, nurse practitioner and Indigenous health / refugee worker. These health professionals must work in teams to be effective, and their role boundaries are often blurred.
8. *Public health and security* – Remote medicine occurs in environments where it is critical to have a strong understanding of public health and an ability to use a population health approach. The doctor will often take on a leadership role in this regard. Also, it can be unavoidable in remote communities that the doctor will develop social relationships with patients, or may be required to provide medical care for friends, family, staff and colleagues. Added to this, staff turnover is usually very high. For these reasons, patient information/records security and patient confidentiality issues are paramount.

### **3.5 Need for appropriate training**

There is a considerable gap between undergraduate education and the advanced and extended role of all health professionals in remote areas.<sup>14,15</sup> Remote doctors require a broader and deeper range of knowledge and skills than their urban and rural counterparts. This is due to a combination of factors including poorer patient health status, poorer patient educational preparation, the diverse range of service providers and the need to use a multi-professional primary healthcare approach. Advanced skills are required in areas such as public health, infectious disease, environmental health, emergency, retrieval and disaster medicine and cultural awareness.

The *National Aboriginal Health Strategy* in 1989 and the *Royal Commission into Aboriginal Deaths in Custody* in 1991 highlighted the educational needs of doctors, nurses and other health professionals in areas where Aboriginal and Torres Strait Islander people are concentrated. In particular they emphasised the need for education in cultural awareness, primary health care, and the health conditions of Indigenous people.<sup>16</sup>

The need for appropriate training was acknowledged by the Commonwealth Department of Health and Ageing in 1999, when funding was provided for the *Pilot Remote Vocational Training Scheme* – a joint initiative of the Australian College of Rural and Remote Medicine and the Royal Australian College of General Practitioners. The RVTS, as it is now known, continues to provide remotely located registrars throughout Australia with a supported vocational training program via distance education and remote supervision.

## 4. Learning Outcomes

The domains of rural and remote medical practice have been defined by ACRRM and provide a framework for organising the core learning outcomes and assessment requirements for this curriculum. The domains are:

1. Core clinical knowledge and skills
2. Extended clinical practice
3. Emergency care
4. Population health
5. Aboriginal and Torres Strait Islander health
6. Professional, legal and ethical practice
7. Rural and remote context.

### 4.1 Domain 1. Core clinical knowledge and skills

#### 4.1.1 Clinical judgment

The registrar will demonstrate clinical acumen in diagnosing and managing patient presentations, especially in situations where diagnostic and medical resources are limited.

#### 4.1.2 Tele-health

The registrar will demonstrate, in the following ways, the ability to diagnose and manage a remotely located patient over the telephone or radio:

- assessing the capabilities of the person with the patient and ascertaining their understanding of the problems and the logistics
- taking a comprehensive history including where language may be a communication barrier
- giving appropriate instructions to nurses, Aboriginal health workers, other healthcare workers, and people with no medical training
- assessing the logistics and resources involved in managing, or stabilising and transporting the patient if required
- referring the patient appropriately as per protocols.

#### 4.1.3 Investigations

The registrar will use appropriate investigations, screening protocols, reporting requirements, care planning and follow up, as relevant to the remote medicine context.

#### 4.1.4 Communication skills

The registrar will establish a positive and effective doctor-patient relationship and be respectful of and receptive to diverse views, including different cultural values.

#### 4.1.5 Motivational counselling

The registrar will understand and use the principles of motivational counselling to foster patient empowerment.

#### **4.1.6 Mental health**

The registrar will undertake a basic mental health screening of patients and know when and how to refer appropriately. This includes identifying symptoms of depression and post traumatic stress disorder in patients and colleagues, and discussing the appropriate treatment and referral.

### **4.2 Domain 2. Extended clinical practice**

#### **4.2.1 Cross-disciplinary extended clinical role**

The registrar will undertake the extended clinical role required in a remote community context – including those undertaken by a pharmacist, nurse, vet, advocate and medical specialist – and/or refer appropriately

#### **4.2.2 Secondary and tertiary care**

The registrar will undertake dual hospital and office based clinical practice, including primary, secondary and tertiary medical care skills. This includes:

- moving between these roles when working in isolation
- taking a leadership role
- performing and interpreting level 1 radiology – limbs, chest x-ray, emergency GP radiology and iStat machine
- providing bedside medical care
- conducting point of care testing – pathology, basic tests, collection of pathology, medical supply and chain of supply
- performing real time ultrasound
- undertaking sterilisation and infection control measures in the remote context
- performing government medical officer responsibilities as per relevant protocols.

