

### NATIONAL WORKPLACE IMPLEMENTATION GUIDELINES FOR THE AUSTRALIAN CURRICULUM FRAMEWORK FOR JUNIOR DOCTORS

### **INTRODUCTION**

Junior doctors in their first and second years of training (PGY1 and PGY2) provide a valuable service to the community in their role as service providers in healthcare. In addition they seek training, both to fulfill their healthcare roles and to become accredited with medical colleges as medical specialists and GPs of the future. The provision of service and the undertaking of clinical training are therefore interwoven.

The Australian Curriculum Framework (ACF) was developed through an MTRP-funded project in 2006. It was launched at the prevocational forum in Adelaide 2006, and since then has been implemented to varying degrees throughout Australia. The ACF has been developed to identify essential knowledge, skills and behaviours at this early level of post graduate training and to assist the junior doctors, their medical educators/supervisors and the institutions responsible for their education and training.

### PURPOSE OF THE NATIONAL IMPLEMENTATION GUIDELINES

The purpose of the National Implementation Guidelines is to raise awareness of the ACF, promote its value to stakeholders and to provide background guidelines and practical examples as to how the ACF may be implemented in your institution. The guidelines have been developed to assist junior doctors, supervisors and institutions in the implementation of the ACF. The document includes a general description of activities along with suggested examples for individual audiences. These have been identified as:

- 1. Junior Medical Officers (e.g. PGY1/PGY2/IMG)
- 2. Medical Educators(e.g. MEO/DCT/Deans of Medical Schools/Colleges)
- 3. Supervisors (e.g. Registrars and Senior Medical Staff)
- 4. Administrators (e.g. Managers/Chief Medical Officers/Medical Directors/CEOs/Departments of Health)

The ACF will have different applications for the various audiences using the document. The four audiences can and should play a role in actively raising awareness of the ACF both within their own organisations and at a state and national level. The activities suggested in the following tables are examples of ways in which to promote the ACF.

What is the Purpose of the ACF					
JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)		
To provide JMOs with a roadmap of capabilities expected of them by the end of prevocational training as the basis for safe independent practice and further progression through College programs	Provides Medical Educators with a map of agreed goals for JMO education (capabilities to be achieved) when designing and implementing "local" educational programs within diverse Facility/Facilities across the nation	<ul> <li>Provides Clinical Supervisors with guidelines for identifying, exploring and providing JMO learning opportunities within their specific units/departments.</li> </ul>	Provides Administrators with guidelines for JMO education that underpin quality patient care.		

	How can you raise awareness of the ACF				
JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)		
<ul> <li>Encourage and support involvement of JMO peers in the ACF implementation process</li> <li>Participate in regular review of ACF outcomes at local sites.</li> <li>Encourage medical students under JMO supervision to use the ACF to help guide their clinical terms</li> <li>Use the ACF to discuss learning needs with Term Supervisors at the start of terms</li> <li>Request that Term Supervisors refer to the ACF when providing mid-term appraisal and end of term assessments</li> <li>Discuss and review self reflective Portfolios at the start of each term to identify ACF capabilities achieved to date, and those hoped to be achieved in the coming term</li> </ul>	<ul> <li>Ensure ACF documentation is distributed to all Medical Educators across the Facility/Facilities</li> <li>Ensure that documentation relating to the ACF is distributed to medical students prior to graduation and received at JMO orientation. E.g. MEO/DCT presentation at clinical schools to final year medical students to raise awareness</li> <li>Discuss goals of the ACF and merits of using the ACF as a self-reflective guide to progressive acquisition of knowledge and skills during prevocational training and beyond. E.g. Include as an activity in orientation programs, provide regular opportunities in the Facility Education Programs for JMOs to discuss their experiences in relation to attainment of ACF Capabilities from their rotations</li> <li>Engage individually with all Clinical Supervisors across the Facility/Facilities to:         <ul> <li>Highlight the relevance of the ACF to prevocational training with implications for progressive acquisition of competencies required during vocational College training.</li> <li>Assist Clinical Supervisors with development of Term Descriptions based on a "Model Format" Term Description (see example) that allows links between ACF-recommended capabilities and JMO learning opportunities specific to a rotation within the Facility/Facilities to be identified.</li> </ul> </li> <li>ACF Presentation by the DCT/MEO at a Grand Round.</li> <li>Place ACF Posters in the JMO lounge/educational areas.</li> <li>CPMEC newsletters emailed to all supervisors and junior doctors</li> </ul>	<ul> <li>Engage with Medical Educators (e.g. MEOs and DCTs) and colleagues at Unit meetings to familiarise themselves with the ACF and its relevance to JMO training within their Term.</li> <li>Engage with Medical Educators (e.g. MEOs and DCTs) to develop and evaluate Term Descriptions for every term which identify the ACF capabilities which will be achieved on the specific Term</li> <li>Include the ACF and discussion about its implementation in unit meetings to increase awareness and implementation</li> </ul>	<ul> <li>Provide Medical Educators         (e.g. MEO and DCT) with         opportunities to discuss         the ACF with clinicians and         promote its adoption         throughout the         organisation</li> <li>Ensure that all Clinical         Supervisors have attended         briefing sessions with         educationalists regarding         implementation of the ACF</li> </ul>		

With the publication of the ACF came the realisation of the formal training and education component that is required in the prevocational years. It is hoped that this guide will assist with the balance of service provision and training through the methods outlined below.

