Jurisprudence
Module 1 – Legislation

In this module you will learn about

- Who makes the legislation that governs health matters
- Legislation that directly impacts the practice of medical radiation and imaging technology
- *The Regulated Health Professions Act* (RHPA), including
    - Controlled acts model
    - Risk of harm clause
- *The Medical Radiation and Imaging Technology Act* (MRIT Act), including
    - Scope of practice of medical radiation and imaging technologists
    - Controlled acts authorized to medical radiation and imaging technologists
    - Restricted titles that only registrants of the CMRITO can use
    - Regulations under the MRIT Act, including
        - Registration
        - Quality assurance
        - Professional misconduct
- What is a regulatory college and how it differs from an association
- Objects of the College
- College committees and their functions
- *The Healing Acts Radiation Protection Act* (HARP Act), including

    - Who may order ionizing radiation
    - Who may apply ionizing radiation
    - X-ray Safety Code
- *The Nuclear Safety and Control Act* (NSC Act)

Resources to include with Module 1

- *Regulated Health Professions Act, 1991*
  http://www.ontario.ca/laws/statute/91r18
- *Medical Radiation and Imaging Technology Act, 2017*
  https://www.ontario.ca/laws/statute/17m25
- *Health Arts Radiation Protection Act*
  http://www.ontario.ca/laws/statute/90h02
- X-Ray Safety Code (found in HARP Act)
  http://www.ontario.ca/laws/statute/90h02
- *Nuclear Safety and Control Act*
  http://laws-lois.justice.gc.ca/eng/acts/N-28.3/index.html
- *What you must know about … professional accountability*
  https://www.cmrito.org/pdfs/wymkas/professional-accountability.pdf

Jurisprudence
Module 1 – Legislation

Introduction

In Canada, our law comes from two main sources: the common law and statutory law. Courts develop the common law through their decision-making. When a judge makes a decision, it becomes part of the common law. Statutory law consists of the legislation and regulations created by government.

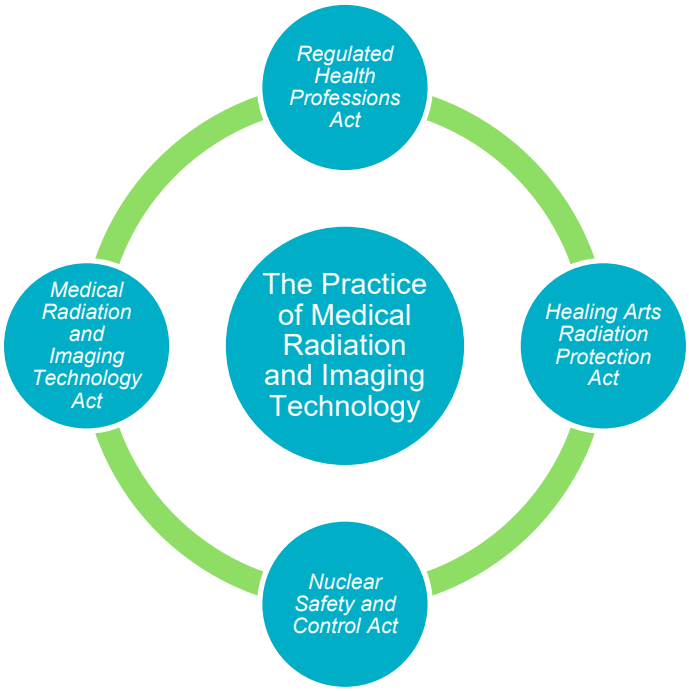
Common Law

Statutory Law
(Federal and Provincial)

There are two levels of government in Canada. The federal government, or Government of Canada, creates legislation on matters of national concern. The provincial government, or Government of Ontario, creates legislation on matters of provincial concern. Both levels of government can create “statutes” which are often called “Acts.” These statutes interact with and are influenced by the common law, which is made by judges.

In Canada, the regulation of health care professionals, including medical radiation and imaging technologists, is a matter of provincial concern. This is why the regulation of health care professionals differs from province to province. Each province deals differently with the regulation of health professions. In Ontario, health professionals are self-regulated.

