



Advanced Specialised Training Curriculum

Adult Internal Medicine



Australian College of
Rural and Remote Medicine

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1. Background

Completion of a minimum 12 months Advanced Specialised Training is an essential component of training towards ACRRM Fellowship. Registrars can select from ten advanced training areas which reflect rural and remote clinical practice needs. Adult internal medicine (AIM) is a particular priority because it makes up the majority of the workload in rural and remote general practice, and because access to general physicians in these areas is limited.

This Advanced Specialised Training (AST) Curriculum in adult internal medicine builds on the AIM component of the ACRRM Primary Curriculum. The basic knowledge and skills described in the Primary Curriculum are assumed as prior or concurrent learning and are not re-stated. This AST curriculum covers many of the same basic topic areas that are covered in the Adult Internal Medicine Curriculum Statement in the Primary Curriculum. However, this AST curriculum requires higher levels of achievement in a number of these areas. Whereas the Primary Curriculum predominantly requires 'knowledge' and 'understanding', this AST curriculum calls for 'experience' and 'competence' in many areas.

This AST curriculum also recognises the overlap between the discipline of adult internal medicine and other AST disciplines such as emergency medicine and remote medicine.

2. Purpose and Requirements

2.1 Purpose

The purpose of this curriculum is to improve adult internal medicine services in rural and remote communities through increased access to GPs with advanced training in this important specialty area. This curriculum defines the advanced skills that will enable GPs to offer enhanced AIM care to their communities, and provide an advisory resource in AIM to other GPs.

2.2 Target group

This curriculum targets ACRRM registrars who are undertaking an Advanced Specialised Training year in adult internal medicine. Registrars who undertake an AST in adult internal medicine are likely to be interested in developing and using higher level diagnostic skills and higher level skills in managing chronic complex conditions in a rural setting. These skills would be beneficial in all rural or remote general practice settings. Therefore, advanced training in adult internal medicine would be highly relevant and valuable for all ACRRM registrars.

2.3 Duration

Advanced Specialised Training in adult internal medicine requires a minimum 12 months full time or equivalent part time training. The training program will take into account other professional, personal and family needs and will offer the flexibility for individuals to undertake their training on a part time basis or in two or more blocks. Registrars who choose these options will not be disadvantaged. Subject to prior approval by the ACRRM censor, registrars may request to undertake up to 6 months of this training in one or two sub-specialty areas.

2.4 Potential posts

Training for the Advanced Specialised Training year in adult internal medicine must be undertaken in institutions accredited by ACRRM. Such institutions must have the caseload

and teaching capacity to provide appropriate experience and training in a sufficient range of AIM conditions to meet the requirements of this curriculum.

These posts would have the following features:

- inpatient care facilities
- outpatient and community-based care
- registrar employed as Principal House Officer or equivalent
- on-call or after-hours services
- at least one resident general physician full-time or Visiting Medical Officer
- meets RACP requirements for basic training in general medicine
- ideally in a rural or regional location.

Adult internal medicine is a very broad discipline, with approximately 20 sub-specialty areas. It is not possible for any registrar to gain extensive experience in more than a few of these areas during an AST year. Some posts will provide greater depth in a particular sub-specialty, while others will provide greater breadth of experience across different sub-specialties. It is desirable to spend at least part of this training year in a 'general medicine' specialty post. Similarly, hospital-based posts will give greater experience in acute AIM presentations whereas outpatient or community facilities will give greater experience in the ongoing management of complex and chronic disease. It is highly desirable for registrars to gain experience in both of these areas.

In order to achieve the required experience, it may be necessary to split training between two suitable posts, undertaken either consecutively or on a simultaneous part-time basis.

2.5 Prerequisites

Advanced Specialised Training in adult internal medicine should be ideally undertaken in the third or fourth year of ACRRM Fellowship training. Prior completion of some Primary Rural and Remote Training (PRRT) time is preferred but not essential.

