



# The Royal Australian and New Zealand College of Radiologists®

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The Faculty of Clinical Radiology

## **Draft Revised Professional Capabilities for Medical Radiation Practitioner Consultation**

**RANZCR Submission  
May 2019**

### **About the Royal Australian and New Zealand College of Radiologists**

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The Royal Australian and New Zealand College of Radiologists (RANZCR) is the peak body advancing patient care and quality standards in the clinical radiology and radiation oncology sectors. It represents over 4,000 members in Australia and New Zealand.

RANZCR's role is to drive the appropriate, proper and safe use of radiology and radiation oncology medical services. This includes supporting the training, assessment and accreditation of trainees; the maintenance of quality and standards in both specialties; and workforce mapping to ensure we have the specialists available to support the sectors in the future. The Faculty of Clinical Radiology is the bi-national body for setting, promoting and continuously improving the standards of training and practice in diagnostic and interventional radiology for the betterment of the people of Australia and New Zealand.

Clinical radiology relates to the diagnosis or treatment of a patient through the use of medical imaging. Diagnostic imaging uses plain x-ray radiology, computerised tomography (CT), magnetic resonance imaging (MRI), ultrasound and nuclear medicine imaging techniques to obtain images that are interpreted to aid in the diagnosis of disease. Interventional radiologists treat as well as diagnose disease using imaging equipment.

RANZCR welcomes the opportunity to provide feedback on the draft revised professional capabilities for medical radiation practice (the capabilities document).

### **Role of radiologist and role of radiographer**

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RANZCR believes that safe, high quality patient care should be the primary focus for any revisions made to the professional capabilities for medical radiation practice. Within clinical radiology, safe, high quality care is achieved when all members of the medical imaging team work in collaboration. In this model the clinical radiologist is the leader of the team and provides professional supervision and oversight for all aspects of patient care.

As trained medical specialists clinical radiologists are required to integrate their knowledge of clinical medicine, disease processes, imaging procedures and radiological expertise with the individual condition of the patient to provide a specialist opinion. Clinical radiologists are trained to provide professional supervision of the whole clinical radiology service, including the radiography component. They carry the overall responsibility for communicating the findings of the examination to the referring doctor.

Radiographers are highly skilled valued members of the medical imaging team who have undergone appropriate training. Radiographers' technical expertise enables them

to play an essential role in image acquisition and have significant responsibility to support the work of the clinical radiologist. However, radiographers are not trained as medical practitioners and do not study in-depth the nature, management and prognosis of disease nor the capacity of different imaging techniques to demonstrate disease processes. The core training and focus of their role is high diagnostic quality image acquisition and presentation, and assisting patients during imaging and procedures. In addition, they are also entrusted with the responsibility for safe and efficient management of medical radiation equipment and ensuring appropriate quality assurance programs are in place for maintaining equipment, images acquisition and transmission of images for viewing by clinical radiologists.

It is RANZCR's view that some of the changes to the capabilities document expands the scope of practice of radiographers significantly beyond their training into areas of practice that require rigorous undergraduate medical and post-graduate specialist training and expertise. The Medical Radiation Practitioner Board does not provide a rationale in the consultation document as to how or why the proposed changes would enhance patient care in Australia. RANZCR strongly opposes extension of the role of a radiographer to include tasks that require medical training. This position is detailed in our recent position paper *Image Interpretation by Radiographers – Not the Right Solution*<sup>1</sup>.

Role extension has only taken place in one notable country (the UK) which suffers from a chronic shortage of clinical radiologists. That is borne out of a workforce crisis rather than a desire to improve quality of service or patient care<sup>2</sup>. This shortage does not exist in Australia. RANZCR has a strong training program with around 100 new clinical radiologists joining the workforce in Australia every year (growth of some 5% per annum). In regional and rural settings where it is not possible to have a clinical radiologist on site fulltime, it is RANZCR's view that teleradiology should be used to complement and support on-site supervision.

A number of radiographers have re-trained to become clinical radiologists by completing first a medical degree and subsequently, the RANZCR Clinical Radiology Training Program. These individuals have reported that they had the benefit of understanding the technical aspects of image acquisition but had no head start regarding the clinical interpretation of imaging studies compared to other medical graduates. Feedback from these RANZCR members has helped inform this submission.