	How do you integrate Service and Training				
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<ul> <li>JMOs to develop skills to balance service delivery and participation in ongoing learning opportunities (formal, experiential and self-directed).</li> <li>Identify clashes in timetables that effect the ability to participate in educational opportunities and discuss these with Term Supervisors</li> </ul>	<ul> <li>Ensure timely distribution of education strategies and schedules to allow JMOs to time-manage their participation in learning opportunities/planned teaching sessions.</li> <li>Encourage use of quarantined time for teaching (formal and informal) and monitor attendance at education sessions</li> <li>Provide education opportunities at a variety of times throughout the day and night to cater to varying shifts</li> </ul>	<ul> <li>Ensure provision of learning opportunities for JMOs that match Term Descriptions.</li> <li>Ensure all staff within clinical units understand the importance of quarantined time to allow JMO attendance at teaching sessions.</li> <li>Ensure a balance of clinical exposure exists within terms (eg, outpatient /emergency setting opportunities) that serves to maximise ACF relevant learning opportunities for JMOs.</li> </ul>	<ul> <li>Facilitate a mix of term experiences for JMOs across the Facility/Facilities that balance service provision with training.</li> <li>Explore opportunities for establishment of new terms that could accommodate JMO training to address unmet health care needs across the Facility/Facilities. This could include review of casemix data and discussions with heads of departments re capacity building.</li> <li>Continuously review JMO rostering/overtime hours and adequacy of senior staffing levels within units to ensure an appropriate balance is met between service and training for JMOs on their respective rotations.</li> <li>Relate JMO learning opportunities to fulfilment of requirements for accreditation of hospitals by Postgraduate medical councils.</li> <li>Acknowledge commitment to JMO education by ensuring that this is a clear component of Clinical Supervisors job descriptions and discussion of which is included in their annual appraisals.</li> <li>Facilitate provision of protected teaching time by reviewing data provided by the MEO and DCT in regards to JMO attendance at education sessions.</li> <li>Ensure that time devoted by Clinical Supervisors to delivery of ACF teaching is appropriately recognised</li> </ul>		

### USING THE ACF CONTENT

The ACF for junior doctors lists a range of domains for development, ranging from medical knowledge, attainment of skills, clinical management, communication and professionalism. The framework is provided to assist with the process of developing a direction for learning in the workplace.

Specific term rotations will have an emphasis on different knowledge, skills and abilities. Each rotation during the year will highlight certain aspects of the ACF, providing a focus for both teaching by clinical instructors and learning by junior doctors. It is clear that even with the best-designed rotations, not all skills and competencies listed in the ACF will be covered with certainty. It is recommended that medical educators and junior doctors identify clear learning objectives (eg management of chest pain, suturing of wounds etc) to optimise opportunities in each term.

Some terms will lend themselves to obtaining certain capabilities more than others. For example, paediatric-specific capabilities are most likely to be acquired during paediatric terms. Some terms such as emergency are likely to expose junior doctors to many capabilities and skills, including the professional capabilities, and can be used to consolidate junior doctor learning and provide unique learning opportunities. Likewise it does not mean if there is an area of clinical practice that is not mentioned in the ACF but which is currently taught, that this should be removed from the term.

Junior doctors and their supervisors should use the ACF to guide the individual learning plan, as well as the focus for formal teaching sessions. This is especially the case with the advanced capabilities which may not be acquired until PGY2 or beyond.

The following are suggested ways of using the content to provide appropriate focus for an individual term.