Prior to undertaking this post, registrars must meet the following criteria:

- satisfactory completion of the Core Clinical Training component of ACRRM Fellowship training, including a minimum of one term in adult internal medicine
- satisfactory completion of an advanced life support course – may be completed during the first 6 months of the AST year, if not already attained as a prerequisite.

3. Rationale

Adult internal medicine is an important specialty area for rural and remote general practitioners. The vast bulk of the caseload for most rural or remote GPs, both in hospital and community settings, will be AIM presentations. With the ageing population, the complexity of such presentations is also increasing. It is often impractical for patients from rural or remote areas to travel to a regional centre for specialist physician consultation. Therefore rural and remote GPs are often required to diagnose and manage an extended range of adult internal medical conditions with a greater degree of independence compared to their urban counterparts.

A number of key features distinguish adult internal medicine practice in rural and remote regions from that in urban areas. These include:

- limited easy access to general physicians and sub-specialty physicians
- extended role of GPs with advanced training in AIM

- reduced access to diagnostic modalities
- greater reliance on tele-medicine services

Specialty training in adult internal medicine requires broad problem-solving skills, which form an excellent foundation for rural and remote practice. By completion of this AST, registrars should have developed higher level diagnostic skills and greater competency in management of complex and chronic conditions.

4. Learning Outcomes

The *domains of rural and remote medical practice* have been defined by ACRRM and provide a framework for organising the learning outcomes 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.

ACRRM is committed to training rural doctors to provide relevant practical and procedural skills appropriate to practise in rural and remote areas. While development of such skills is not a mandatory component of the AIM curriculum, it is strongly encouraged, and will be supported by ACRRM.

As you read the following learning outcomes, your attention is drawn to the specified level of achievement for each outcome – e.g. ‘discuss’, ‘demonstrate experience and competence’, ‘demonstrate high-level skills’. These levels of achievement differentiate the requirements of this curriculum from those of the adult internal medicine component of the ACRRM Primary Curriculum.

4.1 Domain 1. Core clinical knowledge and skills

4.1.1 History taking

The registrar will demonstrate enhanced skills in patient history taking. This includes:

- taking full, rich, detailed, accurate histories
- focused history taking
- history taking in complex, chronic and multi-system disorders

4.1.2 Physical examination

The registrar will demonstrate high-level examination skills, including:

- elucidation of a wide range of clinical signs including subtle clinical signs

4.1.3 Diagnostic reasoning

The registrar will demonstrate experience and competence in diagnosing a broad range of conditions with a high degree of detail and accuracy. This includes:

- using a thorough, patient-centred diagnostic process
- advanced skills in diagnosing undifferentiated presentations – e.g. chest pain, respiratory failure, neurological symptom complexes

- high-level skills in diagnosing chronic, complex and multi-system disorders
- prioritising diagnoses in complex disorders
- diagnosis of difficult or complex cases involving vague or inconclusive clinical pictures and test results

4.1.4 Diagnostic investigations

The registrar will demonstrate understanding of the indications, contra-indications and techniques for an extended range of diagnostic investigations and the ability to arrange these tests and interpret their results. Development of ability to perform these tests is strongly encouraged but not mandatory. If registrars wish to gain advanced skills in these procedures, they will be supported by ACRRM to do so.

This includes:

- coronary angiography
- Holter monitoring
- exercise testing
- echocardiography
- polysomnography
- endoscopies (performance of these tests subject to accreditation by the Conjoint Committee for the Recognition of Training in Gastroenterological Endoscopies)
- abdominal ultrasound
- diagnostic joint injections and aspiration – both large and small joints
- pleural aspiration and paracentesis
- bronchoscopy.

4.2 Domain 2. Extended clinical practice

4.2.1 Primary, secondary and tertiary clinical management

The registrar will demonstrate extended breadth and depth of clinical competence in managing AIM conditions.