Even though health care is a matter of provincial concern, health care professionals are still required to comply with federal legislation – or Acts created by the government of Canada. Therefore, the practice of medical radiation and imaging technology is governed by *both* provincial and federal laws.



The College of Medical Radiation and Imaging Technologists of Ontario (CMRITO) operates primarily under two pieces of provincial legislation: the *Regulated Health Professions Act, 1991* (RHPA) and the *Medical Radiation and ImagingTechnology Act, 2017* (MRIT Act). The RHPA and the MRIT Act determine how the practice of medical radiation and imaging technology is regulated in Ontario. The RHPA, passed in 1991, contains provisions regarding permitted actions and processes applicable to *all* regulated health professionals in Ontario – not just registrants of the CMRITO. The MRIT Act, on the other hand, contains a scope of practice statement and controlled acts authorized to registrants of the CMRITO, as well as provisions and regulations specific to the profession.

Although the RHPA and the MRIT Act will be the focus of this module, the *Healing Arts Radiation Protection Act* (HARP Act) and *Nuclear Safety and Control Act* (NSC Act) will also be discussed.

Although not directly applicable to the practice of medical radiation and imaging technology, there are other pieces of legislation which are relevant to the practice of the profession, such as: the *Public Hospitals Act*, the *Independent Health Facilities Act*, the *Occupational Health and Safety Act*, the *Personal Health Information Protection Act*, and the *Human Rights Code* (Ontario). A registrant's employer should provide more information regarding any specific legislative requirements for practice in a particular employment setting, such as a hospital or an independent health facility (IHF).

In this module, you will learn about the legislation that governs the practice of medical radiation and imaging technology in the province of Ontario. It can be confusing to understand how the legislation fits together. The flow chart below is meant to assist you in learning how the statutes interact. Statutes that are related to each other are marked with the same colour. All statutes are connected because they all apply to the practice of medical radiation and imaging technology. For a more in depth flow chart, see Appendix B “Legislation at a Glance”.

The *Regulated Health Professions Act* (RHPA)

Applies to all regulated health professions, including the practice of medical radiation and imaging technology. The RHPA sets out the controlled acts and the composition of health regulatory colleges.

The *Medical Radiation and Imaging Technology Act* (MRIT Act)

Each health profession regulated under the RHPA has its own profession specific act. For the practice of medical radiation and imaging technology, the profession specific act is the MRIT Act. The MRIT Act sets out the controlled acts registrants are authorized to perform and a registrant’s scope of practice.

Regulations of the MRIT Act

Statutes confer the authority to make Regulations. There are regulations under the MRIT Act that deal with registration, professional misconduct, QA and advertising.

The *Healing Arts Radiation Protection Act* (HARP Act)

Applies to the practice of medical radiation and imaging technology because the HARP Act regulates the use of x-ray machines for the irradiation of a human being for diagnostic or therapeutic purposes.

The X-Ray Safety Code

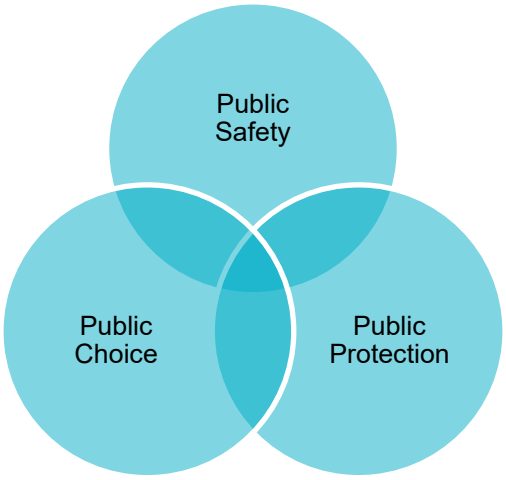
This Regulation of the HARP Act deals with x-ray safety, equipment and performance standards.

The *Nuclear Safety and Control Act* (NSC Act)

Applies to the practice of medical radiation and imaging technology because it regulates the possession and use of nuclear substances and other activities relating to nuclear energy. Therefore, it applies to the specialties of nuclear medicine and radiation therapy only.