	What is the appropriate focus for specific Terms?					
JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)			
<ul> <li>JMOs to identify their learning needs from the ACF for each specific term, including means by which these needs can be met, eg, formal programs, experiential or self-directed.</li> <li>Compare JMO-identified learning needs for a specific term with those identified in the Term Descriptions</li> </ul>	<ul> <li>Assist Term Supervisors in identifying ACF-recommended capabilities that can be addressed by learning opportunities for their specific terms.</li> </ul>	<ul> <li>Reflect on the case-mix and learning opportunities for JMOs on their unit against desired ACF capabilities when preparing/updating Term Descriptions</li> <li>Include discussions of the Term Descriptions and self reflective Portfolios with the JMOs at mid and end of term to ensure that their experiences are accurately reflected within the documentation</li> <li>Review self reflective portfolio at orientation to identify level of knowledge and skills acquired to date</li> </ul>	Review the clinical focus of specific JMO rotations across the Facility/Facilities against the ACF topic areas to determine their suitability for JMO training			

In order to maximise the learning outcomes for junior doctors, reference to the ACF in term descriptions are encouraged. Junior doctors working in different units in different hospitals will have different clinical and learning experiences. Given the fluidity of the junior doctor cohort and desire for flexibility and movement between hospitals, states and even countries, junior doctors can use the term descriptions to tailor their learning and progression through the early postgraduate years. Term descriptions formulated to synchronise with the ACF will be helpful in identifying strengths and weaknesses in any individual training program.

Facilities that clearly promote their training opportunities are likely to be seen as employers of choice. Suggestions for incorporating into term descriptions are given:

	How can you incorporate the ACF into Term Descriptions?				
JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)		
<ul> <li>Use the Term         Description as a guide         to identify how ACF         capabilities may be         acquired.</li> <li>Use the Term         Descriptions as the         basis for discussion         with Supervisors about         ACF capabilities met by         mid/end of terms.</li> <li>Assist Term Supervisors         by identifying areas of         the ACF achieved         during a term which are         not specifically         mentioned in Term         Description</li> </ul>	<ul> <li>Engage Clinical Supervisors individually in the preparation/annual review of Term Descriptions. Use sample Term Descriptions to facilitate the development of locally specific Term Descriptions by the Term Supervisors</li> <li>Ensure that gaps in Term Descriptions for core (Emergency medicine, surgery, medicine) rotations (where there are core rotations required) across a Facility/Facilities are closed by provision of learning resources/formal teaching sessions to all JMOs where gaps exist.</li> <li>Ensure that actual experiences on a rotation match the Term Description, i.e. audit of Term Descriptions as mapped to the ACF, interview JMOs to see if their experience is reflected accurately within the Term Descriptions</li> <li>Ensure Term Descriptions are provided to JMOs prior to commencement of every term including Relief Terms.</li> </ul>	<ul> <li>Use the Term Description as the template for Feedback at mid-term appraisal and end-of-term assessment to determine whether ACF-directed capabilities are met</li> <li>Ensure Term Descriptions identify a nominated Supervisor (s) with responsibility for appraisal/end-of-term assessment.</li> <li>Discuss term description with the JMO when they commence to ensure it meets their learning needs in regards to the ACF.</li> </ul>	<ul> <li>Review staffing within         Units/Hospitals and enhance         staffing levels as necessary to         ensure JMO supervision is         adequate and that learning         opportunities described in the         Term Descriptions can be met.</li> <li>Ensure that Term Supervisors         review the learning         opportunities provided by their         specific term and map to the         ACF capabilities.</li> </ul>		

### USING THE ACF IN TEACHING AND LEARNING OPPORTUNITIES

The ACF will be used to direct the teaching and learning of junior doctors. This must be a co-ordinated process and involve all parties (including junior doctors, DCTs, MEOs, supervisors, administrators etc). Some specific principles are addressed further below. Junior doctors should be familiar with all of these in light of their recent medical school training. Those who have trained outside of Australia, or who are returning to the complete their training after a hiatus may require additional support.

As a first step, medical educators should familiarise themselves with the learning areas of clinical management, communication and professionalism. The design of the ACF reflects the learning domains of knowledge, skills and behaviours. Identifying how these will develop within each learning topic will be helpful for junior doctors.

The ACF is based on the Adult Learning Principles of:

- Respect for prior learning and experience
- A requirement for the provision of clear learning outcomes
- Regular feedback on performance
- The need to provide opportunities for reflection

The use of difference teaching modalities will depend on local availability and experience. Many centres have developed learning modules around specific topics. In addition, educational programs have been developed to cover key areas of the ACF around patient safety and quality healthcare. Junior doctors will be looking for formal learning opportunities that address potential gaps in their training as guided by the ACF. This is especially relevant for certain areas that may not have been addressed at medical school e.g. Indigenous Health. These areas may also be areas of relative inexperience for clinical supervisors who also have not received formal training. Formal learning may also be useful to help consolidate or standardise learning opportunities for junior doctors, especially those working in several different hospitals throughout the prevocational period.

The ACF can be used as a Self Reflection tool. Most recent Australian medical graduates will be familiar with this term and the underlying principles. Junior doctors are fully aware of the need to be able to direct their own learning for life i.e. through medical school, prevocational and vocational training and beyond.