- initial clinical management of acute undifferentiated conditions
- ongoing clinical management of a wide range of simple and complex AIM conditions
- taking responsibility for decision making and consequences, including liaising with specialty units

These skills should be demonstrated for many of the following conditions:

- Cardiology
 - ischaemic heart disease – management of the first 12-24 hours following an acute myocardial infarct, ongoing management and rehabilitation
 - acute cardiac failure and chronic heart failure – long-term management following hospital discharge
 - atrial fibrillation
 - acute arrhythmias
 - resistant hypertension
 - abdominal aortic aneurysm
- Nephrology
 - acute renal failure
 - chronic kidney disease

- acid-base balance disorders
- Respiratory and sleep medicine
 - acute respiratory failure – management of an extended range of causes and severity, including pneumonia and infectious diseases
 - pulmonary embolus – including early recognition and management
 - acute asthma
 - sleep apnoea
 - end-stage respiratory failure
- Infectious diseases
 - exotic infectious diseases
 - nosocomial infections
 - serious infections requiring in-patient management
 - septic patients
- Gastroenterology
 - GI bleeding
 - ischaemic bowel
 - inflammatory bowel disease – chronic management
 - hepatitis and liver failure
- Rheumatology
 - connective tissue disorders
 - gout
- Endocrinology
 - diabetes management, including multidisciplinary approaches and insulin therapy
 - thyroid disease, including acute thyrotoxicosis and thyroid crisis
 - uncommon endocrine disorders of adrenal and pituitary glands
- Neurology
 - epilepsy
 - Parkinson's Disease
 - stroke
 - migraine
- Haematology and oncology
 - severe cytopaenias – initial resuscitation
 - ongoing maintenance of patients co-managed by oncologists
- Geriatrics
 - dementia and delirium
 - polypharmacy
 - behavioural disorders
- Rehabilitation medicine
- Palliative care
 - psychosocial care
 - symptom control – including advanced drug delivery

4.2.2 Pharmaceutical prescribing, delivery and monitoring

The registrar will discuss appropriate use of a wide range of drugs, including but not limited to drugs used for:

- thrombolytic therapy
- inotropic therapy
- disease modifying anti-rheumatic drugs (DMARDs)
- insulin therapy:
- chemotherapy
- advanced palliative care
- anticoagulation

4.2.3 Clinical procedural skills

The registrar will understand and be able to perform clinical procedures as appropriate, including using specialised equipment:

- cardioversion
- haemo- and peritoneal dialysis – including home dialysis trouble-shooting skills
- home oxygen

4.2.4 Telemedicine

The registrar will demonstrate familiarity with the technical aspects, limitations and effective use of telemedicine technology for enhanced diagnosis and management.

4.2.5 Referral and transfer

The registrar will demonstrate appropriate referral patterns, including:

- knowing their own limitations
- knowing when and how to refer appropriately

4.3 Domain 3. Emergency care

4.3.1 Triage, initial assessment and stabilisation

The registrar will demonstrate experience and competence in the initial assessment and triage of patients with acute or life threatening AIM conditions.

4.3.2 Definitive emergency care

The registrar will demonstrate experience and competence in providing definitive emergency resuscitation and management of patients with acute or life threatening AIM conditions.

4.4 Domain 4. Population health

4.4.1 Community health issues

The registrar will demonstrate the ability to assess local disease patterns, identify underlying community health issues, and develop appropriate management strategies. For example:

- infectious diseases – sexually transmitted infections (STIs), influenza, meningitis
- food and water borne illnesses
- zoonoses, particularly outbreaks

4.4.2 Prevention and early detection of disease

The registrar will demonstrate experience and competence in the application of evidence based activities to reduce the burden of disease in the community using practice and community based strategies. For example:

- diabetes
- heart disease
- chronic kidney disease
- tobacco, alcohol and other drug use

4.4.3 Information and recall systems

The registrar will competently use an electronic record system to recall patients for follow-up or review of AIM conditions.