The *Regulated Health Professions Act* (RHPA)

The Regulated Health Professions Act (RHPA) is provincial legislation which defines which health professions are regulated and how they are regulated. It sets out provisions for the functions of the health regulatory colleges, including registration, quality assurance and the complaints and discipline process. The RHPA is legislation designed to ensure public safety, consumer choice and accountability to the public. It provides protection to the public by requiring each health profession to develop standards of practice and entry to practice requirements for the profession to promote safe and high quality care, and by controlling certain health care procedures that could pose a danger to a patient or client. The purpose and goals of the RHPA are united by a common theme:



The RHPA provides for overall expectations for professional practice. Under the RHPA, regulated health professionals are expected to be:

- **Competent** means to have the necessary knowledge, skills and judgment to perform safely, effectively and ethically and to apply that knowledge, skill and judgement to ensure safe, effective and ethical outcomes for the patient.
- **Accountable** means to take responsibility for decisions and actions, including those undertaken independently and those undertaken as a member of a team.
- **Collaborative** means to work with other members of the health care team to achieve the best possible outcomes for the patient.

Section 27: The Controlled Acts Model

The scope of practice/controlled acts model is one of the main innovations under the RHPA. The controlled acts are fourteen (14) procedures, set out in section 27(2) of the RHPA, that are deemed to pose a risk of harm if performed by unqualified persons. The controlled acts model enhances public protection and choice by specifically identifying and controlling the performance of those procedures that pose risk of harm without giving any profession an exclusive or licensed area of practice. Instead, each profession has a scope of practice statement. Because there are no exclusive areas of practice, each profession has a unique practice statement which describes (a) what the profession does and (b) the method it uses.

These 14 controlled acts may only be performed by health care professionals who (a) are authorized to perform that act under their profession specific legislation or (b) have been delegated the authority to perform that act by another regulated health professional who is authorized to perform that act.

Though procedures that are controlled acts are authorized for specific health professions, procedures that are not controlled are in the "public domain". This means that they may be performed by regulated or unregulated individuals, unless it is reasonably foreseeable that serious bodily harm may result from the treatment or advice. For example, the electrocardiogram (ECG) examination is not a controlled act as defined in the RHPA. Therefore, it may be performed by both regulated professionals (for example, nurses and respiratory therapists) and unregulated individuals (for example, ECG technicians).

Registrants of the CMRITO are authorized to perform five of the fourteen controlled acts under the MRIT Act – a statute that will be discussed in detail later in this module. Since registrants are authorized to perform these controlled acts, they are referred to as "authorized" acts. These acts are:

1. Administering substances by injection or inhalation.
2. Tracheal suctioning of a tracheostomy.
3. Administering contrast media, or putting an instrument, hand or finger,
    a. Beyond the opening of the urethra,
    b. Beyond the labia majora,
    c. Beyond the anal verge, or
    d. Into an artificial opening of the body.
4. Performing a procedure on tissue below the dermis.
5. Applying a prescribed form of energy.

Practical examples of these authorized acts in the practice of medical radiation and imaging technology include:

1. Administering substances by injection or inhalation: *includes an intravenous, subcutaneous or intramuscular injection; starting peripheral intravenous lines; or establishing saline locks for the purpose of administering substances, such as radiopharmaceuticals or contrast media.*