Junior doctors often have significant expertise with electronic learning and use of information and communication technology. The ACF can and should be transposed onto electronic platforms to help facilitate and optimise junior doctor learning. Acceptance of this format may in fact be challenging for those supervising or directing junior doctor education and training. Providing junior doctors with access to information and communication technology in the workplace is essential to maximise the informal learning whilst at work or whilst on rotation to another institution.

Another aspect of the ACF which requires implementation is the acquisition of specific clinical skills. The skills list included in the ACF is a useful guide for junior doctors (and medical students) as well as more senior colleagues- especially when defining scope of practice. Many junior doctors are uncertain about expectations of their level of skill, especially when first working after graduating medical school. As noted on the ACF itself, the skills list is a guide and not an exhaustive list. Skill acquisition can also be enhanced through the use of simulation centres.

	How can the ACF be used to promote the principles of Teaching and Learning and facilitate learning?				
Guideline	JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)	
Principles of Teaching and Learning	Participate in Teaching on the Run modules and other courses promoting teaching and learning skills during the two year prevocational training period.	<ul> <li>Conduct Teaching on the Run and other courses related to teaching and learning skills for all JMOs and Term Supervisors, to demonstrate how teaching/learning principles can be applied.</li> <li>Use the ACF within the Teaching and Learning modules to promote awareness and relevance to JMO learning</li> </ul>	Encourage peers/registrars to participate in Teaching on the Run modules and other courses designed to promote teaching skills.	<ul> <li>Provide administrative support to coordinate regular Teaching On The Run programs and other courses that teach principles of teaching and learning</li> <li>Support JMO participation in these learning activities when JMOs act as module Facilitators (e.g., by release during paid time)</li> </ul>	
Self-Directed Learning	<ul> <li>Demonstrate a commitment to self-directed learning by maintaining a Portfolio that identifies where and how ACF-recommended capabilities have been progressively met.</li> <li>Refer to Portfolios when seeking feedback from Educationalist/Clinical Supervisors.</li> </ul>	<ul> <li>Promote self-directed learning by regularly reviewing JMO Portfolios/data entry into Term Descriptions.</li> <li>Encourage JMOs to review their own portfolios with Term Supervisors during the rotation</li> <li>Provide opportunities for self directed learning e.g. electronic forums, online learning programs, reference lists etc</li> <li>Promote practice of effective clinical handover (e.g., use of the ISBAR template —Identification, Situation, Background, Assessment and Recommendations)</li> </ul>	<ul> <li>Provide guidance at mid/end - of -term to JMOs on self-directed learning opportunities as well as the progress towards addressing ACF capabilities.</li> <li>Provide ACF relevant resources for self directed learning relevant to the Term</li> <li>Review the JMO self reflective Portfolio to identify self directed learning acquired during the rotation</li> </ul>	Ensure that JMOs' have access to learning materials including online resources (e.g. at clinical work stations, libraries etc)	

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Electronic Learning	<ul> <li>maximise learning by utilising all resources available at a Facility/Facilities, including electronic resources e.g. JMOs may choose to maintain their portfolios online</li> </ul>	<ul> <li>Ensure electronic learning resources/on-line self-assessment tools are made available across Facility/Facilities.</li> </ul>	<ul> <li>Record sources of relevant on-line learning resources in the Term Descriptions.</li> </ul>	<ul> <li>Ensure access to electronic learning resources for JMOs across all settings and facilities</li> </ul>
Formal Learning	<ul> <li>Discuss with Educators the ACF capabilities that a formal education session relates to i.e. encourage the link to the ACF</li> <li>Identify topics for Formal Education sessions in order to cover topics from the ACF that are not easily experienced within the workplace e.g. population health, tropical medicine</li> <li>Ensure attendance at formal learning sessions.</li> <li>Provide feedback on formal education sessions including content, topics etc</li> </ul>	<ul> <li>Ensure that formal teaching sessions are planned well in advance and repeated where necessary to allow all JMOs to attend.</li> <li>Ensure that formal teaching sessions have been considered in the context of the ACF</li> <li>Utilise Information and Communication technology to ensure delivery of formal teaching resources across a number of Facilities where appropriate.</li> <li>Provide feedback to presenters from JMOs on the quality/content of formal learning sessions and their relevance to the ACF</li> </ul>	<ul> <li>Acknowledge the importance of and support formal teaching sessions by informing all health professional staff attached to clinical units that JMO attendance at these sessions is compulsory.</li> <li>Encourage peers to participate in presentation of formal teaching sessions.         Encourage the presenters to link their presentation objectives to the ACF in order to promote relevance to JMOs     </li> <li>Review presentations based on feedback received from JMOs</li> </ul>	<ul> <li>Facilitate formal learning by ensuring the appropriate Information and communication technology infrastructure is available at the Facility/Facilities</li> <li>Support formal learning by promoting protected teaching time (for both JMOs and supervisors)</li> </ul>