4.5 Domain 5. Aboriginal and Torres Strait Islander Health

4.5.1 Barriers to health care services

The registrar will discuss the barriers to health care and services for Indigenous people in the community, such as:

- access to services
- alienation by culturally inappropriate or even hostile health services
- overt or structural racial discrimination
- health impact of dispossession
- administrative issues, such as: entitlement cards, transport policies.

4.5.2 Health attitudes, beliefs and customs

The registrar will be aware of local Indigenous attitudes, beliefs and customs relating to illness and medical treatment.

4.5.3 Cross-cultural communication skills

The registrar will demonstrate the ability to communicate with Indigenous community members in a culturally appropriate and medically effective manner.

4.6 Domain 6. Professional, legal and ethical practice

4.6.1 Legal and ethical practice

The registrar will demonstrate the ability to establish and maintain appropriate procedures and protocols and provide appropriate staff training to ensure adherence to the legislative and ethical requirements governing the medical profession, including:

- patient confidentiality
- consent
- notification of births and deaths
- advanced directives and limits of resuscitation

4.6.2 Teaching and learning

The registrar will demonstrate a commitment to ongoing professional development of self and colleagues by:

- engaging in life-long learning
- engaging in the education of other medical and health professionals and students, particularly in the area of Adult Internal Medicine

4.6.3 Quality assurance

The registrar will demonstrate a commitment to and ability to conduct quality assurance activities including:

- clinical audit
- critical incident and near miss analysis

4.6.4 Multidisciplinary teamwork and care planning

The registrar will demonstrate the ability to lead or work within a multidisciplinary team, including:

- ability to coordinate patient care and provide continuity of care throughout a treatment program
- ability to act as a lead clinician with peers.

4.6.5 Self care

The registrar will demonstrate awareness of their own strengths, values and vulnerabilities in maintaining a personal and professional balance, including:

- boundary issues – caring for patients who might also be friends, family or colleagues
- being critically self reflective, with a demonstrated capacity to learn from mistakes through reflection and feedback
- identifying personal support mechanisms
- recognising personal and emotional limitations and using a plan to take appropriate steps to ensure self-preservation, including taking regular time out

4.7 Domain 7. Rural and remote context

4.7.1 Nature of rural and remote settings

The registrar will discuss the characteristics of rural and remote settings and their impact on adult internal medicine, including:

- types of conditions likely to be encountered
- impact of rural and remote attitudes
- impact of distance
- impact of limited resource availability

5. Teaching and Learning Approaches

The emphasis for Advanced Specialised Training in adult internal medicine will be on acquiring relevant clinical experience and skills. Teaching approaches will include, but are not limited to:

- *Clinical experience based learning* – the majority of teaching and learning should take a case based experiential format. This is the most valuable approach for learning specific clinical skills. At least some of this teaching and learning should use a model of ‘supervised autonomy’.
- *Procedural skills instruction* – practical demonstration and opportunities for simulated or real-life experience in the psychomotor skills described in the ‘Learning Outcomes’ section of this curriculum (Section 4).
- *Self-directed learning activities* – to supplement clinical experience based learning
- *Small group tutorials* – these may be face-to-face, via tele/videoconference or using online webconferencing technology.

- *Simulation laboratory sessions* – these may be needed for those situations that are encountered infrequently in the clinical setting, or those requiring rehearsal of team and inter-professional co-operation. Examples may include cardiac and resuscitation skills.
- *Structured and semi-structured education meetings* – these will generally be inbuilt into an institution’s educational responsibilities e.g. grand rounds, journal clubs.
- *Online or electronic learning resources* – including *Rural and Remote Medical Education online* (RRMEO), the RACP lecture series and other sources.

6. Supervision and Support

Registrars undertaking Advanced Specialised Training in adult internal medicine will require specific medical, cultural, professional and personal support and supervision arrangements. This will include at least:

1. *Primary supervisor* – a local ACRRM accredited clinical supervisor who may, or may not, work in the same organisation as the registrar and assists with the clinical aspects of the registrar’s practice. The supervisor should be a rural doctor who can put specialist information into community-based context
2. *Specialist supervisor* – an adult internal medicine specialist who will support the primary supervisor and is responsible for co-development of the registrar’s learning plans
3. *Mentor* – a person who is working, or has worked in a similar situation, and who provides pastoral care and opportunities to debrief or act as a sounding board about cultural or personal issues. This may be the same person as the primary supervisor.