RANZCR accepts that the delegation of certain tasks undertaken by the medical imaging team may improve efficiencies, but only where it is demonstrated that the radiographer has the relevant skills and competencies and it improves patient care and service delivery. For example, a radiographer is trained to acquire consent for routine imaging procedures and seek input from the radiologist as needed.

Australian patients expect that the person delivering their medical care is appropriately skilled and trained.

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<sup>1</sup> [Image Interpretation by Radiographers - Not the Right Solution Position Statement. RANZCR. 2018.](#)

<sup>2</sup> Hardy M, Johnson L, Sharples R, Boynes S, Irving D. Does radiography advanced practice improve patient outcomes and health service quality? A systematic review. Br J Radiol 2016; 89: 20151066

## Medical Radiation Practitioner Board Jurisdiction

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RANZCR has received legal advice on the statutory function of the Medical Radiation Practitioner Board (MRPB) and its jurisdiction to revise the scope of practice of a medical radiation practitioner (radiographer). The advice received is that under the National Law the MRPB's jurisdiction is limited to a developmental or advisory capacity to the Ministerial Council of the Council of Australian Governments (COAG) and cannot independently make changes to the scope of medical radiation practice.

In this submission RANZCR details our opposition to moves by the MRPB to expand the scope of practice of radiographers via revision to the capabilities document. We are keen to understand how the MRPB will address the concerns raised in this submission. and would like to review the final version of the competency document before it is finalised.

## Requirements outside scope of practice for radiography

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RANZCR contends that a number of core competencies listed in the competency document require medical training and fall outside the training and scope of practice of a radiographer.

### Assessing requests or referrals and suggesting alternatives

A referral or request for imaging is a communication between referring medical practitioner and clinical radiologist. It provides relevant information on the clinical condition of the patient and the medical investigation being sought. The information may include symptoms, medical history and suspected diagnosis as well as previous imaging and pathology or other test results. Clinical radiologists have medical training and clinical experience and therefore understand the explicit and implied information provided by the referrer.

Clinical radiologists often provide guidance to radiographers via protocols and other means to ensure the appropriate imaging technique is used for the required imaging examination. In following these established protocols, radiographers will often proceed autonomously with an imaging examination. Assessing the appropriateness of the referred imaging examination requires medical training and is outside the scope of practice of a radiographer. It is commonly accepted practice when a radiographer is not certain of the clinical appropriateness of an examination, that they consult with the clinical radiologist for advice and direction.

Likewise, advice on alternative imaging or treatment options can only be provided to patients and other members of the healthcare team, including referrers, by a clinical radiologist. A radiographer does not have appropriate medical training and therefore is neither qualified to provide advice on the appropriateness of an examination, nor suggest alternatives.

### Interpreting and communicating findings

A radiology report constitutes a medical opinion by a clinical radiologist providing an expert interpretation of radiological images to the referring practitioner. RANZCR strongly believes that the radiology report cannot be delegated to radiographers or anyone who has not been trained as a medical imaging specialist.

Communicating findings of an imaging examination, however named, in whatever format or setting, to a referrer or other members of the health care team is the equivalent of providing a radiology report and bears significant medico-legal risks.

There is great risk in a radiographer communicating preliminary or interim findings which may vary significantly from the final specialist medical opinion provided by the clinical radiologist. There are significant risks to a patient if a referring practitioner or other members of the healthcare team make treatment decisions based on information that is incomplete, incorrect or lacking clinical context.

A clinical radiologist is trained to examine the whole image and will identify both the obvious and more obscure pathologies, integrate the finding with their knowledge of clinical medicine, disease processes, imaging procedures to provide a diagnosis and information that will assist the referring practitioner decide on the best intervention for the wellbeing of the patient.

If a radiographer notes a serious or time critical abnormality during an imaging test the first line action must always be to communicate this to the supervising clinical radiologist. This will ensure that the preliminary findings and the final radiologist's opinion is not discordant. This ought to be reflected in the competencies document. In a medical emergency, abnormalities should only be communicated directly to the referring practitioner or appropriately delegated health professional who is responsible for the individual patient's care, if a clinical radiologist is not available.