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Skill Acquisition	<ul> <li>At the start of each term, identify areas/procedures from the ACF skills and procedures list that are likely to be acquired</li> <li>Identify any skills or procedures that require further training or remediation Record ACF and other skills obtained/achieved during terms in portfolios</li> </ul>	Facilitate acquisition of skills not commonly experienced by JMOs in the workplace by organising formal skills training sessions e.g., teambased crisis management using simulation modalities, intercostal catheterisation using pig carcasses, etc.	Provide     progressive skills     training as     indicated under     the ACF Skills and     Procedures and     identified in the     Term Description	<ul> <li>Support development of skills laboratories to help JMOs meet requirements as prescribed by the ACF.</li> <li>Ensure that clinical skills training resources available at the Facility/Facilities are reviewed, to ensure that they are adequate to address clinical skill training requirements.</li> </ul>

### MAPPING

Mapping describes the process of identifying which skills/capabilities should be obtained in a particular term or educational experience. A map will vary between terms and facilities, but it is expected there will be some generalities for certain terms. The purpose of mapping is to ensure junior doctors are able to meet all their learning objectives and as well as capability and skills development listed in the ACF. It also ensures hospitals are exposing junior doctors to the capabilities and skills they require.

Mapping can be done via paper based questionnaires or more sophisticated online tools have been developed by some facilities. An example of a mapping tool is included in Appendix A. Mapping can be done by any of the four audiences and examples of this are given in the table below. Current formal education programs can be mapped to the ACF. Mapping of programs can take into account orientation programs, intern and JMO education activities, special courses, term feedback and a range of non-clinical professional development programs. This is likely to be completed by directors of clinical training, medical education officers or clinical supervisors. Mapping an individual term through the ACF is a useful exercise to optimise development of knowledge, skills and behaviours of relevance to the 3 learning areas of clinical management, communication and professionalism. Junior doctors may be asked to provide feedback on the term educational opportunities they actually encountered including clinical and non clinical experiences. This information is extremely useful in determining what a junior doctor actually experiences as opposed to what a supervisor or director may expect a junior doctor to experience

Mapping may be a useful exercise to assist self-learning, by allowing JMOs to self assess their confidence in ACF capabilities and identifying gaps or learning needs.

The information obtained from mapping can be used in a number of ways. JMOs can use the mapping information to determine which terms they may need to ensure adequate exposure to capabilities and skills, or to determine specific individual learning objectives. Identification of gaps in the ACF capabilities being provided by a facility may result in a:

- · change to formal education programs,
- change in combinations of terms e.g. allocations,
- change in individual terms change of focus, or
- identification of additional learning opportunities to meet needs e.g. new units.

	What is Mapping, how can you map and what can you do with the information?				
Guideline	JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)	
What is mapping?	Identification of learning/training opportunities within rotations/terms that match learning capabilities considered necessary for independent practice or more advanced training.	The identification of the ACF capabilities which can be taught/learnt at the Facility/Facilities on various rotations.	Identification of learning/training opportunities within rotations/terms that match learning capabilities considered necessary for independent practice or more advanced training	The identification of the ACF capabilities which can be taught/learnt at the Facility/Facilities on various rotations.	
How do you map (tools)?	<ul> <li>Compare Term Descriptions to own portfolio to confirm that learning expectations for rotations are achieved</li> <li>Use a self- reflective Portfolio to document progression of achievement of ACF capabilities during progressive rotations</li> </ul>	Regular review of data (online/paper-based) from Term Descriptions/JMO self-reflective Portfolios/JMO training satisfaction questionnaires against ACF-guidelines.	Use the Term Descriptions to confirm (at least on an annual basis) that term-specific training opportunities linked to ACF-capabilities are being delivered	<ul> <li>Ensure the appropriate infrastructure support (personnel, space, and Information and communication technology, and equipment) required to provide learning opportunities is in place to meet ACF-recommended capabilities.</li> <li>Consultation/questionnaire feedback from educationalists/clinical supervisors/JMOs regarding satisfaction with existing or new terms and the impact, if any, of allocated rotations/rostering/hours/rel ief terms.</li> </ul>	

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What can you map?	<ul> <li>Recording the skills, procedures and capabilities you have achieved in each term enables a "map" of learning opportunities to be developed. These opportunities can include; formal education programs, on-line modules, unit audit meetings, CME meetings and grand rounds.</li> <li>Cross-referencing Term Descriptions to JMO portfolios can also determine which skills, procedures and capabilities are not achieved in different rotations.</li> </ul>	<ul> <li>The essential themes underlining formal teaching programs that address ACF-recommended capabilities.</li> <li>Term education opportunities as per Term Descriptions that are met/unmet.</li> <li>Strengths/gaps in JMO learning opportunities at hospital/community sites across a Facility/Facilities</li> </ul>	Opportunities for clinical experience/skills & procedural training on a rotation with reference to ACF-recommended capabilities	<ul> <li>Formal education programs, term education opportunities, clinical experiences and non-clinical experiences</li> <li>Resources available and resources needed for delivery of formal education programs, term education, clinical and non-clinical experience relevant to the ACF at the Facility/Facilities</li> </ul>

