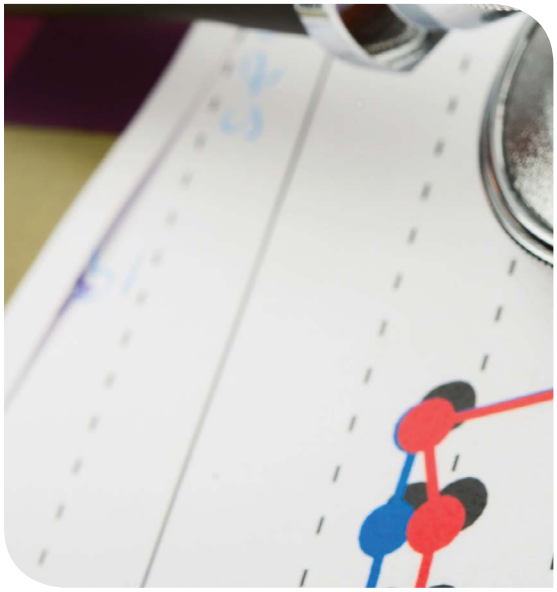
Advanced Specialised Training
Academic Practice

Curriculum



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WORLD LEADERS IN RURAL PRACTICE

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- Dr Lachlan McIver – Senior Rural Generalist, Tennant Creek Hospital, Senior Rural Medical Practitioner, Central Australia Remote Health
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- Prof Lucie Walters – Professor in Rural Medical Education, Flinders University, GP Obstetrician, Mount Gambier Hospital
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Contents

1. Background

Completion of a minimum 12 months Advanced Specialised Training is an essential component of training towards ACRRM Fellowship. Candidates can select from a number of training areas which reflect rural and remote clinical practice and development needs. With national initiatives designed to produce rural training pathways, Academic Practice is one of these priorities.

Academic Practice has been defined as: a branch of medicine pursued by doctors and other health professionals who engage in a variety of scholarly activities. While the traditional role of clinical academics is to provide clinical care, undertake research, and teach, academics today may also spend some of their time in managerial and representative roles. These roles are particularly important for Rural and Remote Medicine, as a fundamental element of credibility for any speciality field is a scientific evidence base that justifies the speciality's existence and promotes its contribution to clinical medicine.

Advanced Specialised Training in Academic Practice is considered a priority for rural and remote general practitioners for a number of reasons:

- Rural and remote general practitioners require skills in critical appraisal and evidence-based implementation skills which enable them to transfer evidence-based finding from other settings into the context in which they work.
- In order to advance practical and theoretical boundaries of rural and remote medicine, clinical academics engaged in this field require research and scholarship skills which enable them to generate knowledge and understanding through basic and applied research.
- There is a national mandate for rural doctors to undertake research projects relevant to the health of people in rural and remote Australia, including indigenous communities, for whom "Closing the Gap" remains an ongoing challenge and priority area of work.
- All rural and remote general practitioners have the opportunity and responsibility to address health workforce shortages through clinical teaching as inequities of access to health in rural and remote communities can be overcome by training within these settings.

The importance of research and teaching in general practice is acknowledged by ACRRM in the structure of this AST curriculum and the ACRRM Primary Curriculum, in which Research and Teaching is seen as a core component of rural and remote medicine and also as a specialty practice area. As a specialty practice area Academic Practice seen to intersect with every aspect of rural and remote medicine.

This Advanced Specialised Training Curriculum in Academic Practice builds on the Research and Teaching statement of the Primary Curriculum. The basic knowledge and skills described in the Primary Curriculum are assumed as prior or concurrent learning.

2. Purpose and requirements

2.1 Purpose

The purpose of this curriculum is to:

- improve research capacity for rural doctors to improve: standards of clinical care, population health, and address the specific health needs of vulnerable communities in rural and remote Australia
- access to work-integrated learning for rural doctors working with other health professionals to improve quality of and access to care for rural and remote populations.

2.2 Target group

This curriculum targets ACRRM candidates who are undertaking an Advanced Specialised Training year in Academic Practice. Advanced study in research and teaching is relevant to all ACRRM candidates across a wide variety of practice settings. Examples include, but are not limited to: private practice, rural hospitals, Aboriginal Medical Services, rural clinical schools, University Departments of Rural Health, remote state health clinics, regional training providers of GP registrar training, and Medicare Locals that undertake education and training as well as research and evaluation of these programs.