2. Tracheal suctioning of a tracheostomy: *Tracheostomy suctioning to remove thick mucus and secretions from the trachea and lower airway that are not able to be cleared by the patient coughing*
3. Administering contrast media, or putting an instrument, hand or finger,
    a. Beyond the opening of the urethra: *inserting a urinary catheter for voiding cystourethrography to demonstrate the backwards flow of urine from the bladder into the kidneys*.
    b. Beyond the labia majora: *inserting a vaginal marker for radiation therapy or inserting a transducer for transvaginal ultrasound*.
    c. Beyond the anal verge: *inserting an enema tip into the rectum for a barium enema procedure or a transducer for a transrectal ultrasound*.
    d. Into an artificial opening of the body: *administering contrast into a J-tube to assess placement of a feeding tube.*
4. Performing a procedure on tissue below the dermis: *taking a blood sample for the purpose of assessing effective renal plasma flow or tattooing for radiation therapy skin marking*.
5. Applying a prescribed form of energy: *under the RHPA, the prescribed forms of energy that members are authorized to apply are electromagnetism for magnetic resonance imaging and soundwaves for diagnostic medical sonography. The application of other forms of energy used in other specialties of medical radiation and imaging technology are governed by other legislation. For example, the use and application of ionizing radiation is governed by the HARP Act, and the use and application of nuclear substances is governed by the Nuclear Safety and Control Act.*

The MRIT Act states that a registrant can only perform authorized acts 1 – 4 on the order of a physician and while practicing the profession, and act 5 on the order of a physician or a member of another College who is authorized to order the procedure and while in the course of practicing the profession. The performance of these authorized acts will be discussed later in this module.

Section 30: Risk of Harm Clause

Section 30, subsection 1 of the RHPA contains the following clause, known as a risk of harm clause. This clause states that:

> "*No person, other than a member treating or advising within the scope of practice of his or her profession, shall treat or advise a person with respect to his or her health in circumstances in which it is* ***reasonably foreseeable that serious bodily harm may result*** *from the treatment or advice or from an omission from them*."

This means that whether or not a procedure is a controlled act, if a person who is not a member of a regulated health profession provides advice or treatment from which serious bodily harm could result, it is a contravention of the RHPA. In addition, if a member of a regulated health profession provides advice or treatment from which serious bodily harm could result and the

advice or treatment is outside the scope of practice for the profession, this is also a contravention of the RHPA.

Exceptions

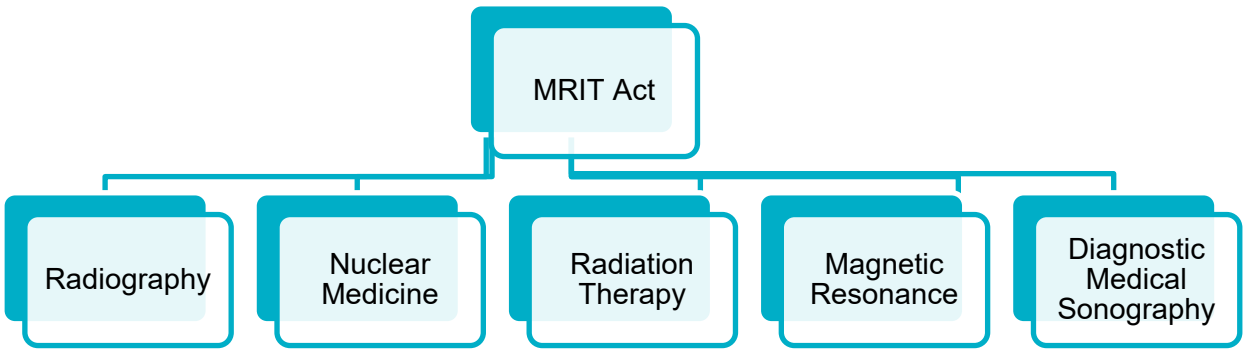
Subsection 5 states: Subsection 1 does not apply with respect to anything done by a person in the course of,

(a) rendering first aid or temporary assistance in an emergency;
(b) fulfilling the requirements to become a member of a health profession if the person is acting within the scope of practice of the profession under the supervision or direction of a member of the profession;
(c) treating a person by prayer or spiritual means in accordance with the tenets of the religion of the person giving the treatment;
(d) treating a member of the person's household; or
(e) assisting a person with his or her routine activities of living.

The *Medical Radiation and Imaging Technology Act* (MRIT Act)

Under the RHPA, each health profession has its own Act. For medical radiation and imaging technology, the profession-specific Act is the *Medical Radiation and Imaging Technology Act* (MRIT Act). The CMRITO operates under the MRIT Act, along with the RHPA. Like the RHPA, the MRIT Act has a number of regulations which set out the practice of registrants.