## Other comments

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RANZCR would like to make the following additional comments on the competencies document:

- RANZCR supports the inclusion of cultural competency and cultural safety as importance requirements to delivering modern healthcare.
- RANZCR supports the recognition of digital health systems in the competency document which places new requirements on radiographers managing clinical information digitally.
- Some of the draft competencies lack clarity and are open to wide-ranging interpretation. Such statements require clarification or modification to ensure that there are no unintended consequences from misinterpretation.
- There is no mention in the competency document of the fact that a radiographer works under the professional supervision of a clinical radiologist. Professional supervision is long established practice in the radiology team and carried out via face to face communication or through protocols which have been established within the practice. This is an important aspect of medical radiation practice and should be reflected in the document.
- In the table below RANZCR has recommended rewording several capabilities. In this context 'clinical radiologist' could be substituted with 'clinical radiologist or other imaging specialist supervising the radiology service within their scope of practice'. For example, a cardiologist with cardiac imaging training may supervise cardiac imaging services.

Introduction	RANZCR Comment	
Pg 2	<p><b>Background to medical radiation practice professional capabilities</b></p> <p>Since 2013, there have been technological developments and changes to the scope and role of medical radiation practitioners, in addition to developments in capability frameworks.</p>	<p>This statement is too vague and needs to be clarified. Changes in technology, environment and patient expectation are important to recognise. However such changes do not alter the role, training or scope of practice of a radiographer, nor do they provide justification for extending the role of a radiographer into the scope of practice requiring medical training. RANZCR recommends rewording the statement as follows:</p> <p>Since 2013, there have been technological developments and changes to the <b>environment within which the scope and role of</b> medical radiation practitioners <b>work. in addition to developments in capability frameworks.</b></p>
Pg 3	<p><b>Format of the medical radiation practice professional capabilities</b></p> <p>Domain 1A: Diagnostic radiographer</p> <p>Domain 1B: Nuclear medicine technologist</p> <p>Domain 1C: Radiation therapist</p>	<p>RANZCR supports describing the additional requirements for each of these specific domains of medical radiation practice as per the competency document. However, we do not support any future change for these domains to become additional registration requirements for MRPB registration.</p>
Pg 6	<p><b>Maintenance of professional capability</b></p> <p>The level of professional capability and scope of practice for practitioners are likely to change over time as the profession advances and as new roles emerge in the evolving healthcare environment.</p>	<p>This statement is vague and open to misinterpretation. RANZCR recommends rewording the statement as follows:</p> <p>The <b>level of professional capability and scope areas</b> of practice for practitioners are likely to change over time <b>within the scope of medical radiation practice, as the profession advances and as new roles emerge in the evolving healthcare environment.</b></p>

Key Capability	Enabling components	RANZCR comments
Domain 1: Medical Radiation Practitioner		
3. Understand the different methods of imaging and treatment to determine the most appropriate option.		<p>Determining the most appropriate option for imaging or treating a patient requires medical training, therefore can only be done by a clinical radiologist.<sup>3</sup></p> <p>RANZCR recommends rewording the statement as follows:</p> <p>Understand the different methods of imaging. <del>and treatment to determine the most appropriate option.</del></p>
4. Confirm the procedure according to clinical indicators.	a. Review the patient's/client's clinical history, referral and current medical information to confirm the requested or prescribed procedure is appropriate, drawing on knowledge of other treatment pathways.	<p>Determining if a prescribed procedure is appropriate requires medical training, therefore can only be done by a clinical radiologist.</p> <p>RANZCR recommends rewording the statement as follows:</p> <p>Review the patient's/client's clinical history, referral and current medical information <del>and</del> <b>raise any concerns regarding the appropriateness of the referral or to confirm the appropriateness with the supervising clinical radiologist, is appropriate, drawing on knowledge of other treatment pathways.</b></p>
	b. Determine the appropriate imaging and/or treatment protocols and priorities, which consider the information collected during the interaction with the patient/client and knowledge of imaging and/or treatment options.	<p>RANZCR recommends rewording the statement as follows:</p> <p>Determine the appropriate imaging and/or treatment protocols <b>to follow and priorities,</b> which consider the information collected during the interaction with the patient/client and knowledge of imaging and/or treatment options <b>and consult with a clinical radiologist if there are any concerns.</b></p>
7. Deliver patient/client care.	b. Apply quality criteria to assure image quality, evaluate medical images and identify any urgent and/or unexpected findings.	<p>Evaluating medical images requires medical training.</p> <p>RANZCR recommends rewording the statement as follows:</p> <p>Apply quality criteria to assure image quality, <del>evaluate and promptly alert the clinical radiologist of medical images and identify</del> any urgent and/or unexpected findings.</p>

<sup>3</sup> An example to illuminate RANZCR's point: a radiographer would not understand when a hemicolectomy, a low anterior resection or an abdominoperineal resection is required for colorectal cancer or what chemotherapy entails.