In particular, the following groups are likely to pursue an AST in Academic Practice:

- Candidates with previous experience in or interest in pursuing research in areas relevant to rural and remote medicine.
- Candidates settled in a rural and remote community who wish to remain in situ while undertaking their AST in research and education and apply it to their local training pathways.
- Candidates pursuing formal postgraduate medical education credentials such as a Masters degree (e.g. Master of Clinical Education, Master of Rural and Remote Medicine or Master of Public Health).
- Candidates who have identified particular challenges or opportunities relevant to the provision of quality healthcare in their communities which would be amenable to analysis; and health systems strengthening via research; and
- Candidates applying for an Academic Post through the Australian General Practice Training Program.

2.3 Training requirements

Clinical Training

AST in Academic Practice requires a minimum 12 months full time or equivalent part time training. Training will usually integrate academic practice experience with a clinical workload. Candidates seeking to undertake full time academic practice must seek permission in advance using Special Considerations form.

The training program will take into account other professional, personal and family needs and will offer the flexibility for individuals to undertake part time training in two or more blocks.

Education

It is strongly recommended that candidates undertake an academic program in clinical education to support the acquisition of appropriate theoretical knowledge. See the Potential Articulation section of this curriculum for suggestions on suitable courses.

At a minimum, doctors undertaking an AST in Academic Practice are required to satisfactorily complete one formal *Clinical Education course.* The education course must be approved prospectively by the registrar's supervisor, employer organisation and ACRRM.

2.4 Potential posts

Training for the Advanced Specialised Training year in Academic Practice must be undertaken in institutions accredited by ACRRM. These facilities would have the following features:

- Able to offer a suitable range and depth of clinical education and research learning opportunities with a particular focus on rural and remote medicine to enable the candidate to achieve the required learning outcomes;
- Able to integrate teaching and research experience with clinical workload; and
- Able to offer appropriate supervision.

The candidate may work across two facilities to achieve these features. The clinical component may be undertaken in any post accredited by ACRRM for Primary Rural and Remote Training.

2.5 Prerequisites

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

- satisfactory completion of the 12 months Core Clinical Training component of ACRRM Fellowship training, or
- completion of postgraduate year two for those doctors who are not in Fellowship Training.

Prior to undertaking this post, candidates must have achieved competency in basic research and teaching, as outlined in the ACRRM Primary Curriculum. This includes:

- Demonstrate the ability to critically appraise relevant clinical literature and transfer relevant findings into the rural and remote clinical context.
- Confidently using clinical audit processes through case finding, collecting data in an ethical manner, statistical analysis of data, identifying and implementing change and monitoring progress.
- Demonstrate an interest in undertaking research of relevance to rural and remote populations to inform practice and improve health outcomes.
- Teach and clinically supervise health students, junior doctors and other health professionals using 'active' educational methods that include intellectually active and 'hands-on' engagement and which challenge learners.
- Develop plans for learners' clinical attachments that include an orientation, scheduled learning opportunities and sessions, and involvement in supervised patient care.
- Provide feedback that identifies strengths and areas for improvement; relates to expected learning; is timely, specific, descriptive, detailed and honest; and includes guidance for improvement.
- Apply processes of self-reflection and practice audit to document and evaluate the efficacy of changes made to one's own practice performance and patient care.

3. Rationale

There is an imperative for high quality interprofessional training pathways in rural and remote areas to address rural and remote issues including: health workforce issues, clinical care, population health, health inequalities. General Practitioners in rural and remote areas have an opportunity to improve the health of the whole of the community through teaching and research. There is a stark distinction between education and training health resources and services available in rural and remote areas compared to those in urban areas. Urban general practitioners are able to draw heavily on local training opportunities. In rural and remote regions, such resources are less readily available, and general practitioners are more likely to provide front-line research and teaching services with greater autonomy and fewer resources.