#### **4.2.3 Disaster planning**

The registrar will outline the core principles of disaster preparation, response and management, including:

- knowing what equipment and resources are needed
- maintaining, repairing, testing and calibrating equipment
- diagnostic and basic information technology skills
- competent use of radio communication technology
- competent use of a satellite phone.

#### **4.2.4 Chronic disease management**

The registrar will establish, oversee, organise and manage chronic disease systems in remote communities, including:

- relating the clinical findings with a working diagnosis that considers the possibility of serious illness inherent in commonly presenting symptoms (e.g. a sore leg in a child may suggest a possible diagnosis of rheumatic fever in an Indigenous child<sup>17</sup>)
- performing clinical aspects of chronic care specific to their remote environments (e.g. dialysis)
- prescribing and dispensing medications within standard treatment protocols.

### **4.3 Domain 3. Emergency care**

#### **4.3.1 Emergency skills**

The registrar will demonstrate competent emergency care and advanced life support skills relevant to remote environments in the fields of:

- paediatrics
- basic surgery skills
- obstetrics
- reducing fractures
- trauma management.

#### **4.3.2 Retrieval and medical evacuation**

The registrar will demonstrate the ability to stabilise, prepare, evacuate or retrieve a critically ill patient, including:

- performing acute management and triage
- ability to maintain the patient during retrieval, including understanding of altitude physiology and stabilisation
- improvisation and novel methods of medical care
- conducting a risk management assessment
- managing logistical and resource considerations
- accessing a specialist network and environment
- lighting an airstrip at night and checking the airstrip
- understanding weather reports and providing these to retrievers.

#### **4.3.3 Blood bank**

The registrar will discuss the protocol for establishing a donor panel to use in an emergency, including managing a walk-in blood bank to take blood by donation.

#### **4.3.4 Improvisation**

The registrar will demonstrate an ability to improvise and be resourceful when working with limited human and physical resources.

#### **4.3.5 Referral**

The registrar will show the ability to recognise his/her own limitations and know when, how and where to refer appropriately.

### **4.4 Domain 4. Population health**

#### **4.4.1 Health status**

The registrar will describe the health status of the community in which they work, with reference to:

- demographic information – age, gender, cultural groupings, population, first language, traditional health beliefs and practices
- geographic issues that impact on health status – access to food supply, employment status, access to services, social systems, leaders, policy, level of education and community wealth.<sup>18</sup>

#### **4.4.2 Epidemiology**

The registrar will describe and discuss the epidemiology of remote communities, including:

- patterns and prevalence of disease
- public health issues, infectious diseases and their spread.

#### **4.4.3 Public Health**

The registrar will discuss the public health issues relevant to remote communities, including:

- infrastructure, public health surveillance and procedures
- disease control initiatives, environmental health issues
- water supply, sewerage systems, water testing
- power supply and generator maintenance
- triage and the mortuary.

#### **4.4.4 Population health approach**

The registrar will use a population health approach in providing primary medical care to remote communities. This includes:

- taking a population health approach to addressing the health needs of particular target groups (e.g. men's health in mining, defence and farming communities, as they often present late)
- practising brief interventions with clients,
- establishing preventive screening and education programs.

#### **4.4.5 Occupational and personal health and safety**

The registrar will identify the occupation and personal health and safety issues relevant to remote communities, including:

- occupational medicine issues
- personal safety issues and security.

#### **4.4.6 Transport**

The registrar will drive a four-wheel-drive passenger vehicle competently.

### **4.5 Domain 5. Aboriginal and Torres Strait Islander health**

*Please note: This domain also applies to indigenous and linguistic groups in other countries.*

#### **4.5.1 Cultural sensitivity**

The registrar will demonstrate the ability to practice in a culturally sensitive and respectful way when working with other cultures.

#### **4.5.2 Cultural communication skills**

The registrar will demonstrate the ability to elicit patients' health concerns and communicate health information in a culturally-appropriate, non-judgemental manner by:

- showing consideration for the patient's emotional state, physical health, social disadvantage, economic circumstances, level of education, age and gender

- showing respect for a patient's traditional health beliefs, their cultural understanding of health and their cultural background
- showing consideration for experiences of racism, trauma, torture, war, violence and high risk behaviours
- respectfully seeking appropriate cultural and traditional health advice as required
- knowing how to organise and use an interpreter as required
- communicating health information in a way that is empowering and provides the patient with the skills to use the information.

