



New Zealand
**Medical Radiation
Technologists Board**
Te Poari Ringa Hangarua Iraruke

CONSULTATION OUTCOMES:

Proposed Changes to Qualifications Prescribed for the Purpose of Registration

In September 2020 the Medical Radiation Technologists Board published a consultation document seeking feedback on some proposed changes to the qualifications it prescribes for the purpose of registration.

This report summarises the key themes of the consultation feedback and the Board's decision in respect of the proposal.

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Introduction

The Medical Radiation Technologists Board (the Board) extends its thanks and appreciation to the individuals and groups who provided feedback on a recent (September 2020) consultation on proposed changes to the qualifications prescribed under the Health Practitioners Competence Assurance Act 2003 (HPCAA) for the purpose of registration.

Consultation Response Rate

A total of 390 respondents provided feedback on the proposed changes, 20 of those from groups and the balance from individuals (most of whom were from the medical imaging and radiation therapy profession):

Respondent Category	Number of Respondents	Percentage
Medical Imaging Technologist	124	32%
MRI Technologist	108	28%
Nuclear Medicine Technologist	10	3%
Radiation Therapist	15	4%
Sonographer	99	25%
Not a registered practitioner	14	4%
Group ¹	20	4%
Total	390	100%

Group responses were received from:

- Auckland District Health Board
 - o Echocardiology department
 - o Cardiology department
 - o Paediatric department (Starship)
- APEX
- Australasian Sonographers Association
- Australasian Society of Ultrasound in Medicine
- Bay of Plenty District Health Board
- Cardiac Society Australia and New Zealand
- Hawkes Bay District Health Board
- Ministry of Health
- National Radiology Advisory Group
- Northern Region Radiology Network
- Office of the Health and Disability Commissioner
- Pacific Radiology Canterbury
- Procare
- Regional Cancer Centre Waikato District Health Board
- Royal Australian and New Zealand College of Radiologists
- The Auckland Doctors
- TRG Imaging Ltd
- Tumu Whakararae

¹ It is acknowledged that while the groups category equated to 4% of the responses all of these respondents represented collective points of view

Summary of Consultation Results

Questions	Response Options	MIT	MRI	NM	RT	SON	Not a registered practitioner	Group	Total
Do you agree or disagree with the proposed changes?	Agreed	55	21	5	11	19	12	11	134
	Disagreed	67	86	5	4	80	2	8	252
	Skipped	2	1	-	-	-	-	1	4
Is there anything stated in the consultation document that requires further clarification?	Yes	13	20	1	3	16	-	-	53
	No	84	56	6	9	60	11	5	231
	Made further comment	23	28	3	2	22	3	14	95
	Skipped	4	4	-	1	1	-	1	11

Consultation Feedback: Non-Support of the Proposal

The Board took consideration of the relatively high number of respondents who did not support the proposal. Non-support for the proposal was based on a number of viewpoints including (but not limited to):

- the proposal would reduce the current high standards required of New Zealand practitioners
- it undermines the NZ qualifications in MRI, ultrasound and nuclear medicine
- the Board does not have a role in addressing workforce issues, it's role is to protect public health and safety
- will encourage the employment of more overseas-trained practitioners to the detriment of NZ-trained practitioners

Consultation Feedback: Support of the Proposal

Respondents in support of the proposal offered a number of viewpoints including (but not limited to):

- recognises that the pathways for practising modalities such as MRI is different in many overseas countries and not having an academic post graduate qualification does not mean practitioners are not competent
- there is still a requirement for an underpinning qualification in medical imaging which means practitioners will have a good base knowledge
- the online exam can be used to assess if the overseas-trained practitioner has a good level of foundational knowledge in the relevant scope of practice
- will help to address workforce shortages which, if not addressed, raises a risk of harm to the public due to long waiting lists

Board Decision

Taking all feedback into account, the Medical Radiation Technologists Board has resolved to proceed with making changes (as proposed in the September 2020 consultation document) to the Gazette notice that prescribes the qualifications for the purpose of registration in the scopes of practice of *Magnetic Resonance (MRI) Technologist, Nuclear Medicine Technologist, and Sonographer*.