As outlined in the MRIT Act and regulations, there are five specialties under the mandate of the CMRITO: radiography, nuclear medicine, radiation therapy, magnetic resonance and diagnostic medical sonography



Scope of Practice

In the MRIT Act, the scope of practice statement for registrants of the CMRITO is as follows:

> "*The practice of medical radiation and imaging technology is the use of ionizing radiation, electromagnetism, soundwaves and other prescribed forms of energy for the*

purposes of diagnostic and therapeutic procedures, the evaluation of images and data relating to the procedures and the assessment of an individual before, during and after the procedures."

The scope of practice statement identifies what can be expected of registrants of the CMRITO in practice. All five specialties have the same scope of practice.

Performance of an Authorized Act

Of the 14 controlled acts set out by the RHPA, registrants of the CMRITO are permitted to perform five (5). These five authorized acts are outlined by the MRIT Act. In order to perform the controlled acts authorized to registrants, certain conditions must be met.

1. For authorized acts 1 to 4, there must be an order from a physician;
2. For authorized act 5 (applying a prescribed form of energy, either electromagnetism for the purpose of magnetic resonance imaging or soundwaves for the purpose of diagnostic medical sonography), there must be an order from a physician or a member of another College who is authorized to order the procedure;
3. The authorized act can only be performed in the course of engaging in the practice of medical radiation and imaging technology;
4. A registrant must not perform procedures (including authorized acts) contrary to terms, conditions or limitations placed on their certificate of registration; and
5. A registrant must be competent to perform the authorized act in light of the circumstances of the situation.

All five specialties have the same authorized acts.

Restricted Titles

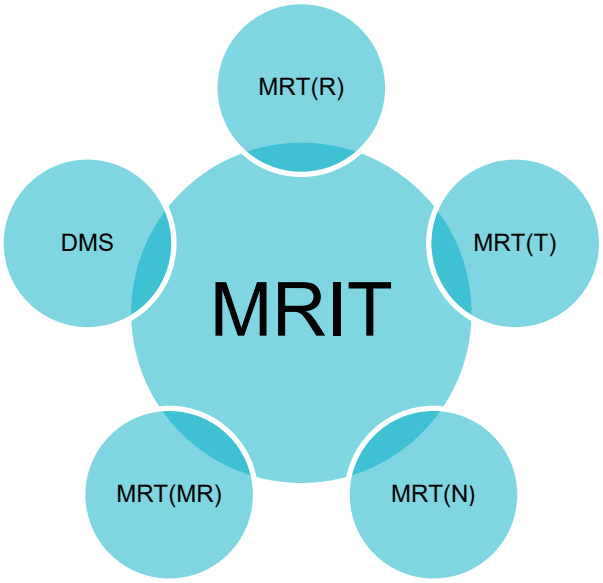
Restricted titles are an important part of public protection and choice. Just as only a member of the College of Physicians and Surgeons of Ontario can use the protected title "physician," only registrants of the CMRITO can use the title "medical radiation technologist" and "diagnostic medical sonographer". The use of these titles assures patients that the technologist who provides medical radiation and imaging technology services to them is (a) registered with the College and (b) is qualified to practise.

Section 9(1) of the MRIT Act states that "*no person other than a member [of the CMRITO] shall use the title "medical radiation and imaging technologist," "diagnostic medical sonographer," "radiological technologist," radiation therapist," "nuclear medicine technologist," "magnetic resonance technologist," or a variation or abbreviation [such as "MRT"] or an equivalent in another language*."

Ontario Regulation 866/93, as amended, made under the MRIT Act, which governs registration of CMRITO registrants, also states that a registrant who uses an abbreviation for the title "medical radiation technologist" may use the abbreviation "MRT". There are also abbreviations

for each of the five specialties. A registrant who holds a specialty certificate of registration listed in the first column of the table below may use the title and abbreviations set out in the second and third columns of the table.