Other points of difference between research and teaching practices in rural and remote regions compared to urban areas include:

- variation in illness profile and lifestyle
- greater burden of chronic disease
- lower socioeconomic and educational status compared to urban settings
- increased community involvement and ownership of education and training
- working with indigenous populations
- significant numbers of medical student and junior doctor trainees undergoing clinical placements
- challenges associated with distance
- the expanded clinical role of the rural and remote generalist practitioner (in the absence of multiple other “on-site” specialties), and
- higher turn-over of health care professionals.

This curriculum has been developed with these factors in mind.

4. Learning abilities

The curriculum defines the abilities, knowledge and skills for Advanced Specialised Training in Academic Practice.

The seven domains of rural and remote general practice, defined by ACRRM, provide a framework for organising the learning abilities for this curriculum.

The domains are:

- provide medical care in the ambulatory and community setting
- provide care in the hospital setting
- respond to medical emergencies
- apply a population health approach
- address the health care needs of culturally diverse and disadvantaged groups
- practise medicine within an ethical, intellectual and professional framework, and
- practise medicine in the rural and remote context

These levels of achievement include and build on the abilities, knowledge and skills in the ACRRM Primary Curriculum.

Many of the learning objectives identified in this AST are universal to these domains such as respect for community and ethical research practices. These have been allocated to a single domain for the purposes for providing learners and their supervisors with a clearly defined curriculum.

5. Domains

Domain 1: Demonstrate teaching and research skills in the ambulatory and community setting

Themes: Patient-centered use of evidence, health promotion and prevention, integrating teaching into everyday practice, continuous quality improvement, qualitative research methods

Abilities

1.1 Support learners to access appropriate and current sources of information in response to clinically-generated primary care questions

1.2 Support learners to develop their critical appraisal skills of the literature and other relevant information to assist in decision making related to patient management

1.3 Apply a working knowledge of mixed methods research relevant to your research question, including at least one qualitative method

1.4 Communicate effectively the results of relevant research to peers, learners and the community in terms that can be easily understood

1.5 Use self-reflection and personal practice audit, to document and evaluate the efficacy of changes made in your own clinical teaching performance and patient care

1.6 Perform and present clinical audit through: case finding, collecting data in an ethical manner, statistical analysis of data, identifying and implementing change, and monitoring progress

1.7 Manage patient privacy issues relating to clinical audit data storage and communication

1.8 Describe illness through a biopsychosocial theoretical framework

1.9 Set aside time to incorporate learning into work-time, and identifying key professional groups, conferences and professional journals you will subscribe to

1.10 Develop written or online resources for patients, learners and/or the community on common problems or investigations, using clear, concise and appropriate language and a degree of complexity that ensures patients and learners in the health field understand and are informed

1.11 Support clinicians to develop plans for a medical student's or junior colleague's clinical attachments that include an orientation, scheduled learning opportunities and sessions, and involvement in supervised patient care

1.12 Support clinicians to reliably assess juniors when required, by effective implementation of assigned assessment tools, observing performance, and recording honest and fair judgments of their performance and giving effective feedback

Domain 2: Provide teaching and research skills in the hospital setting

Themes: Critical appraisal of articles, engaging learners in a hospital team, health care quality and safety, quantitative research skills

Abilities

2.1 Utilise an evidence-based approach to clinical care in the hospital setting

2.2 Undertake a literature search of relevant medical information sources, including online databases, Cochrane Collaboration articles and journal publications relevant to rural and remote medicine

2.3 Determine applicability of research findings to the management of hospital inpatients

2.4 Communicate effectively the results of relevant research to peers and colleagues for example within the context of a journal club or clinical meeting

2.5 Participate in and use the results of case presentations in which the learner has a clinical role, as a basis for identifying steps leading to improvements in their clinical performance

2.6 Provide resources to accompany presentations to learners (students, peers, other staff, and patients) that are clear, factually correct, up-to-date, relevant, and at a level appropriate for the learners

2.7 Use questioning and role modeling to challenge learners to develop the predisposition and skill of self-assessing their own performance as a basis for defining their learning needs, and for identifying opportunities inherent in everyday clinical practice

2.8 Analyse learner's errors (near misses or adverse events) using root cause analyses, and ensure learning from an event through discussion in a non-punitive environment