The changes entail an additional pathway to registration in the three aforementioned scopes of practice to allow for overseas-trained practitioners who hold an underpinning degree in medical imaging and/or radiation therapy, have considerable clinical experience but do not hold a formal academic qualification in the relevant scope of practice, to be eligible for registration through successfully passing the Board's online registration examination.

The revised version of the notice to be published in the New Zealand Gazette is attached as Appendix 1.

Regulatory obligation

As the regulator of the medical imaging and radiation therapy profession the Board is responsible for setting the minimum standards required of the profession. In doing this it has a legislative responsibility under section 13 of the HPCAA to ensure that in prescribing qualifications, those qualifications must be both necessary and not unnecessarily restrict the registration of practitioners. The Board is satisfied that the additional qualification as a pathway to registration supports these

legislative principles while simultaneously protecting the health and safety of the New Zealand public.

In making its decision the Board made a number of observations in respect of key themes identified in the consultation feedback:

Requirement to sit a Board examination

Before being considered for the registration pathway of successfully passing a Board examination, overseas trained applicants must demonstrate they hold an undergraduate degree in medical imaging or radiation therapy that has been assessed as being equivalent to the New Zealand standard. Therefore the applicant will have underpinning knowledge in medical imaging principles and practices. Sitting a Board exam will not be open to applicants with a non-medical imaging related qualification (such as science degree).

The recently introduced online examinations set by the Board as a pathway to registration are a reliable and valid method of testing an applicant's clinical knowledge. Exam questions have been developed by experienced clinicians and educationalists and every question is assessed in terms of validity and reliability before being added to the exam question bank. This latter step is undertaken by an examination committee comprised of very experienced clinicians and educationalists from the profession, and supported by an expert in test design and structures.

The online exams are designed within a competency-based model that focuses on the application of medical imaging/radiation therapy knowledge in a clinical setting. Questions are asked from a perspective of how knowledge is used to practise as opposed to the direct recall of that knowledge. Questions are linked to the entry-level competencies required of all practitioners to practise in New Zealand.

Each examination tests that the candidate has the appropriate level of base knowledge pertaining to the safe and competent practise of the relevant scope of practice.

The Board is confident its examination framework, which is similar to overseas examinations used within the medical imaging regulatory environment, is a reliable and valid method of assessing clinical knowledge and skills.

More detailed information on the Board's examination is contained in the policy document *Online Examinations* which can be downloaded from the website www.mrtboard.org.nz

Supervision may be added as a condition on practice

As an additional safeguard for ensuring an overseas trained practitioner demonstrates safe and competent practice, the Board may impose a condition that they complete a specified period of supervised practice subsequent to successfully passing the Board examination, and upon gaining employment in New Zealand. This will be determined on a case-by-case basis including consideration of the extent and recency of their practice, and whether that was undertaken in a country with a health system that has comparable medical imaging and radiation therapy infrastructures to New Zealand.

A condition of supervised practice will normally be managed through the issue of an interim practising certificate (IPC) which is for a specified period of time (it must be less than 12-months). The Board must be satisfied that there is sufficient and certified evidence that the practitioner has demonstrated they meet the minimum (entry-level) competencies required for the relevant scope of practice before they issue the practitioner with an unconditional annual practising certificate (APC).

The Board recognises the importance of making sure its supervision framework is robust in terms of meeting its purpose and supporting the practitioners who both provide and receive supervision. To this end, the Board is planning to undertake a review of its supervision standards and resources, commencing in 2021.

Registration process is multi-faceted

The Board employs a comprehensive assessment process when considering overseas trained applicants for registration. This goes further than just looking at an academic qualification. It includes (but is not limited to) consideration of other factors such as the recency and range of clinical experience; the size of the practice and the range and types of equipment used; the relevance and recency of CPD in respect of the scope of practice in which registration is being sought; third party attestation to clinical experience and competence.

Minimum competencies but different pathways

A number of respondents expressed concerns that the change provides an easier pathway to registration for overseas practitioners to practise MRI/ultrasound/nuclear medicine compared to New Zealand graduates who do a post-graduate diploma qualification in the relevant modality. In addition some respondents also perceived that the additional registration pathway will reduce the level of practice standard required of overseas-trained practitioners compared with those required of New Zealand graduates.