Key Capability	Enabling components	RANZCR comments
	<p>c. Take appropriate and timely action, to ensure the immediate management of the patient/client when any urgent and/or unexpected findings are identified.</p>	<p>RANZCR recommends rewording the statement as follows:</p> <p>Take appropriate and timely action, to ensure the immediate management, of the patient/client when any urgent and/or unexpected findings are identified <b>in the first instance by consulting with the clinical radiologist.</b></p>
	<p><b>Taking appropriate and timely action</b> is a key responsibility when a medical radiation practitioner identifies medically significant findings on an image. Information must be conveyed verbally or in writing, in line with relevant guidelines. Medical radiation practitioners must ensure information is conveyed to, and understood by, the appropriate persons who may include the requesting practitioner or other practitioners, for the immediate and appropriate management of the patient/client. The patient/client and their family/carers should also be informed. Communication between health practitioners about the clinical status of a patient should be recorded.</p>	<p>As with communication to a referrer, providing medical information to the patient/client and their family/carers is out of scope of radiography training.</p> <p>RANZCR recommends rewording the statement as follows:</p> <p><b>Taking appropriate and timely action</b> is a key responsibility when a medical radiation practitioner identifies medically significant findings on an image. Information must be conveyed verbally or in writing, in line with relevant guidelines. Medical radiation practitioners must ensure information is conveyed <b>to a clinical radiologist, and in circumstances where a clinical radiologist is not immediately available, then to—and understood by,</b> the appropriate persons who may include the requesting practitioner or other practitioners, for the immediate and appropriate management of the patient/client. <del>The patient/client and their family/carers should also be informed.</del> Communication between health practitioners about the clinical status of a patient should be recorded.</p>
<p>8. Apply knowledge of safe and effective use of medicines to practice.</p>		<p>Radiographers are not trained in the safe and effective use of medicines, except for IV contrast, and medications used for image guided injections.</p> <p>RANZCR recommends rewording this capability to read:</p> <p><b>Within the scope of medical radiation practice apply knowledge of safe and effective use of medicines to practice under the supervision of a clinical radiologist.</b></p>

Key Capability	Enabling components	RANZCR comments
9. Perform magnetic resonance imaging (MRI).	e. Perform and evaluate MRI and where appropriate, modify the examination according to the MRI findings and clinical presentation.	Evaluating the findings of an imaging examination requires medical training and can only be done by a clinical radiologist.  RANZCR recommends rewording the statement as follows:  Perform and evaluate MRI <b>under the supervision of a clinical radiologist</b> and where appropriate, modify the examination according to <b>advice from the clinical radiologist</b> on the MRI findings and clinical presentation.
	<b>MRI</b> includes contrast-enhanced studies and the safe and appropriate selection of MRI contrast agents for the patient/client presentation.	Contrast agents should be selected by the clinical radiologist directly or under protocols established in the practice.  RANZCR recommends rewording the statement as follows:  <b>MRI</b> includes contrast-enhanced studies and the safe and appropriate selection of MRI contrast agents, <b>by the supervising clinical radiologist or under established protocols</b> , for the patient/client presentation.
10. Perform ultrasound imaging	f. Document the real-time examination and evaluate findings.	RANZCR recommends rewording the statement as follows:  Document the real-time examination <b>and evaluate and communicate findings to a clinical radiologist</b> .
Domain 1A Diagnostic radiographer, Domain 1B Nuclear medicine technology, Domain 1C Radiation therapist		
2./5. Perform diagnostic computed tomography (CT) imaging	e. Perform and evaluate contrast and non-contrast CT examinations of the body and, when appropriate, modify them to consider patient/client presentation and clinical indications.	Evaluating and modifying CT examinations requires medical training and should only be done by a radiographer after consulting with a clinical radiology.  RANZCR recommends rewording the statement as follows:  Perform <del>and evaluate contrast and non-contrast</del> CT examinations of the body <b>as protocolled by the supervising clinical radiologist or as per the practice's established imaging protocols</b> , and, when needed, consult with a clinical radiologist about modifying the examination taking into consideration the <b>appropriate, modify them to consider</b> patient/client presentation and clinical indications.



