Medical Radiation Practice Board of Australia

Response template for providing feedback to public consultation – draft revised professional capabilities for medical radiation practice

This response template is an optional way to provide your response to the public consultation paper for the **Draft revised professional capabilities for medical radiation practice.** Please provide your responses to any of the questions in the corresponding text boxes; you do not need to answer every question if you have no comment.

Making a submission

Please complete this response template and send to medicalradiationconsultation@ahpra.gov.au, using the subject line '*Feedback on draft revised professional capabilities for medical radiation practice*'.

Submissions are due by midday on Friday 26 April 2019.

Stakeholder details

Please provide your details in the following table:

Name:	Gregory Brown PhD
Organisation Name:	University of South Australia. Fellow and life member of the Society of Magnetic Resonance Radiographers and Technologists Registered MRP

Your responses to the preliminary consultation questions

1. Does any content need to be added to any of the documents?
The description of capabilities for Domain 1 Capability 9. (optional MRI) is a welcome addition. MRI is a complex technology where the appropriately skilled MRP provides much of the input to maximise the quality of the examination, and the safe management of patients and staff in light of multiple immediate risks. I welcome the commonality of expectations for MRP across each of the divisions when they include independent MR operation in their practice. The public must expect the same minimum standard of care regardless of the division the MP originated in. That “entry level” requirement must be sufficient to ensure the expectation of safe and quality imaging across the range of procedures being performed. A difficulty with MRI is that the scanners are typically equipped and staffed to perform a n extensive range of procedures that cannot be defined effectively by body parts.. The description of Key capabilities and enabling criteria are in line with those for other parts of Domain 1, but are not specific enough to determine when a practitioner is not demonstrating sufficient knowledge or application of in depth knowledge to produce a safe quality service to the patient. The wording on the MR Key Capabilities is drawn largely from the CT statement, which reflects a lack of understanding of the way in which MR needs to be administered. It is far more like an extension of the Ultrasound model, than the CT model. The role of an independent MRP in MRI is far more diverse than in CT and has more direct input and surveillance on immediate stochastic safety risks for patients and all staff. Missing enabling criteria are Apply knowledge of cross sectional anatomy, pathophysiology tissue characteristics including diffusion, haemodynamics on macro and micro scales, and the of appearances normal and abnormal anatomy in order to direct the progress of an effective examination in the context of the request and likely differentials. This would cover the role of the MR MRP in applying the wide range of MR techniques and image contrast options to answer the clinical questions posed by the referring clinician and presenting symptoms. Alternately the MR EC needs similar additional statements to those used in ultrasound, i.e. Apply knowledge of the principles of magnetic resonance physics to minimise the likelihood of biological effects, interactions with implanted devices and materials and the control and identification of artefacts. Use standard and non-standard techniques/images and equipment for the body area being examined and, where appropriate, modify them to consider the patient/client presentation and clinical indications. Perform magnetic resonance imaging and where appropriate, extend or modify the examination according to the findings and clinical presentation.
2. Does any content need to be amended or removed from any of the documents?

The present clause Domain 1 9 C should include selecting appropriate equipment (coils etc)

Domain 1 -9. The penultimate sentence infers the MRP is responsible for selection of the contrast agent for a specific patient.

A competent entry level or expert MRI MRP cannot legally prescribe the use of contrast, or a particular agent. There are differences between agents in terms of use in low renal function, pregnancy and breast feeding, and differences in gadolinium retention that must be understood by the entry level MRP, but the contrast must be prescribed by the responsible physician (billing radiologist)

3. Do the key capabilities sufficiently describe the threshold level of professional capability required to safely and competently practise as a medical radiation practitioner in a range of contexts and situations?

Domain 1 – 9 is very general and could be interpreted to describe an entry level MRP with the suggested amendments.

Domain 1 A -1 is a far less specific description of the necessary performance of a diagnostic radiographer with regard to general radiographic procedures. It does not describe the range fo procedures and examinations a basic MRP diagnostic radiographer would be expected to be competent in.

4. Do the enabling components sufficiently describe the essential and measurable characteristics of threshold professional capability that are necessary for safe and competent practice?

Not in terms of the scope of procedures expected of an entry level diagnostic radiographer. Not in terms of a competent MRP independently providing MRI services.

5. Is the language clear and appropriate? Are there any potential unintended consequences of the current wording?

The relationship of Domain 1 clause 3 e " operate equipment …..when necessary, combined with the Equipment list that follows doesn't make it clear that there are specific Key capabilities for ultrasound and MRI, It doesn't make clear which equipment an MRP registered in specific branches should be expected to operate competently, and which one should not.

6. Are there jurisdiction-specific impacts for practitioners, or governments or other stakeholders that the National Board should be aware of, if these capabilities are adopted?

7. Are there implementation issues the National Board should be aware of?

Optional domain 1-10 sensibly will apply to those MRP employed with a protected title (radiographer) and who perform Ultrasound. The current professional standard is a requirement for approved post graduate training and experience. I would expect the Accreditation Committee to adopt that requirement as the evidence that a MRP has sufficient training to demonstrate the required capabilities

Given that MRI has a higher degree of equipment and image contrast complexity than Ultrasound, and that it has potential for causing immediate serious harm to patients and implanted devices if not administered proficiently, it is entirely appropriate that the Australian Accreditation Committee moves in the way the New Zealand counterpart has done, and require specific post graduate education. Alternately the Board would have to defend the view that image quality and safety are less important in MRI than in Ultrasound.

Globally educators and practitioners recognize that MRI competence requires a long course of specific education that is not delivered practically or appropriately in undergraduate medical imaging, radiation therapy and nuclear medicine programmes. To give the public the intended benefits of a registered health workforce, requirements for specific education are needed.

This is likely to be met with opposition from the RANZCR, who made their opinions known in the recent review of the NZ requirements for post Grad MR education. Implementation of quality protections for the Australian public will require the Board firmly supports it Accreditation Committee, and gives force to the stated intentions to honour Trans-Tasman commitments.

8. Do you have any other general feedback or comments on the proposed draft revised professional capabilities?

There are some points where the professional make-up of the authorship group shows. This may be seen in Domain 1 clauses 9 and 10.
The Board and its Accreditation Committee will specifically need expertise form the established MRI professional community (the ANZ chapter of SMRT and ISMRM) and the Ultrasound professional community.

I don't see the logic of requiring all MRP (Domain 1 clause 3) to specifically understand the use of CT and MRI based simulations for a range of cancer sites and planning procedures (3c) or understanding the use of CT MRI and PET datasets in radiation therapy planning. The focus on RT planning detail unbalances the EC. The use of specific imaging modalities (excluding Ultrasound) in clauses c and d is incongruous with eth general statements of clauses a and b.