#### **4.5.3 Social determinants of health**

The registrar will describe the links between social factors and their effects on the health outcomes in a particular community. This includes:

- describing the impact of poverty, nutrition, housing, education and employment opportunities, family relationships, social support, transport, and control over one's life
- explaining the Barker hypothesis<sup>4</sup> and health outcomes in adulthood.

#### **4.5.4 Mental health**

The registrar will demonstrate the ability to diagnose and manage common mental health conditions in remote communities, including:

- identifying the symptoms of depression, anxiety and behavioural disturbance in children and young people
- discussing the psychological impact of substance abuse, domestic violence, hunger, overcrowding, resilience factors, child abuse and neglect, opportunity and resilience, alienation, Post Traumatic Stress Disorder, vulnerability
- providing appropriate support, intervention, harm reduction strategies and referral as required.

### **4.6 Domain 6. Professional, legal and ethical practice**

#### **4.6.1 Teamwork**

The registrar will work effectively as part of a multidisciplinary and cross cultural team.

#### **4.6.2 Leadership**

The registrar will demonstrate leadership in their remote role, where appropriate.

#### **4.6.3 Best practice**

The registrar will keep abreast of best practice evidence and recent advances in technology sufficient to know where and how to find information.

#### **4.6.4 Legislation**

The registrar will apply medical legislation in the remote context to:

- notification of disease
- notification of births and deaths
- autopsy
- patient consent.

#### **4.6.5 Self care**

The registrar will discuss individual strengths, values and vulnerabilities in maintaining a personal and professional balance in a remote context. The discussion will include:

- dealing with boundary issues, especially when caring for patients who might also be friends, family, or colleagues
- showing an ability to fill multiple roles, such as professional colleague, friend, confidant, manager, parent, administrator, doctor
- being critically self-reflective, with a demonstrated capacity to learn from mistakes through reflection and feedback
- undertaking critical incident debriefing as required
- dealing with ethical dilemmas of isolation and community enmeshment, especially following a traumatic incident or natural disaster.

#### **4.6.6 Ethical practice**

The registrar will discuss the principles of ethical practice in a remote community, including:

- respecting different cultural frameworks for determining ethical behaviour<sup>18</sup>
- understanding the ethical principles underlying the care of chronically ill patients in remote practice – informed consent, confidentiality, autonomy and issues associated with dying
- respecting a patient's right to refuse, or vary treatment
- understanding local issues that might impact upon the decision to treat a person locally or refer.

#### **4.6.7 Impaired practitioners**

The registrar will discuss the issues and responsibilities associated with identifying and managing an impaired practitioner who may also be a colleague and friend.

#### **4.6.8 Advocacy**

The registrar will develop the skills to advocate on behalf of remote communities, including:

- understanding the political context
- talking to government and making submissions to government agencies
- administration and health care planning
- adopting a direct advocacy role where appropriate
- participating in relevant working parties and committees
- being multi-skilled and community-aware
- undertaking an educational role. For instance, empowering your community and training staff and support colleagues to encourage their continued service.

#### **4.6.9 Management skills**

The registrar will demonstrate high-level time management and organisational skills and basic project management and staff management skills as required.

## 4.7 Domain 7. Rural and remote context

### 4.7.1 Nature of remote communities

The registrar will discuss the nature of remote communities, and of medical practice in these environments, including:

- sociology of remote communities
- treating self, family, pets and those you know and work with
- having a greater responsibility of care
- using different protocols appropriately
- management skills and professional networks
- strategies for reducing professional and personal isolation and burnout.

## 5. Teaching and Learning Approaches

The unique aspects of remote medical practice offer challenges for standard teaching and learning approaches. Therefore more innovative and practical approaches may be required. One of the key features of remote medical practice is that the majority of remote doctors are employed by an organisation, as opposed to being solo practitioners in private practice. The majority of these organisations conduct in-house professional development and continuing medical education programs, in which registrars are required to participate. These offer specific teaching and learning opportunities.