Specialty	Title	Abbreviation
Radiography	Medical Radiation Technologist – Radiography	MRT(R)
Radiation Therapy	Medical Radiation Technologist – Radiation Therapy; or Medical Radiation Technologist – Radiation Therapist	MRT(T)
Nuclear Medicine	Medical Radiation Technologist – Nuclear Medicine	MRT(N)
Magnetic Resonance	Medical Radiation Technologist – Magnetic Resonance	MRT(MR)
Diagnostic Medical Sonographer	Diagnostic Medical Sonographer	DMS



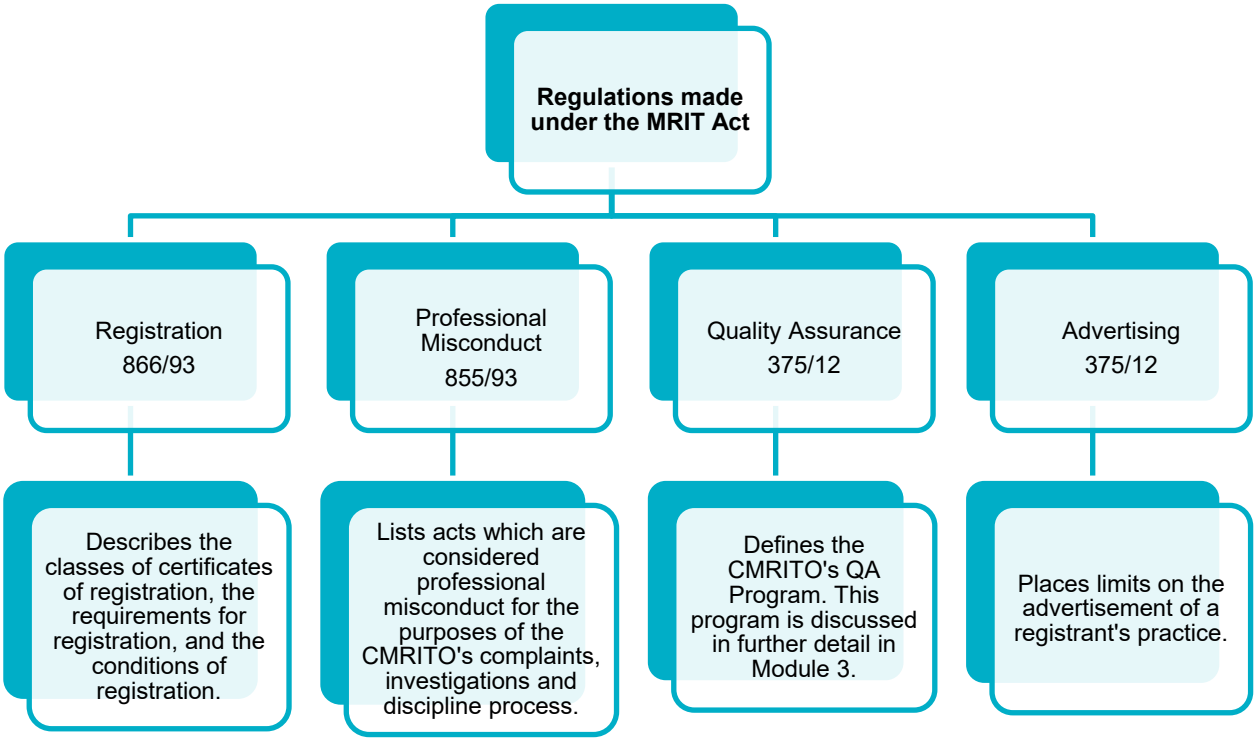
Once a person has fulfilled all the requirements for registration with the CMRITO and has paid the annual registration fee, they will be issued a specialty certificate of registration and will be able to use the appropriate title for that specialty. If a registrant resigns from the CMRITO, they are **no longer able** to practise as a medical radiation and imaging technologist or use the title until they are reinstated as a registrant of the CMRITO.

Section 9(2) of the MRIT Act states that, "*no person other than a member shall hold himself or herself out as a person who is qualified to practise in Ontario as a medical radiation and imaging technologist or in a specialty of medical radiation and imaging technology*."