Guideline	JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)
What can you do with the information?	<ul> <li>Identification of individual JMO's learning needs/ gaps in experience gained compared with ACF capabilities and methods to address gaps</li> <li>JMOs can link the information gained from mapping to:         <ul> <li>Requirements for unconditional registration by PMCs/Medical Boards</li> <li>Learning required for career paths</li> <li>Incorporate the information in CVs for applications to post-graduate College training/other positions and provide this information to nominated referees</li> <li>Self-reflect on learning areas/skills requiring remediation/up-skilling</li> <li>Respond to identified gaps by:</li></ul></li></ul>	<ul> <li>Identification of individual's learning needs/ gaps in experience gained compared with ACF capabilities and methods to address gaps</li> <li>Ensure that no gaps exist between prevocational training provided and ACF-recommended capabilities by making appropriate changes to formal education programs.</li> <li>Educate Term Supervisors regarding the experiences of the JMOs to ensure that Term Descriptions are reflective of the reality of their experiences</li> <li>Advise JMOs on how their prevocational training addresses their individual career aspirations and ensure that no gaps exist in the educational programs provided that might bar career progression.</li> <li>Review existing terms and opportunities to create new terms /split terms to provide additional learning opportunities to meet needs either across the Facility/Facilities or at specific locations within a Facility/Facilities (e.g. community-based rotations/imaging/pathology)</li> <li>Update educational modules/website resources</li> <li>Provide interactive learning opportunities via skills laboratories, teaching modules (e.g., TOTR, involvement in governance such as a team member on root cause analyses).</li> </ul>	<ul> <li>Acknowledge JMOs who perform above levels expected as well as underperform.</li> <li>Change the focus of clinical experience for JMOs in individual terms to address ACF-recommended capabilities.</li> <li>Use feedback gained from JMOs at mid/end of term according to Term Descriptions/ Portfolios to positively critique performance and provide advice on areas of further learning required/opportunities.</li> <li>Highlight identified gaps between experience gained and ACF capabilities to Medical Educators.</li> <li>Explore inter-professional learning opportunities for JMOs within a rotation</li> </ul>	<ul> <li>Identification of individual's learning needs/ gaps in experience gained compared with ACF capabilities and methods to address gaps</li> <li>Provide resources/Informatio n and communication technology packages to meet individual JMO needs.</li> <li>Allocate JMOs to combinations of rotations across the Facility/Facilities and it's secondments that take into account the experience required for a JMO to achieve the ACF-recommended capabilities as well as career goals.</li> </ul>

#### RESOURCES

Few additional resources are required to address the components of the ACF. Facilities can begin to implement the ACF without specific funding. Simply ensuring all graduating medical students and interns are given a copy of the ACF is a good start. Junior doctors are extremely resourceful and adept at self-directed learning, and will start implementing this once they know what is expected. Mapping exercises can be incorporated relatively easily into mid or end-of-term assessment processes and use of online resources can assist with this. Project funding may be useful for some facilities to progress specific aspects of the ACF, and junior doctors should be included in these projects.

Clinical supervisors, medical educators, on-line resources, structured programs and libraries are available in most training centres but not necessarily on all term rotations. When using the ACF, it is helpful to align specific term resources with learning objectives. For example, ALS training may have the greatest impact for those in ED and ICU terms. Orientation programs should be used to identify available resources and assist junior doctors with gaining access and maintaining use of these facilities. The recent trend towards grouping of hospitals into training consortia or networks has enabled wider access to simulation centres.

The following examples are given regarding resources:

JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)
	What is required in	terms of resources?	
<ul> <li>JMOs can reflect on their use of current learning resources and provide feedback on the value and if/how they might be improved to assist in achieving ACF capabilities.</li> <li>A compendium of resources that have been used to achieve ACF capabilities in a particular facility eg, website, skills laboratories, formal programs, on-line modules can be compiled with reference to the Term Descriptions and JMO Portfolios.</li> </ul>	<ul> <li>Ensure equitable access to learning resources for all JMOs across Facility/Facilities.</li> <li>Encourage JMO participation in research by identifying projects across Facility/Facilities through engagement with clinical supervisors.</li> <li>Ensure a brief summary is provided by presenters of formal education sessions that indicate how the content of those sessions addresses ACF-recommended capabilities.</li> <li>Engage widely across Facility/Facilities to explore development of innovative education tools and implementation of the ACF.</li> <li>Explore interprofessional opportunities for JMO learning that highlight team approach.</li> </ul>	<ul> <li>Use the Term Description and Self Reflective portfolios as a learning resource guide for term-specific JMO learning opportunities on rotations.</li> <li>Ensure that suggested reading/website sources given in theTerm Descriptions are current and relevant.</li> <li>Ensure that Unit Registrars provide an ACF overview during orientation of JMOs at the commencement of every rotation that includes "Implementation Guidelines for JMOs"</li> <li>Ensure adequate learning resources are available and utilised by JMOs to achieve ACF capabilities</li> </ul>	<ul> <li>Ensure adequate IT infrastructure is in place to meet delivery of ACF recommendations across the Facility/Facilities (e.g. via tele-link if appropriate)</li> <li>Ensure adequate administrative support is provided to educationalists (e.g. MEOs and DCTs) during the initial stages of implementation of the ACF.</li> <li>Ensure adequate space/personnel are available to conduct procedural skills training in skills centres within one or more facilities across a jurisdiction/network.</li> </ul>

### **ROLE OF ADMINISTRATION**

Training institutions understand that optimal patient care and minimisation of adverse events is most likely to be achieved in an active learning environment. Use of the ACF will support risk minimisation programs, consumer satisfaction objectives, as well as promoting medical workforce recruitment and retention.

The cost benefit analysis for jurisdictions and institutions indicates that expectations of service without the provision of training are insufficient. Participation in education programs involving the ACF may enhance and support institutional applications for re-accreditation. In addition, the community's expectation that teaching hospitals participate in pre-vocational training can be fulfilled through demonstrated involvement with ACF implementation.

Medical students and junior doctors will seek out facilities that support training and education. Facilities that promote the ACF and assist in its implementation are likely to become employers of choice and will attract enthusiastic junior doctors who are keen to further progress their own training. This in turn can lead to improvements in patient safety and outcomes, with a well-trained and motivated workforce practicing best-medicine.

It is likely that facilities seeking accreditation for prevocational doctors will need to demonstrate some implementation of the ACF, as part of the training and education requirements for these positions. Junior doctors are usually involved in accreditation visits, either as surveyors or when interviewed as part of an accreditation visit.

#### **ROLE OF SUPERVISORS**

Many clinical supervisors struggle to fulfill their roles as clinical teachers. This is due to a combination of several factors, including lack of recognition of the importance and support of teaching by many hospital administrators, expectations that junior medical officers are present for service delivery only and lack of protected teaching time for both supervisor and trainee. In addition, many supervisors have not had formal training in education.

The ACF is designed to assist junior doctors in achieving various skills and capabilities during their Prevocational years. Supervisors should structure term rotations to help achieve these objectives and facilitate training in the work environment. In practical terms, being aware of the ACF, reviewing the three learning areas, identifying the learning topics and understanding the range of competencies or capabilities listed in the ACF is an important starting point.

Supervisor and clinician engagement is vital for ensuring the successful implementation of the ACF in the facility. Engagement of the junior doctors is also vital. Regular reference to the ACF at teaching sessions, grand round etc will further invite participation and planning around implementation of the ACF. Of note, it is likely that this is an iterative process, with refinement of the ACF in the future, as well as the ability for a facility to modify its implementation process.

### ASSESSMENT (TO BE DEVELOPED IN CONJUNCTION WITH THE ASSESSMENT WORKING GROUP)

Assessment is a crucial contributor to learning. The ACF is useful for identifying appropriate areas for assessment.

Junior doctors (JMOs) require regular (formative) feedback on their performance, so that their strengths, and areas for improvement, can be identified, and their progress throughout the year can be supported. End-of-term assessment is a formal (summative) assessment process which contributes information to the registration requirements for PGY1 doctors.

Assessment methodology must ensure that there is adequate reliability and validity. Observation of the JMO in the workplace on multiple occasions, and feedback from multiple sources, are essential to ensure adequate reliability and validity of assessments.

JMOs should be encouraged to reflect on their own progress towards achieving the ACF capabilities. This reflection on progress in learning is important for identifying areas requiring further training, and should be discussed with medical educators and supervisors to assist with development of education programs or to address perceived deficiencies. All JMOs should be encouraged to seek out opportunities to reflect upon their progress with their supervisors and mentors, to ensure they have addressed the capabilities adequately.

Mid Term Appraisal and End-of-Term Assessments should be undertaken formally, and are important opportunities to identify progress towards the capabilities of the ACF. Whilst these assessments already exist, they are often *ad hoc* and not evidence-based (e.g. a consultant who has never worked with the junior doctor in question may be required to complete the assessment). This is obviously unsatisfactory for all concerned.