Therefore the teaching and learning approaches to be used in this Advanced Specialised Training curriculum in remote medicine include, but are not limited to:

- *In-house professional development programs* – provided by the registrar's employer organisation(s)
- *Clinical, experience-based learning* – this is the most valuable approach to learning specific clinical skills
- *Face to face education meetings* – these may be linked with training providers, undertaken by teleconference or video conference, or opportunistically through relevant conferences
- *Distance learning modes* – these are available via the internet, using *Rural and Remote Medical Education Online (RRMEO)* and other sources
- *Tele-tutorials and other activities offered by training providers*
- *Self-directed learning activities*
- *Learning activities offered through relevant courses.*

## 6. Supervision and Support

Supervision offers challenges for remote medicine posts, as registrars may be in physically different locations to their supervisors, possibly mobile, or even in a different country. Registrars will require medical, cultural and professional support and supervision. A range of flexible approaches are needed to deliver this supervision over a diverse and challenging range of posts.

This supervision and support will include:

1. *Supervisor(s)* – The registrar may require one or more ACRRM accredited clinical supervisors to support them in this post, which will be assessed on an

individual basis. The supervisor(s) may provide face-to-face or remote supervision. Registrars are required to establish and maintain a learning plan with their supervisor, which will be jointly reviewed on a regular basis. Additional support is offered by distance through supervisor visits, training provider activities, email, teleconferencing and other links.

2. *Primary mentor* – The primary mentor may be an external person who currently works, or has previously worked, in a similar situation as the registrar. This role could include pastoral care, opportunities to debrief or act as a sounding board about cultural or personal issues, and the provision of a two-way supportive and listening role.
3. *Cultural mentor* – The role of a cultural mentor is to advise the registrar on cultural issues and support them in exploring and understanding the cross-cultural context. This may be a remote Indigenous health worker, or a community or liaison person.

## 7. Assessment

The assessments required for Advanced Specialised Training in remote health are additional to the assessments undertaken for Core Clinical Training and Primary Rural and Remote Training.

Registrars undertaking Advanced Specialised Training in remote health are required to complete the following additional assessment tasks:

Formative tasks:

- *Formative remote medicine supervisor feedback reports* – at 6 months

Summative tasks:

- *Summative remote medicine supervisor feedback reports* – at 12 months
- *Remote medicine research or community health project* – a substantial project which addresses an area of need in the local community and fulfilling the criteria outlined below. Projects must be approximately 4000–5000 words in length or equivalent amount of work. A project plan must be approved prospectively by the registrar's supervisor, employer organisation and ACRRM. The project must be submitted to ACRRM for assessment and will be graded on a pass/fail basis.

### 7.1 Remote medicine supervisor feedback reports

The registrar's supervisor will complete feedback reports half way through the training term (i.e. 6 months for a full-time registrar) and again at the completion of the training term (i.e. 12 months for a full-time registrar). The first feedback report will be completed as a formative activity to guide further registrar learning and development. The second feedback report will be a summative exercise used to determine the registrar's competence.

These reports are a collation of the feedback from staff that have supervised or worked alongside the registrar during the period of training. Feedback will be obtained from at least two consultants or colleagues, including the registrar's supervisor. It is the responsibility of the supervisor to obtain and this information and send to the College.

## 7.2 Remote medicine research or community health project

The remote medicine research or community health project is a summative task which must be completed satisfactorily in order to pass the advanced specialised training term in remote medicine. The topic and format of the project must be prospectively approved the registrar's employer, supervisor, medical educator and ACRRM. The completed project must be submitted to ACRRM for assessment and will be graded on a pass/fail basis.

The project must:

- address an issue of importance to the local community
- demonstrate the registrar's 'in depth' understanding of a local health issue including the relevant literature
- involve working with the local community to identify and implement strategies to improve the current situation
- demonstrate understanding of the strengths and resilience of aspects of the local community
- demonstrate clear consideration of local capacity building and sustainability
- address key learning objectives from the remote medicine AST curriculum
- include an evaluation of success.

The options for this project include but are not limited to:

- development of a practical resource – e.g. funding or accreditation submission, chronic disease register, standard drug list, practice profile
- a research project
- a local disease prevention or health promotion project
- documentation of an issue of importance to the local community – e.g. documenting the journey(s) of one or more patient(s) and their illness experience
- submission and acceptance of an article for publication in a peer-reviewed journal
- an essay
- a poster presentation or PowerPoint presentation.