This provision, combined with the requirements of the HARP Act (which will be discussed later in this module) means that it is **mandatory** to be a registrant of the CMRITO in order to practise as a medical radiation and imaging technologist in Ontario.

Regulations Made Under the MRIT Act

The regulations currently made under the MRIT Act govern registration, professional misconduct, quality assurance programming, and advertising. For a brief explanation of these four regulations, please see the following diagram:



Ontario Regulation 866/93: Registration with the CMRITO

Registrants must renew their registration with the CMRITO **annually**. The annual renewal of registration for CMRITO registrants, including payment of the annual fee for renewal, is due on their birthday. The CMRITO sends a notice to each registrant at least 30 days before their birthday. A registrant has an obligation to pay the annual fee even if they fail to receive this notice. The annual renewal process requires registrant to attest to a number of requirements for registration, including a Declaration of Conduct, Quality Assurance Declaration and a Declaration of Compliance online. It is the responsibility of the registrant of the CMRITO to pay the annual fee for renewal and to complete the annual renewal of their registration on or before the registrant's birthday every year. If a registrant does not pay the annual fee for renewal within three months of their birthday, then their certificate of registration will be **suspended**.

Prior to being issued a certificate of registration, all applicants to the CMRITO must meet the requirements as set out in the registration regulation, as amended. The non-exemptible requirements include:

1. Completing an approved program in medical radiation and imaging technology or a program that is equivalent to an approved program; or a program that is considered by the Registration Committee to be substantially similar to an approved program, and;
2. Completing an approved examination. The CMRITO-approved examinations are the certifying examinations of the Canadian Association of Medical Radiation Technologists (CAMRT) in the specialties of radiography, magnetic resonance, nuclear medicine and radiation therapy, and the Sonography Canada examination in an area of practice of diagnostic medical sonography. All applicants must have successfully completed the approved examination in their specialty prior to being issued a certificate of registration. Applicants that are relocating from another Canadian province could become registered once they have provided evidence of meeting the requirements for registration or the requirements for registration in accordance with the labour mobility provisions of the RHPA. The requirements that a labour mobility applicant must meet are set out in the registration regulation. Further information on the application process can be found on the CMRITO website at www.cmrito.org.

For the full text of the MRIT Act, please consult the Government of Ontario's website at: https://www.ontario.ca/laws/statute/17m25.

What is a College?

All health professions regulated under the RHPA are governed by Colleges. The College of Medical Radiation and Imaging Technologists (CMRITO) governs the profession of medical radiation and imaging technology in the province of Ontario. In Ontario, there are several professional associations to which registrants of the CMRITO may belong – the Canadian Association of Medical Radiation Technologists (CAMRT) and its provincial affiliate, the Ontario Association of Medical Radiation Sciences (OAMRS) and Sonography Canada. These associations must not be confused with the College, as they have very different mandates from that of the CMRITO. In general, Colleges work to protect the public interest, whereas associations work to advance the interests of their members. For an in-depth comparison of the CMRITO to the associations, see the following diagram:

College of Medical Radiation and Imaging Technologists of Ontario (CMRITO)	
	Operates under a legislated mandate (RHPA and MRIT Act)
	Protects the public interest through self-regulation of the profession
	Registration is mandatory - you must be a registrant in order to practise the profession of medical radiation and imaging technology in Ontario
	Only current registrants of the CMRITO registered in the corresponding specialty can use the professional titles of MRT(T), MRT(R), MRT(N), MRT(MR), or DMS
Canadian Association of Medical Radiation Technologists (CAMRT)	
	Does not operate under any legislated mandate and is not required to report to government
	Provides services to members
	Supports the advancement of the profession
	Administers the national certification examinations which the CMRITO Council approved as the entry to practice examinations
	Membership is voluntary - you do not have to be a member to practise the profession
	Professional titles and designations used may differ from those used by the CMRITO
	In collaboration with its provincial counterparts, CAMRT provides CMRITO members with professional liability insurance
Ontario Association of Medical Radiation Sciences (OAMRS)	
	Does not operate under any legislated mandate and is not required to report to government
	Provides services to members
	Supports the advancement of the profession
	Membership is voluntary - you do not have to be a member to practise the profession
	In collaboration with CAMRT, OARMS provides members of CMRITO with professional liability insurance
Sonography Canada	
	Does not operate under any legislated mandate and is not required to report to government
	Provides services to members
	Supports the advancement of the profession
	Administers the national certification examinations which the CMRITO Council approved as the entry to practice examinations
	Membership is voluntary - you do not have to be a member to practise the profession
	Professional titles and designations used may differ from those used by the CMRITO
	Provides CMRITO members with professional liability insurance