It is expected that the ACF will encourage a more robust and transparent process for term assessments, enabling specific feedback to be provided to the junior doctor about the capabilities that should have been achieved in a particular term. These assessments should be undertaken by a supervisor who has directly observed the junior doctor in clinical activities. The supervisor should obtain input into the assessment from a range of members of the clinical team in which the junior doctor works. These processes will improve the validity and reliability of the feedback provided.

The early recognition and management of under-performance of junior doctors is of vital importance,. Addressing deficiencies in the learning areas of communication and professionalism are important for career development at this early stage. The ACF may serve as a useful focus to enable discussion around these topics where appropriate. If a JMO is thought to be performing at a lower level than expected, an Improving Performance Action Plan (IPAP) must be developed. The ACF should be used in developing this plan, to help define areas for improvement, and to assist the junior doctor in guiding their progression towards successful completion of a term. Use of the ACF as an objective document is often helpful in these situations, because personality conflicts or tensions can cloud the factors contributing to under-performance.

A working group of the ACF project is currently designing comprehensive guidelines for supervisors and junior doctors. The following table provides a few examples of ways in which the ACF can be used for assessment.

How can the ACF be implemented in regards to Assessment?			
JMOS (PGY1/PGY2/IMG)	Medical Educators (MEO/DCT/Deans of Medical Schools/Colleges)	Clinical Supervisors (Registrars, Senior Medical Staff)	Administrators (Managers/Chief Medical Officers/Medical Directors/CEOs/Dept of Health)
<ul> <li>Upon commencing a new term, JMOs can use the ACF and term descriptions to determine which capabilities are likely to be achieved</li> <li>JMOs can use Portfolios and Term Descriptions to document achievement of ACF capabilities and competency progression in relevant areas/ procedures for each of the terms.</li> <li>JMOs can use the ACF to discuss with the Term Supervisor performance/learning at mid and end of term meetings</li> <li>JMOs can expect that Term Supervisors will refer to the ACF when completing an end of term assessment</li> </ul>	<ul> <li>Assess JMO performance by means of regular engagement with clinical supervisors and review of JMO Portfolios/Term Description data/Progress Review Forms.</li> <li>Ensure assessment of JMOs is linked to assessment of ACF capabilities</li> <li>Engage with Clinical Supervisors individually at mid/end of terms to identify performance strengths and weaknesses.</li> <li>Analyse JMO feedback regarding term orientation/term experience/supervision/teaching/ goals met (paperbased/on-line) at the end of every term.</li> <li>Ensure strategies are in place to manage underperformance and that this is linked to the Assessment process</li> </ul>	<ul> <li>Use Term Descriptions/JMO         Portfolios as the basis for         discussing JMO progress at         mid-/ end-of-term and for         feedback/completion of         Progress Review Forms         required by Medical         Boards/Postgraduate Medical         Councils for unconditional         registration.</li> <li>Provide feedback on         underperformance concerns at         mid-term or earlier to Medical         Educators.</li> </ul>	<ul> <li>Ensure the consistent implementation of Mid and End of Term Appraisal and Assessment processes across the Facility/Facilities for all JMOs</li> <li>Ensure that there are processes in place to identify and remediate JMOs with performance issues</li> </ul>

### POTENTIAL BARRIERS

It is unlikely that all topics in the ACF can be optimally addressed in PGY1 and PGY2. Opportunities for learning revolve around specific rotations. The provision of balanced rotations, maximising opportunities and limiting repetition will be of greatest benefit to junior doctors.

Teaching hospitals have a wide range of policies in relation to teaching in the work environment. Where there is few full-time medical staff on site, there are often less opportunities to address ACF topics in depth. Busy visiting medical staff are often unable to undertake formal teaching because of service commitments and workforce pressures. In addition there is a growing need for dedicated medical educators, able to assist with co-ordination of a system of training in institutions. Senior medical staff and registrars currently form the bulk of supervisors and teachers. Many have had no formal training on how to teach, and may not have the non-clinical support they require including protected time for teaching and administrative support. More supervisors will be needed with our influx of medical graduates. Those in the system now (i.e. our current junior doctors) will need formal skills in teaching as well as support to ensure our future junior doctors are guaranteed the same high quality prevocational teaching and training as we have come to expect.

Some barriers may be secondary to local resources, work practices or cultural. Active management of real and potential barriers will enhance learning opportunities for junior doctors through the ACF.

Traditional rostering of junior doctors reflects the emphasis on service provision expected by most health services. As increasingly there is an understanding and expectation that teaching and training is considered core business for health providers, rosters will need to reflect changes towards protected teaching time, regular formal teaching sessions, skills lab use etc. Flexible approaches to ward cover and service provision, as well as education of other staff will be needed to ensure successful implementation of the ACF.

Successful implementation will require efficient co-ordination of processes and resources. DCTs and MEOs are in the best position to facilitate this.