2.9 Evaluate quality of teaching and learning for medical students, candidates or health professionals

Domain 3: Demonstrate teaching and research skills relevant to medical emergencies

Themes: Emergency medical intervention, interprofessional peer review, teaching skills and procedures

Abilities

3.1 Source current evidence-based guidelines for emergency management

3.2 Seek and accept triangulated peer review from multi-disciplinary team members, students and supervisors

3.3 Critically reflect on one's own clinical skills and develop a tailored learning plan with triangulated evidence of skills development

3.4 Use a structured approach to teaching a skill or procedure to a medical student, which includes explanation, then demonstration, then observation of performance and feedback

3.5 Clarify how supervision will occur and allow medical students and junior colleagues input into the supervision process

3.6 Facilitate clinical simulation including development of an emergency scenario, providing clinical oversight and facilitating the debriefing process

Domain 4: Demonstrate teaching and research skills when applying a population health approach

Themes: Community health assessment, population-level health intervention, collaboration with agencies

Abilities

4.1 Facilitate a small-group learning activity to describe the social, environmental, economic and occupational determinants of health that affect the community burden of disease

4.2 Apply a population health approach to clinical teaching when relevant

4.3 Integrate evidence-based prevention, early detection and health maintenance activities into teaching and research activities

4.4 Engage with community members to assess health service needs and gaps which may be amenable to appropriate research activities, and include suitable community agencies and individuals in the research process

Domain 5: Address the health care needs of culturally diverse and disadvantaged groups

Themes: Epidemiological differences between population groups, epidemiology, health and wellbeing worldview, cultural safety and respect, working with groups to improve health outcomes

Abilities

5.1 Apply principles of partnership, community engagement, consultation, capacity building, reciprocity, and respect to research and training

5.2 Demonstrate the principles of respectful engagement of disadvantaged and culturally diverse groups in setting research and education priorities

5.3 Demonstrate respect for self-determination through the development of meaningful research partnerships and active contribution of community

5.4 Draw on a global view of evidence to develop locally responsive health education solutions

5.5 Define the outcomes (knowledge, skills and attitudes) that would be expected of a learner at the end of an education session, outcomes that take into account the current knowledge level of the learner, their curriculum needs, their motivation, and capacity to learn, and their social and cultural background

Domain 6: Practise teaching and research within an ethical, intellectual and professional framework

Themes: Ethical practice, professional obligations, intellectual engagement, self-reflection and planning

Abilities

6.1 Ensure safety, privacy and confidentiality of participants in your patient care, clinical teaching and research

6.2 Understand the range of ethical issues that arise in conducting research and the key factors for best practice in research ethics

6.3 Demonstrate effective self-assessment skills including the capacity to review different methods and strategies for assessing your own competence, and identify advantages and limitations of each

6.4 Use critical reflection techniques to care for yourself as a practitioner, a professional and a person

6.5 Access, interpret and critically evaluate information pertaining to your learning needs from your specialty associations and colleagues, and specialty research journals, reference books, meetings and electronic databases

6.6 Ensure the clinical team functions effectively and that individual needs are being met, by asking team members for group and individual feedback on a regular basis

6.7 Provide feedback which: identifies strengths and areas of improvement, relates to expected learning, is timely, specific, descriptive, detailed and honest, and includes guidance for improvement

6.8 Consciously develop your mentoring strategy, including setting aside time for mentoring

6.9 Provide advice and guidance to others with respect to issues such as: short term learning issues, what it is like to be a vocational trainee and long term career goals

6.10 Take a leadership role in developing and nurturing a ‘360 degree team’ strategy for the formative and summative assessment of yourself and others

Domain 7: Practise teaching and research in the rural and remote context

Themes: Resourcefulness, flexibility, teamwork and technology, responsiveness to context

Abilities

7.1 Evaluate the relevance of the content of educational activities and materials to clinical practice (one's own clinical practice and that of one's rural and remote colleagues), and as needed recommend how this content could more effectively address key knowledge and skills

7.2 Provide direct and distance clinical supervision and support for other rural and remote health care personnel

7.3 Use information and communication technology (ICT) to network, and exchange information and ideas with distant colleagues

