



Notice replacing scopes of practice and prescribed qualifications for Te Poari Ringa Hangarau Iraruke | the Medical Radiation Technologists Board

This notice will replace all previous scopes of practice and prescribed qualifications notices of Te Poari Ringa Hangarau Iraruke | the Medical Radiation Technologists Board (the Board).

Introduction

Under section 11 of the Health Practitioners Competence Assurance Act 2003 (the Act), the Board is obliged to define each of the practice areas (known as scopes of practice or scopes) that make up the practise of the profession of medical radiation technology (the Act s182(2)). The Board's role is to identify for each scope of practice the aspects of medical radiation technology covered by each scope. Medical radiation technology practitioners seeking to practise in Aotearoa 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 and whānau-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; the staging and management of disease; and for interventional and therapeutic procedures. Medical imaging practitioners may, in accordance with clinical and workplace guidelines, extend the examination to include relevant regions and/or sequences not suggested in the referral or protocol when deemed to be clinically appropriate.

Radiation therapists are responsible for the planning and delivery of radiation treatment, predominantly for people diagnosed with cancer.

Medical imaging and radiation therapy practice includes (but is not limited to) supportive patient care; patient positioning; imaging physics and technology; anatomy, pathology and physiology identification and assessment; bioeffects and safety; image evaluation; and clinical and organisational responsibility for the examination and/or treatment.

Practice also includes quality improvement and assurance activities; research; policy; leadership; education; management and other related areas.

Medical imaging and radiation therapy practitioners work towards equitable outcomes for patients and deliver care that is responsive to the patient's cultural needs, recognising the unique place of Māori as Tangata Whenua of Aotearoa New Zealand.

Medical imaging technologists, radiation therapists and nuclear medicine technologists must demonstrate competencies in relation to radiation safety.

Medical imaging and radiation therapists with a qualification approved by the Board may be endorsed to practise in specific expanded areas. The Board maintains a list of approved qualifications and endorsements.

Scopes of practice

The professions of medical imaging and radiation therapy contain five scopes of practice. Pursuant to section 11 of the Act, the Board specifies those scopes of practice as:

1. Scope of practice – medical imaging technologist

Medical imaging technologists are responsible for the facilitation of the procedure and outcome of the diagnostic imaging examination. The outcome of the examination is recorded to allow for consultation with other health and medical practitioners.

Medical imaging technologists produce high quality diagnostic images and/or carry out diagnostic procedures using ionising radiation. Medical imaging technologists evaluate the diagnostic quality of images and take appropriate measures as required by clinical and workplace guidelines.

With appropriate education, medical imaging technologists may also practise within the areas of computed tomography (CT), mammography, fluoroscopy and interventional radiography.

2. Scope of practice – radiation therapist

Radiation therapists are responsible for the planning, delivery and care of patients and their whānau throughout the course of their radiation treatment. They educate patients on the management of any treatment-related side effects.

Radiation therapists create and evaluate images for the localisation, planning and delivery of radiation treatment according to the prescription of an appropriate authorised prescriber.

3. Scope of practice – nuclear medicine technologist

Nuclear medicine technologists are responsible for the facilitation of the procedure and outcome of the nuclear medicine examination. The outcome of the examination is recorded to allow for consultation with other health and medical practitioners.

Nuclear medicine technologists are responsible for preparing and administering diagnostic radiopharmaceuticals, performing imaging procedures, and quantifying results to assess organ and molecular function. They also deliver therapeutic radiopharmaceuticals to treat various medical conditions.

Nuclear medicine technologist practice also includes radionuclide and radiation safety; in-vitro diagnostic testing; and radionuclide therapy, in addition to the preparation and administration of the radiopharmaceuticals mentioned above.

With appropriate education, nuclear medicine technologists can operate gamma camera systems (Single Photon Emission Computed Tomography/SPECT) and imaging systems (Positron Emission Tomography/PET) with or without computed tomography (CT) for diagnostic imaging, attenuation correction and anatomical fusion.

Nuclear medicine technologists may also be involved in the delivery of theranostic treatments, in collaboration with a wider clinical team, delivering integrated diagnostic imaging and targeted radionuclide therapy to enable personalised patient care.