## 8. Potential Articulation

There are several university programs that provide links with this Advanced Specialised Training post and offer registrars academic support and remote academic content. Registrars are encouraged to consider undertaking this post at the same time as they complete these distance education programs or their equivalent. Using their AST clinical time towards these programs will enhance registrar understanding in this area.

Recommended courses include but are not limited to:

- The Master of Remote Health Practice Program conducted by Flinders University's Centre for Remote Health in Alice Springs. <http://crh.flinders.edu.au>
- The Master of Public Health and Tropical Medicine conducted by James Cook University in Townsville. [www.jcu.edu.au](http://www.jcu.edu.au)
- The Master of Rural and Remote Medicine conducted by James Cook University in Townsville. [www.jcu.edu.au](http://www.jcu.edu.au)
- The Master of Public Health conducted by Menzies School of Health Research in Darwin. [www.menzies.edu.au](http://www.menzies.edu.au)

- Short courses offered by the Peninsula Postgraduate Institute of Health in the UK. <http://www.pphi.ac.uk/institute/index.php>

## 9. Core Resources

Due to the diversity within the remote medicine context, core resources will vary to suit the needs of each post. The following is a list from which a registrar or supervisor can select core resources:

- Access to Rural and Remote Medical Education On Line (RRMEO) [www.rrmeo.org.au](http://www.rrmeo.org.au)
- *UpTODATE* electronic database that provides current, published, summarised evidence and specific recommendations for patient care [www.uptodate.com](http://www.uptodate.com)
- NT CARPA Standard Treatment Manual or Qld Primary Clinical Care manual – or equivalent in each state or territory [www.nt.gov.au/health/docs/cdc\\_CARPAreferencebook.pdf](http://www.nt.gov.au/health/docs/cdc_CARPAreferencebook.pdf)
- CARPA Reference Manual, 4<sup>th</sup> edition [www.carpa.org.au/manual\\_reference.htm](http://www.carpa.org.au/manual_reference.htm)
- CRANA National Clinical Procedures Manual for Remote Practice, Council of Remote Area Nurses of Australia, [www.crana.org.au](http://www.crana.org.au)
- Women's Business Manual, Council of Remote Area Nurses of Australia, [www.crana.org.au](http://www.crana.org.au)
- Australian Medicines Handbook [www.amh.net.au/](http://www.amh.net.au/)
- *The public health bush book* volume 1+2 NT Dept of Health and Community Services, Darwin.
- Top End Division of General Practice Working Party, Tropical Health in the Top End: An introduction for health practitioners, Top End Division of General Practice, Darwin.
- D. A. Warrell, T. M. Cox, J. D. Firth and E. J. Benz, 2003, Oxford Textbook on Anaesthetics (eds). Oxford University Press, Oxford.
- Couzos, S. and R. Murray, *Aboriginal primary health care, An evidence based approach, 2nd edition*. 2003, Melbourne: Oxford University Press.
- *Emergency Medicine in Unique Environments*, in *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 6th Edition*, J.E. Tintinalli, et al., eds. 2006, The American College of Emergency Physicians, McGraw Hill: Columbus OH.
- Smith, J.D., *Australia's rural and remote health: A social justice perspective, 2nd ed.* 2007, Melbourne: Tertiary Press.
- Auerbach PS, *Wilderness Medicine*, 2006, 5th Edition - *Textbook + DVD*.
- Bledsoe G, Mike Manyak M, and Townes D (eds) *Expedition Medicine*, University Press (2007 In press).

Other useful websites include:

- Wilderness medicine [www.wms.org](http://www.wms.org)
- Royal Flying Doctor Service [www.flyingdoctor.net](http://www.flyingdoctor.net)
- Expedition medicine including: desert, polar, jungle, expedition, wilderness [www.expeditionmedicine.co.uk/resource.php?id=46](http://www.expeditionmedicine.co.uk/resource.php?id=46)
- [www.gppt.com.au/exped%20med/Expedition%20Medicine.htm](http://www.gppt.com.au/exped%20med/Expedition%20Medicine.htm)
- Central Australian Remote Practitioners Association [www.carpa.org.au](http://www.carpa.org.au)
- Centre for Remote Health, Flinders University [www.crh.flinders.edu.au](http://www.crh.flinders.edu.au)