7.4 Use distance learning technologies in education, such as videoconferencing and asynchronous web-based programs

6. Knowledge

Essential knowledge required

- Common qualitative methodologies for example case study and action research
- Qualitative data collection techniques for example: surveys, focus groups, stakeholder consultations, key informant interviews
- Common qualitative data analysis techniques such as thematic analysis, grounded theory
- Knowledge and a critique of common quantitative clinical research methods for example: cohort studies, case-control studies and randomised control trials
- Statistical tests and terminology for example: sensitivity and specificity; positive and negative predictive values; odds, risk and rate ratios; Chi squares, t-tests, p values.
- Key concepts including: study power, numbers needed to treat, false positive and false negative, statistical versus clinical significance
- Key (milestone) research undertaken on rural and remote medicine and rural health issues:
  - appreciate what use this research has served
  - appreciate how such research findings can influence government policy and medical training
- Nature and scope of current research activities pertaining to rural and remote general practice including:
  - workforce models
  - recruitment and retention
  - education/training
  - clinical improvements and innovations
  - psychology and sociology of rural communities
- Role of research and clinical audit against context-relevant benchmarks in the continuous quality improvement of a rural/remote medical practice
- Processes involved and the expected outcomes of a critical incident review
- "Upstream" determinants and epidemiology of common emergency department presentations

7. Teaching and learning approaches

The emphasis for Advanced Specialised Training in Academic Practice will be on acquiring teaching and research skills through practical experience.

Learning approaches will include, but are not limited to:

- *Formal academic study*
- *Experience based learning* – working in rural or remote clinical practice and gaining experience in applying population health approaches
- *Face to face education meetings* – these may be linked with training organisations, undertaken by teleconference or video conference, or opportunistically through relevant conferences
- *Distance learning modes* – these are available via the internet, using ACRRM online learning and other sources
- *Tele-tutorials* and other activities offered by training providers
- *Self-directed or supervised project development* – including planning, implementation and evaluation

8. Supervision and support

Candidates undertaking AST in Academic Practice will require specific clinical, educational/ academic and personal support supervision arrangements. This will require:

1. *Specialist Supervisor/s* to fulfil the following roles:
    - A doctor who is overall responsible for the academic supervision of the candidate, and assists the candidate with the project.

This doctor will have an advanced professional qualification in medical/clinical education or public health and a higher degree by research (e.g. research-based Masters, PhD or professional doctorate), along with a track record of research, supervision and education.

- A doctor who is overall responsible for the clinical supervision of the candidate and provides supervision as appropriate to the candidates experience and stage of training.

This supervisor may be an ACRRM accredited supervisor for Primary Rural and Remote training or a doctor who holds an appropriate qualifications and experience relevant to the clinical environment.

2. *General Practitioner mentor* – a general practitioner who is working, or has worked in a similar situation to where the registrar intends to use their advanced skill. The mentor provides pastoral care and opportunities to debrief or act as a sounding board about cultural or personal issues. The supervisor should be a rural doctor who can put specialist information into rural context. This role may be filled by a specialist supervisor who fits these criteria.

9. Assessment

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

Candidates undertaking AST in Academic Practice are required to complete the following additional assessment tasks:

Formative tasks:

- *Formative Academic Practice supervisor feedback report* – at 6 months

Summative tasks:

- *Summative Academic Practice supervisor feedback report* – at 12 months
- *Clinical Education course* – Successful completion of a formal clinical education course. Education courses must be approved prospectively by the registrar's academic supervisor, employer organisation and ACRRM.
- *Academic Practice project* – a substantial piece of technical work which addresses areas of research or teaching priority in the local context.

9.1 Academic practice supervisor feedback reports

An Academic Supervisor report is required to be submitted by the candidate with the project proposal and with the final written work for the project. The supervisor report is initiated by the candidate. The candidate completes their section first and then the supervisor.

The Clinical Supervisor will continue to submit 6 monthly supervisor reports as required during Primary Rural and Remote Training.

9.2 Academic practice project

The Academic Practice project is a summative task which must be completed satisfactorily in order to pass the advanced specialised training in Academic Practice.