Having different pathways to registration does not equate to different practice standards. All applicants, irrespective of the registration pathway they are eligible to pursue must demonstrate that they meet the entry-level competencies required of all practitioners in each of the scopes of practice the Board has defined for the profession of medical imaging and radiation therapy. However, there are a number of different registration pathways available to applicants to demonstrate they meet the minimum level of competence.

Having a number of qualification pathways available to applicants to become registered is a core provision of the HPCAA. To do otherwise would be contrary to section 13 which states the Board may not unnecessarily restrict the registration of health practitioners.

The Board noted that they have no evidence to suggest that overseas-trained practitioners do not have a comparable level of knowledge and skills as that of their New Zealand-trained counterparts. The incidence of competency-based concerns raised with the Board in respect of individual practitioners is of such a low rate that it would not allow for any reliable analysis of potential differences between NZ and overseas trained practitioners.

Registration and employment

A concern was raised that the Board's driver for the addition of another registration pathway is around workforce shortages and that this is outside the Board's jurisdiction. While it is true that workforce issues are not a key feature of the HPCAA legislation, it is nevertheless not unreasonable for the Board to consider workforce issues in the context of the potential impact on the health and safety of the public.

The Board has been made aware of concerns by a number of employers over recent years in respect of difficulties with recruitment of registered medical imaging practitioners, particularly in the MRI

and sonography scopes. While anecdotal information in the consultation feedback advises that currently there are actually more New Zealand practitioners graduating into the New Zealand system than there are available jobs, the Board is not assured that this will continue to be the case in the short-to-medium term (it is to be hoped that in the longer term New Zealand will be able to train more home-grown graduates). Growing demands for timely access to imaging and radiation therapy services are likely to continue and it is reasonable to expect that once the pandemic situation is over, there will be a return to practitioners exiting the profession in New Zealand as they get back into overseas travel and work.

While workforce was one factor of consideration when formulating its proposal, this was by no means the driving force, nor the only issue considered. For example, ensuring the Board is meeting its responsibilities through the provision of appropriate mechanisms to enable a wide range of practitioners to apply for registration was another factor of consideration; as was recognition of relevant skills and knowledge gained through considerable clinical experience rather than the completion of a post-graduate academic qualification.

The additional pathway of successfully passing a Board examination will be an option for a relatively small number of applicants. It is unlikely there will be any significant impact on the recruitment of New Zealand trained practitioners.

It is important to note that registration does not guarantee employment. Furthermore, it is not uncommon for many overseas domiciled practitioners to apply for, and be granted registration, and then never make the move to practising in New Zealand, or there is a considerable time gap between their registration and taking up practice here. Under the legislation, practitioners do not have to be domiciled in New Zealand to be granted registration or a practising certificate.

Revised Gazette Notice

The Board will publish a revised notice in the New Zealand Gazette – a draft copy of that notice is included as Appendix 1.

Appendix 1: Revised Gazette Notice

Introduction

Under section 11 of the Health Practitioners Competence Assurance Act 2003 (“Act”), the Board is obliged to define each of the practice areas (known as scopes of practice or scopes) that make up the practice of medical radiation technology. The Board’s role is to identify for each of these scopes of practice the aspects of medical radiation technology covered by each scope. Medical radiation technology practitioners seeking to practise in New Zealand must first be registered with the Board in one or more of the scopes of practice as defined in this notice.

Section 12 of the Act requires the Board to formally “prescribe” the specific qualifications that medical radiation technology practitioners must have, to be eligible for registration in each of the scopes of practice. The prescribed qualifications may be different for each scope of practice.

The Profession of Medical Radiation Technology

Medical radiation technology is a patient-centred profession that encompasses the practices of medical imaging and radiation therapy. Medical imaging practitioners use different technologies to create images of the human body for diagnosis and the staging and management of disease. Radiation therapy practitioners use technology to create and evaluate images and data related to the localisation, planning and delivery of radiation treatments.