- Wilderness Medicine and Expedition Medicine [www.expeditionmedicine.co.uk](http://www.expeditionmedicine.co.uk)
- Centre for Military and Veteran's health, Brisbane [www.uq.edu.au/cmvh](http://www.uq.edu.au/cmvh)
- Antarctic Medicine [www.aad.gov.au](http://www.aad.gov.au)
- [medicine@aad.gov.au](mailto:medicine@aad.gov.au) OR [www.medicalantarctica.com](http://www.medicalantarctica.com)

## 10. Evaluation

The Advanced Specialised Training Curriculum in remote medicine will be evaluated on an ongoing basis using both qualitative and quantitative methods. All stakeholders involved in the process will be asked to provide feedback regarding the content, feasibility, rigor and outcomes in preparing doctors to take on these roles. Stakeholders will include registrars, supervisors, employers, medical educators from the regional training providers and others who may have been involved such as Rural Workforce Agencies, the Remote Vocational Training Scheme, universities and health service providers. The information gathered will be collated by ACRRM and will feed into a 3-5 yearly review of the curriculum.

## References

1. ABS, Population distribution. Australian Social trends 2008, ABS <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Chapter3002008>. Retrieved 10.7.09.
2. Smith, J.D., *Australia's rural and remote health: A social justice perspective*. 2004a, Melbourne: Tertiary Press.
3. AIHW, *Australia's health 2006*. 2006a, Canberra: Aust Institute of Health and Welfare.
4. Hoy, W., M. Rees, E. Kile, J.D. Matthews, and Z. Wang, *A new dimension to the Barker hypothesis: Low birthweight and susceptibility to renal disease*. *Kidney Int*, 1999. **56**(3): 1072-7.
5. ABS, Australian Bureau of Statistics (2006) National Aboriginal and Torres Strait Islander Health Survey 2004-05., [www.abs.gov.au](http://www.abs.gov.au). Retrieved 6.5.2006
6. Couzos, S. and R. Murray, *Aboriginal primary health care, An evidence based approach, 2nd edition*. 2003, Melbourne: Oxford University Press.
7. HREOC, *Bush Talks*. 1999, Human Rights and Equal Opportunity Commission: Sydney. pp. 1-28.
8. Lugg, D.J., *Antarctic Medicine, Section 16, Emergency Medicine in Unique Environments*, in *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 6th Edition*, J.E. Tintinalli, et al., Editors. 2006, The American College of Emergency Physicians, McGraw Hill: Columbus OH.
9. O'Connor, M., *Humanitarian assistance by military forces*. *ADF Health*, 2006. **7**(Oct): p. 49.
10. Leggatt, P.A., *Tropical medicine: a reemerging specialty*. *ADF Health*, 2006. **6**(Oct): 76-9.
11. Smith, J.D., *Australia's rural and remote health: A social justice perspective, 2nd ed*. 2007, Melbourne: Tertiary Press.
12. Ellis, I. and K. Kelly, *Health Infrastructure in Very Remote Areas: An Analysis of the CRANA Bush Crisis Line Database*. *Australian Journal of Rural Health*, 2005. **13**(1): 1-2.

13. Wakerman, J., *Defining remote health*. Aust J. of Rural Health, 2004. **12**(5): 215-219.
14. Wakerman, J., *Access to health care services in remote areas. Commissioned paper for the Regional Australia Summit, 27th Oct. 1999*, Department of Transport and Regional Services: Canberra.
15. Knight, S., *Foreword*, in *Rural nursing in the Australian context*, L. Siegloff, Editor. 1997, Royal College of Nursing Australia: Canberra. pp. v-vi.
16. NAHS Working Party, *National Aboriginal health strategy*. 1989, Commonwealth of Australia, Aust Government Printing Service: Canberra.
17. Smith, J.D., *Educating to improve population health outcomes in chronic disease, 2nd ed.* 2006a, Menzies School of Health Research: Darwin.
18. Smith, J.D., K. O'Dea, R. McDermott, B. Schmidt, and C. Connors, *Educating to improve population health outcomes in chronic disease: an innovative workforce initiative across remote, rural and Indigenous communities in northern Australia*. Rural and Remote Health, 2006c. **6**(606): Available at: <http://rrh.deakin.edu.au>.



Remote

Medicine



Australian College of  
Rural and Remote Medicine

Level 4, 410 Queen Street  
Brisbane Q 4000  
email: [acrrm@acrrm.org.au](mailto:acrrm@acrrm.org.au)  
website: [www.acrrm.org.au](http://www.acrrm.org.au)  
phone: +61 7 3105 8200  
fax: +61 7 3105 8299