Key Capability	Enabling components	RANZCR comments
Domain 2: Professional and ethical practitioner		
4. Advocate on behalf of the patient/client when appropriate.	c. Recognise when an alternative patient/client pathway may be more appropriate and make recommendations to other practitioners.	<p>Recognising when an alternative pathway may be more appropriate and make recommendations to other practitioners requires medical training and is a task that can only be done by a clinical radiologist.</p> <p>RANZCR recommends rewording the statement as follows:</p> <p>Recognise when an alternative patient/client pathway may be more appropriate <b>and communicate this to a clinical radiologist</b> <del>make recommendations to other practitioners.</del></p>
	<p><b>Recommendations on alternative patient/client pathways</b> must be made when it is recognised that the planned patient/client pathway may not provide the optimal outcome for the patient/client</p>	<p>RANZCR recommends rewording the statement as follows:</p> <p><b>Recommendations on alternative patient/client pathways</b> must <b>be escalated to a clinical radiologist</b> <del>made</del> when it is recognised that the planned patient/client pathway may not provide the optimal outcome for the patient/client.</p>
Domain 3: Communicator and Collaborator		
1. Communicate clearly, sensitively and effectively with the patient/client and their family or carers.	d. Provide an opportunity for the patient/client to explore the purpose of the proposed examination/treatment, the methods used and the usual patient/client experience.	<p>Radiographers regularly interact with patients and provide information on the examination they will receive. However, it should be recognized that they can only provide information to patients within their scope of practice and if medical information is required the questions from patients should be escalated to a clinical radiologist.</p> <p>RANZCR recommends rewording the statement as follows:</p> <p>Provide an opportunity for the patient/client to explore the purpose of the proposed examination/treatment, the methods used and the usual patient/client experience <b>and escalate questions to a clinical radiologist when required.</b></p>

Key Capability	Enabling components	RANZCR comments
	<p>h. Obtain and document informed consent, explaining the purpose, risks and benefits of the proposed examination/treatment.</p>	<p>This task is done under delegation from the clinical radiologist who is the medical practitioner providing the medical service to the patient.</p> <p>RANZCR recommends rewording the statement as follows:</p> <p>Obtain and document informed consent, explaining the purpose, risks and benefits of the proposed examination/treatment, <b>under delegation from the clinical radiologist.</b></p>
<p>2. Collaborate with other health practitioners.</p>	<p>d. Make recommendations to other members of the healthcare team about the suitability and application of the proposed medical radiation procedure, when appropriate.</p>	<p>Make recommendations to other members of the healthcare team about the suitability and application of the proposed medical radiation procedure requires medical training to understand the context of the requested examination and the clinical condition of the patient. This is out of scope for radiographers.</p> <p>RANZCR recommends rewording the statement as follows:</p> <p><b>Consult with the clinical radiologist and communicate his/her</b> <del>Make</del> recommendations to other members of the healthcare team about the suitability and application of the proposed medical radiation procedure, when appropriate.</p>
	<p><b>Making recommendations about the suitability and application of procedures</b> requires understanding the relative radiation risks and benefits to patients/clients of the examinations/treatment used and requires effective collaboration and feedback with other members of the healthcare team. More experienced medical radiation practitioners may be expected to direct other members of the healthcare team when appropriate.</p>	<p>RANZCR recommends rewording the statement as follows:</p> <p><b>Communicating Making recommendations about the suitability and application of procedures</b> <b>should only be done following consultation with the clinical radiologist and</b> requires understanding the relative radiation risks and benefits to patients/clients of the examinations/treatment used and requires effective collaboration and feedback with other members of the healthcare team. More experienced medical radiation practitioners may be expected to direct other members of the healthcare team when appropriate <b>under delegation of the clinical radiologist.</b></p>

Domain 5: Radiation safety and risk manager

<p>1. Perform safe radiation practice.</p>	<p>e. Review the referral and procedures to ensure appropriate:</p> <ul style="list-style-type: none"><li>• Justification</li><li>• Limitation</li><li>• Optimisation</li></ul>	<p>Reviewing the referral and assessing its appropriateness requires medical training and can only be under the supervision of a clinical radiologist. RANZCR recommends rewording the statement as follows:</p> <p>Review the referral and procedures to ensure appropriateness under the supervision of a clinical radiologist:</p> <ul style="list-style-type: none"><li>• Justification</li><li>• Limitation</li><li>• Optimisation</li></ul>
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