4. Scope of practice – sonographer

Sonographers are responsible for the facilitation of the procedure, outcome, and diagnostic interpretation of ultrasound findings and for conveying the results to other health and medical practitioners.

Sonographers must demonstrate a high level of understanding of the physics of ultrasound instrumentation, ultrasound bioeffects, anatomy and physiology. They must be able to recognise and interrogate normal and abnormal anatomy.

Sonographers may practice in a variety of disciplines including general, cardiac and vascular ultrasound. They may use the following titles in accordance with their area of education and competence: sonographer, cardiac sonographer, echocardiographer, echocardiographic sonographer, general sonographer, and vascular sonographer.

5. Scope of practice – magnetic resonance imaging (MRI) technologist

Magnetic resonance imaging (MRI) technologists are responsible for the facilitation of the procedure and outcome of the MRI examination. The outcome of the examination is recorded to allow for consultation with other health and medical practitioners. MRI technologists produce high quality diagnostic images using a strong static magnetic field, time varying gradients and radiofrequency fields.

MRI practice requires a comprehensive understanding of MRI physics and associated technology to safely manage risks to the patient and any other required support within the MRI environment. MRI technologists require an understanding of the bioeffects of the interaction between the patient, the static magnetic field, the spatial gradient magnetic field, the time varying gradients, and the radio frequency fields. They have a responsibility to advocate for the protection of the public and staff around the MRI environment.

MRI technologists may administer contrast media and other relevant pharmaceuticals in accordance with their level of competence, workplace policies and procedures.

Qualifications prescribed for registration

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

1. Medical imaging technologist

The practitioner must satisfy one of the following:

- An undergraduate degree in diagnostic medical imaging from a tertiary education institution that is accredited and monitored by the Board.
- A qualification in diagnostic medical imaging assessed by the Board as substantially equivalent to the accredited qualification combined with meeting the Board's competence requirements.
- A relevant medical imaging qualification and a pass in a Board examination combined with meeting the Board's competence requirements.

2. Radiation therapist

The practitioner must satisfy one of the following:

- An undergraduate degree in radiation therapy from a tertiary education institution that is accredited and monitored by the Board.
- A qualification in radiation therapy assessed by the Board as substantially equivalent to the accredited qualification with meeting the Board's competence requirements.
- A relevant radiation therapy qualification and pass in a Board examination combined with meeting the Board's competence requirements.

3. Nuclear medicine technologist

The practitioner must satisfy one of the following:

- A minimum of an undergraduate degree in nuclear medicine technology from a tertiary education institution that is accredited and monitored by the Board.
- A relevant undergraduate health science qualification and a postgraduate qualification in nuclear medicine from a tertiary education institution that is accredited and monitored by the Board.
- A qualification in nuclear medicine assessed by the Board as substantially equivalent to the accredited qualification combined with meeting the Board's competence requirements.
- A relevant qualification and a pass in a Board nuclear medicine examination combined with meeting the Board's competence requirements.

4. Sonographer

The practitioner must satisfy one of the following:

- A minimum of an undergraduate degree in the relevant ultrasound discipline from a tertiary education institution that is accredited and monitored by the Board.
- An undergraduate health science qualification and a postgraduate qualification in the relevant ultrasound discipline from a tertiary education institution that is accredited and monitored by the Board.
- A qualification in the relevant ultrasound discipline assessed by the Board as substantially equivalent to the accredited qualification combined with meeting the Board's competence requirements.
- A qualification in the relevant ultrasound discipline and a pass in a Board examination combined with meeting the Board's competence requirements.

5. Magnetic resonance imaging (MRI) technologist

The practitioner must satisfy one of the following:

- A minimum of an undergraduate degree in MRI from a tertiary education institution that is accredited and monitored by the Board.
- A relevant undergraduate health science qualification and a postgraduate qualification in MRI from a tertiary education institution that is accredited and monitored by the Board.
- A qualification in MRI assessed by the Board as substantially equivalent to the accredited qualification combined with meeting the Board's competence requirements.
- A relevant qualification and a pass in a Board examination combined with meeting the Board's competence requirements.