7. Assessment

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

Registrars undertaking Advanced Specialised Training in adult internal medicine are required to complete the following additional formative and summative assessment tasks.

Formative tasks:

- *Formative AIM AST supervisor feedback reports* – at 6 months
- *Formative AIM AST Mini Clinical Evaluation Exercises (miniCEX)* – minimum 5 adult internal medicine consultations
- *Formative AIM AST project* – a substantial project approximately 1500–2000 words in length or equivalent amount of work, fulfilling the criteria outlined below. The project must be submitted to ACRRM to demonstrate satisfactory completion.

Summative tasks:

- *Summative AIM supervisor feedback reports* – at 12 months
- *Summative AIM AST Mini Clinical Evaluation Exercises (MiniCEX)* – 9 adult internal medicine consultations

While not an absolute requirement for assessment of this AST, it is recommended that registrars may choose to maintain a learning portfolio during their advanced training in AIM. This could include learning plans, reflections on learning progress, details of individual cases or notable experiences during training, details of procedures witnessed or performed (additional to those required for completion of the Primary Curriculum Procedural Skills Logbook), supervisors’ reports and certificates of competency or course completion. Such a

portfolio will prove invaluable in tracking progress, learning planning and providing proof of completion of the required formative and summative assessment tasks.

7.1 Adult internal medicine supervisor feedback reports

The registrar's supervisors 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 supervisors. It is the responsibility of the primary supervisor to obtain this information and send to the College.

7.2 Adult internal medicine project

- The adult internal medicine project is a formative task designed to guide the registrar's learning. The topic and format of the written assessment activity must be prospectively approved by the registrar's supervisor and medical educator. The completed project must be submitted to ACRRM to demonstrate satisfactory completion.

The project must:

- address key learning objectives from the adult internal medicine AST curriculum
- demonstrate the registrar's 'in depth' understanding of the health issue(s) involved including the relevant literature
- explore issues relevant to population health, Aboriginal and Torres Strait Islander health, professional, legal and ethical practice, and the rural and remote context (i.e. domains 4 to 7)
- include a piece of written work.

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

- a set of 3 case commentaries, each 500–700 words in length, each discussing a complex case encountered by the registrar, and each dealing with a different clinical content area
- development of a funding or accreditation submission
- a clinical audit of practice against protocols
- a research project
- submission and acceptance of an article for publication in a peer-reviewed journal
- a poster or oral presentation at a State, National or International medical conference or meeting.

7.3 Adult internal medicine miniCEX

The adult internal medicine mini Clinical Evaluation Exercise (miniCEX) is a practice-based assessment where a medical practitioner observes the registrar in his/her regular practice environment with his/her regular patients.

The formative miniCEX is to guide the registrar's learning and the summative exercise is to assess the registrar's clinical competence. The formative miniCEX can be performed by the supervisor or other medical practitioner. It requires observation and feedback on a minimum of five patient consultations. The summative miniCEX is undertaken by an ACRRM

appointed examiner. The examiner observes nine patient consultations and rates the registrar against six competencies:

1. communication skills
2. history taking
3. physical examination
4. clinical judgment/clinical management
5. rural and remote context/organisation/efficiency
6. overall clinical competence.

The registrar must also meet mandatory requirements for history taking and physical examinations.

8. Essential Resources

- Access to Rural and Remote Medical Education On Line (RRMEO) www.rrmeo.org.au
- Access to 'Up to date', 'Dynamed' or other reputable online database
- Access to PubMed
- Therapeutic Guidelines series

9. Evaluation

The Advanced Specialised Training curriculum in adult internal 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.



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