

## **Notice Replacing Scopes of Practice and Prescribed Qualifications for the New Zealand Medical Radiation Technologists Board**

This notice replaces all previous scopes of practice and prescribed qualifications notices of the New Zealand Medical Radiation Technologists Board (“Board”).

### **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:

#### **1. 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.

#### **2. 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.

#### **3. 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.

#### **4. 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. The Sonography scope of practice includes:

- General ultrasound imaging;
- Vascular ultrasound imaging;
- Cardiac ultrasound imaging.

Each of the 3 modalities requires specific education or training to allow practice in this discipline.

#### **5. 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.

#### **6. 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.

#### **7. 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.

#### **8. 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:

##### **1. 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.

##### **2. 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.

### **3. 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.

### **4. 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.
- A relevant qualification in cardiac 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.

### **5. 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.

### **6. 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.

### **7. 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.

**8. 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.

Dated at Wellington this 11th day of May 2023.

CALEB BRIDGEMAN, Registrar, Medical Radiation Technologists Board.

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