Scopes of Practice

The profession of medical radiation technology contains eight scopes of practice. Pursuant to section 11 of the Act, the Board specifies those scopes of practice as:

Scope of Practice – Medical Imaging Technologist

Medical Imaging Technologists are responsible for the outcome of the diagnostic imaging examination. The outcome of the examination is recorded electronically to allow for consultation with other health and medical practitioners.

Medical Imaging Technologists produce high quality diagnostic radiographs or carry out diagnostic procedures using ionising radiation. With appropriate training, Medical Imaging Technologists may practise computed tomography (CT), mammography, and angiography. Medical Imaging Technologists evaluate the diagnostic quality of images and take corrective measures as required.

Medical Imaging Technologists competencies include, but are not limited to, patient care, patient positioning, imaging physics and technology, anatomy and physiology identification and assessment, bioeffects and radiation safety, clinical and organisational responsibility for the examination, and quality assurance.

Scope of Practice – Radiation Therapist

Radiation Therapists are responsible for the planning and delivery of radiation treatment, primarily for people diagnosed with cancer. Radiation Therapists create and evaluate images for the localisation, planning and delivery of radiation treatment according to the prescription of the Radiation Oncologist.

Radiation Therapists provide specific care to patients throughout the course of their treatment and educate patients on the management of any treatment related side-effects.

Radiation Therapists' competencies include, but are not limited to, patient care, treatment design and delivery, radiation safety, clinical and organisational responsibility for the planning and treatment, and quality assurance.

Scope of Practice – Nuclear Medicine Technologist

Nuclear Medicine Technologists are responsible for the outcome of the nuclear medicine examination. The outcome of the examination is recorded electronically to allow for consultation with other health and medical practitioners.

Nuclear Medicine Technologists are involved in the preparation, administration, imaging and quantification of diagnostic pharmaceuticals to demonstrate organ and molecular function as well as the delivery of therapeutic radiopharmaceuticals to treat a number of pathologies.

Nuclear Medicine Technologists operate gamma camera systems (SPECT) and PET imaging systems with or without sealed sources of radioactive materials or x-ray tubes for attenuation correction, anatomical fusion, transmission imaging or, subsequent to a Board-approved training programme, diagnostic CT.

Nuclear Medicine Technologists' competencies include, but are not limited to, patient care, patient positioning, preparation and administration of radiopharmaceuticals, radionuclide and radiation safety, in-vitro diagnostic testing, radionuclide therapy, clinical and organisational responsibility for the examination, and quality assurance.

Scope of Practice – Sonographer

Sonographers are responsible for the outcome of the diagnostic ultrasound examination. The outcome of the examination is recorded electronically to allow for consultation with other health and medical practitioners.

Sonographers perform a wide range of real-time diagnostic examinations and may at their discretion (and in accordance with clinical and workplace guidelines) extend the examination to include relevant regions and/or sequences not suggested in the referral.

Sonographers' competencies include, but are not limited to, patient care, ultrasound physics and technology, anatomy and physiology identification and assessment, diagnostic interpretation of the ultrasound findings, bioeffects and the use of ultrasound technology, clinical and organisational responsibility for the examination, and quality assurance.

Scope of Practice – Magnetic Resonance Imaging (MRI) Technologist

Magnetic Resonance Imaging (MRI) Technologists are responsible for the outcome of the MRI examination. The outcome of the examination is recorded electronically to allow for consultation with other health and medical practitioners.

MRI Technologists produce high quality diagnostic images using a powerful magnetic field. MRI Technologists may at their discretion (and in the accordance with clinical and workplace guidelines) extend the examination to include relevant regions and/or sequences not suggested in the referral or protocol.

MRI Technologists' competencies include, but are not limited to, patient care, patient positioning, use of magnetic resonance imaging physics and technology, bioeffects and magnetic resonance safety, clinical and organisational responsibility for the examination, and quality assurance.

Scope of Practice – Trainee Nuclear Medicine Technologist

Suitably qualified applicants can apply for registration as a Trainee Nuclear Medicine Technologist in an approved training programme in nuclear medicine. Upon completion of the nuclear medicine training programme, and meeting the requirements for demonstrating clinical competence, the Trainee Nuclear Medicine Technologist is eligible to apply for registration in the scope of practice of Nuclear Medicine Technologist.

