

Integration of MRI into Radiation Therapy

Enhanced practice authorization program
for Radiation Therapists

Updated January 2025

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This guide is designed to provide radiation therapists with information about the Integration of MRI into Radiation Therapy enhanced practice authorization program adopted by the Alberta College of Medical Diagnostic and Therapeutic Radiation therapists (ACMDTT).

The *Health Professions Act* (HPA) identifies the practice of radiation therapy to be uniquely distinct from the practice of magnetic resonance imaging technology. As such, radiation therapists registered on the radiation therapy register are not authorized to apply magnetic resonance imaging in conjunction with radiation therapy.

Under the provision of the HPA and s.19(1) of the *Medical Diagnostic and Therapeutic Radiation therapists Profession Regulation*, a regulated radiation therapist who has completed advanced training approved by ACMDTT Council may be authorized by the Registrar to apply magnetic resonance imaging specifically within the confines of a radiation therapy setting.

The objective of the College in authorizing a program in Integrated MR into Radiation Therapy is to prepare radiation therapists to apply magnetic resonance imaging (MRI) safely and competently within the confines of radiotherapy in an MR RT environment. The information contained in this guide describes the expectations and goals, both academically and experientially, that the radiation therapist must achieve to be successful in this program.

As this technology is deployed across Alberta, this program will be re-evaluated by 2025.

The college has adopted the University of Toronto Advanced Certificate of Completion of the MR-integrated Radiation Therapy Training Program.

A radiation therapist must have completed the courses of the academic component of the program prior to commencing the clinical component.

Program components

The University of Toronto course is a web-based radiation medicine software that delivers both didactic and hands on clinical training.

It is the responsibility of the radiation therapist to set up a clinical practicum site prior to enrolling in the training program.

To successfully complete the program, the radiation therapist must complete the appropriate didactic and clinical requirements for the program.

Program Requirements

All radiation therapists must apply to the College for enhanced practice authorization. In addition to providing a completed Application for Additional and Enhanced Practice authorization, please provide evidence of completion of the following:

Academic Resource Options	Didactic Components
University of Toronto-Faculty of Medicine Radiation Oncology (UTDRO)	MR-integrated Radiation Therapy Training Program (MRiRT)

Alternative equivalent courses or training must be pre-assessed by the ACMDTT before clinical training is approved and arranged.

2. Clinical Requirement

Successful completion of the clinical component.

3. Final Submission

All the applicable items must be submitted to the Registrar for review prior to receiving the authorization to apply magnetic resonance imaging in conjunction with radiation therapy.

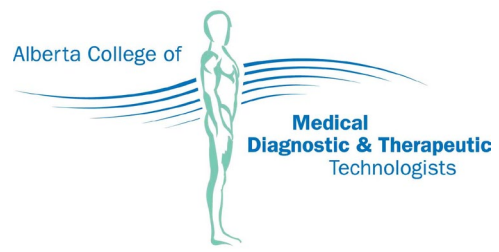
Submit the full package, including the following completed documents:

- completed Additional and Enhanced Practice Authorization Application
- proof of successful completion of the academic component
- proof of successful completion of the clinical component

Submit to:

Registrar
Alberta College of Medical Diagnostic and Therapeutic Radiation therapists
Suite 800, 4445 Calgary Trail
Edmonton AB T6H 5R7

E| info@acmdtt.com



Applicant Information

Name: _____

ACMDTT #: _____

Address: _____

Email: _____

Phone #: _____

Practicum Information

Facility: _____

Department(s): _____

Primary Clinical Supervisor: _____

Email: _____

Phone #: _____

Start Date: _____

End Date: _____

Proficiency Assessment

Performance expectations

The applicant who is placed in the clinical environment will be assessed according to the following performance expectations:

Application of theoretical knowledge

1. adheres to high standards of magnetic resonance imaging safety while performing procedures
2. accurately interprets the procedure order
3. accurately and independently produce images
4. provides for accurate patient procedure in an orderly progression of tasks
5. ensures operational readiness of equipment for a procedure/study
6. determines and selects optimal factors based on individual case variables
7. accurately critiques the magnetic resonance images which are produced
8. correctly performs quality control procedures according to manufacturers' operational standards
9. exemplifies a strong understanding of professional and regulatory standards of practice

Patient relationships

1. identifies self and explains the provider's role
2. confirms the identity of the patient
3. demonstrates respect for patients' rights to make choices and to be fully informed
4. responds appropriately and in a timely manner to all patient inquiries
5. protects the patient's confidentiality and takes measures to ensure patient privacy
6. demonstrates sensitivity when dealing with diverse patient populations
7. provides accurate information and checks for understanding

Work team relationships

1. supports the work of the team and shares the workload equitably
2. demonstrates a willingness to learn from various members of the team
3. displays efforts which are clearly focused and on task
4. exemplifies communication that is meaningful and relevant to the work
5. demonstrates flexibility in changing routines
6. seeks and responds appropriately to feedback

Program Sequencing

The radiation therapist must complete the foundational didactic requirements in MR in RT before commencing the clinical component.

Criteria for competence

By having verifiable competence in these documented procedures of the clinical component, it is imperative that the radiation therapist has demonstrated, through independent actions, the ability to perform magnetic resonance imaging in conjunction with radiation therapy.

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Clinical timeframe

In completing this program, the radiation therapist is expected to spend a minimum of 10-15 hours over 4 weeks (37.5 hours per week) in a virtual lab and in person. This may be on an MR Linac, MR Brachytherapy, or an MR Simulation unit in whole or a combination of experience. Radiation therapists will record the hours worked in these areas on the *Practicum log*.

I. Competency List

Signing Authority for Verification of Achievement

The following are authorized to attest to the clinical competencies achieved by the applicant:

- Radiation therapist authorized to perform *integration of MRI into Radiation Therapy* for a minimum of a consecutive 12 months.
- Medical Physicist proficient in the workings of MR in Radiation Therapy environment.

Questions regarding the appropriateness of supervision should be directed to the College.

Name of Verifier	Current Position	Email	Signature

Verification of Successful Completion

Radiation Therapist Verification

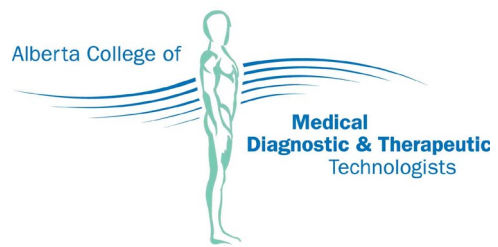
I verify that I have successfully completed all aspects of the MR-intergrated Radiation Therapy Training Program offered by the University of Toronto.

Applicant Signature

Date

Signature of RT Supervisor or Clinical Educator

Date



www.acmdtt.com