Candidates are required to enrol in the AST project at the beginning of the AST year. Enrolments are submitted at http://www.acrrm.org.au/training-towards-fellowship/reporting-and-assessments/dates-and-enrolment

The project must:

- be original work done by the registrar
- address key learning objectives from the Academic Practice curriculum;
- have gained support/approval from the employer, supervisor, medical educator and ACRRM
- have gained ethics approval or written confirmation from the Censor in Chief that it is not required (see National Statement on Ethical Conduct in Human Research),
- demonstrate clear consideration of adult learning principles;
- demonstrate the registrar's in depth understanding of the field chosen,
- include an evaluation of any teaching and learning intervention.

Options for the project include but are not limited to:

- development of a teaching resource e.g. clinical simulation training, curriculum resource;
- completion of a rural clinical medicine research project relevant to the organisation and/or community in which the registrar is placed;
- development and initial evaluation of an assessment task;
- development of an interactive computer learning activity and submitted to ACRRM or another accredited medical education organisation for peer review.

Completed projects must include submission of a piece of assessable written work of approximately 4000–5000 words in length. The academic standard expected for a completed project is at or near Masters Level.

The written submission must include:

- the projects aim/question
- the projects value or importance
- that appropriate permissions were gained
- a critique of the relevant literature
- the methodology used in the project
- interpretation of results
- a discussion of major findings
- an evaluation of success
- a sound conclusion and
- recommendations for further work.

The completed project must be submitted to ACRRM for assessment and will be graded on a pass/fail basis. If a project is graded as a fail the candidate is able to make improvements and resubmit for regrading. This is recorded as a second attempt. Candidates who do not receive a pass grade after three attempts are reviewed to determine if they are permitted to make a fourth attempt.

Candidates are strongly encouraged to share their project through:

- publication in a peer-reviewed journal
- presentation in the workplace or training organisation as appropriate or
- oral presentation or poster at a conference.

An AST Project Guide, AST Project Enrolment form and Academic Supervisor report form can be found at http://www.acrrm.org.au/training-towards-fellowship/reporting-and-assessments/assessment-types/ast-assessment

10. Potential articulation

There are several university programs that offer academic support and remote academic content aligned to the Academic Practice AST curriculum. Candidates are encouraged to consider undertaking one of the following distance education programs or equivalent at the same time as working in a Population Health AST post.

Possible courses include any Master of Public Health (MPH) programmes, particularly those incorporating a research component, and a range of other options, such as:

- Masters of Clinical Education by Flinders University http://www.flinders.edu.au/courses/rules/postgrad/mce/
- Masters of Rural and Remote Medicine by James Cook University
- https://www.jcu.edu.au/courses-and-study/courses/master-of-rural-and-remote-medicine
- Graduate Diploma of Rural and Remote Medicine by James Cook University https://www.jcu.edu.au/courses-and-study/courses/graduate-diploma-of-rural-and-remote-medicine
- Masters of Health Professional Education by James Cook University https://www.jcu.edu.au/courses-and-study/courses/master-of-health-professional-education
- Masters of Clinical Leadership by University of Tasmania http://www.utas.edu.au/courses/hsi/courses/m7m-master-of-clinical-leadership
- Masters of Health Professional Education by Monash University https://www.monash.edu.au/study/coursefinder/course/3860/

11. Learning resources

Recommended texts and other resources

- Alguire P, Dewitt D, Pinsky L, Ferenchick G, editors. Teaching in your office: a guide to instructing medical Students and Residents. 2nd ed. Philadelphia: ACP Press, American College of Physicians; 2008.
- Cantillon P. and Wood D. ABC of Learning and Teaching in Medicine (ABC Series) 2nd ed. BMJ Books, Wiley and Blackwell, 2010
- Creswell J. Research design: qualitative and quantitative approaches: Thousand Oaks: Sage; 1994.
- Dent J. and Harden R. A Practical Guide for Medical Teachers 4th ed. London: Elsevier Churchill Livingstone. 2013
- Page G, Spike N, Wellard B, Rowe M, Campbell S. The Bridging Project: Competencies Comprising" Doctor as Educator".
- White F. Primary health care and public health: foundations of universal health systems. *Medical Principles and Practice.* 2015; 24:103-116

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