Scope of Practice – Trainee Sonographer

Suitably qualified applicants can apply for registration as a Trainee Sonographer in an approved training programme in ultrasound. Upon completion of the ultrasound training programme, and meeting the requirements for demonstrating clinical competence, the Trainee Sonographer is eligible to apply for registration in the scope of practice of Sonographer.

Scope of Practice – Trainee Magnetic Resonance Imaging (MRI) Technologist

Suitably qualified applicants can apply for registration as a Trainee MRI Technologist in an approved training programme in MRI. Upon completion of the MRI training programme, and meeting the requirements for demonstrating clinical competence, the Trainee MRI Technologist is eligible to apply for registration in the scope of practice of Magnetic Resonance Imaging (MRI) Technologist.

Qualifications Prescribed for Registration

Pursuant to section 12 of the Act, the following qualifications are prescribed for registration:

Medical Imaging Technologist

The practitioner must satisfy one of the following:

An undergraduate degree in diagnostic medical imaging from a New Zealand tertiary education institution that is accredited and monitored by the Board.

A qualification in diagnostic medical imaging approved by the Board combined with appropriate medical imaging experience.

A medical imaging qualification and a pass in a Board examination combined with appropriate medical imaging experience.

Radiation Therapist

The practitioner must satisfy one of the following:

An undergraduate degree in radiation therapy from a New Zealand tertiary education institution that is accredited and monitored by the Board.

A qualification in radiation therapy approved by the Board combined with appropriate radiation therapy experience.

A radiation therapy qualification and pass in a Board examination combined with appropriate radiation therapy experience.

Nuclear Medicine Technologist

The practitioner must satisfy one of the following:

A relevant undergraduate health science qualification and a postgraduate diploma in nuclear medicine from a New Zealand tertiary education institution that is accredited and monitored by the Board, combined with appropriate nuclear medicine experience.

A qualification in nuclear medicine approved by the Board combined with appropriate nuclear medicine experience.

A nuclear medicine qualification and a pass in a Board examination combined with appropriate nuclear medicine experience.

An undergraduate qualification in medical imaging or radiation therapy as approved by the Board, **and** a minimum of 2.5 years FTE nuclear medicine practice that meets Board clinical experience requirements, **and** a pass in a Board nuclear medicine examination.

Sonographer

The practitioner must satisfy one of the following:

A relevant undergraduate health science qualification and a postgraduate diploma in ultrasound from a New Zealand tertiary education institution that is accredited and monitored by the Board, combined with appropriate ultrasound experience.

A qualification in ultrasound approved by the Board combined with appropriate ultrasound experience.

An ultrasound qualification and a pass in a Board examination combined with appropriate ultrasound experience.

An undergraduate qualification in medical imaging or radiation therapy as approved by the Board, **and** a minimum of 2.5 years FTE ultrasound practice that meets Board clinical experience requirements, **and** a pass in a Board ultrasound examination.

Magnetic Resonance Imaging (MRI) Technologist

The practitioner must satisfy one of the following:

A relevant undergraduate health science qualification and a postgraduate diploma in MRI from a New Zealand tertiary education institution that is accredited and monitored by the Board, combined with appropriate MRI experience.

A qualification in MRI approved by the Board combined with appropriate MRI experience.

A MRI qualification and a pass in a Board examination combined with appropriate MRI experience.

An undergraduate qualification in medical imaging or radiation therapy as approved by the Board, **and** a minimum of 2.5 years FTE MRI practice that meets Board clinical experience requirements, **and** a pass in a Board MRI examination.

Trainee Nuclear Medicine Technologist

The practitioner must satisfy the following:

A relevant health science qualification approved by the Board and enrolment in a Board-approved course of training in nuclear medicine.

Trainee Sonographer

The practitioner must satisfy the following:

A relevant health science qualification approved by the Board and enrolment in a Board-approved course of training in ultrasound.

Trainee Magnetic Resonance Imaging (MRI) Technologist

The practitioner must satisfy the following:

A relevant health science qualification approved by the Board and enrolment in a Board-approved course of training in MRI.