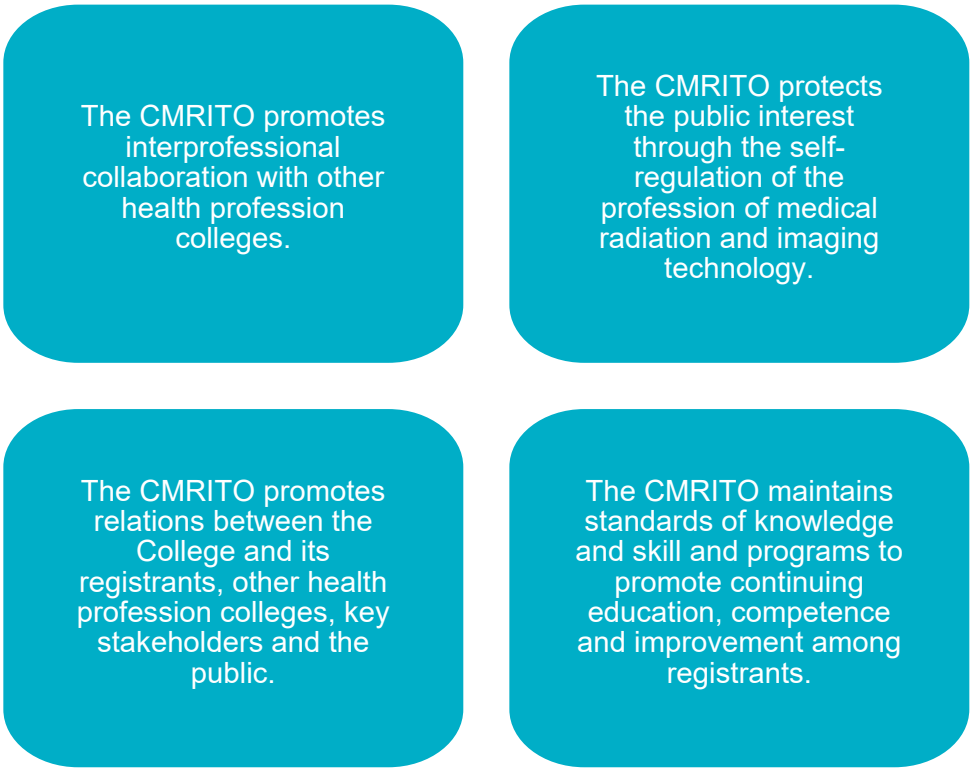
The RHPA establishes the mandate and objects of all regulatory colleges. These objects make the College responsible for regulating the practice of the profession and for ensuring that registrants of the College are practising the profession according to the standards and requirements of the College. The College also has an obligation to assist members of the public in exercising their rights under the Code and RHPA, such as filing a complaint against a registrant. **Above all, the College has a duty, in carrying out its objects, to serve and protect the public interest**.

The mission statement of the CMRITO is as follows:

> "*The mission of the CMRITO is to regulate the profession of medical radiation and imaging technology to serve and protect the public interest.*"

The CMRITO determines which applicants are qualified to practise medical radiation and imaging technology and registers only those who meet certain requirements. These requirements are set out in the registration regulation made under the MRIT Act and any other applicable laws. For more information, see the Registration Requirements section of the CMRITO website. Registrants are expected to practise in accordance with the Standards of Practice approved by the CMRITO. The CMRITO has a complaints and discipline procedure to deal with complaints from the public about a registrant who is not practising professionally or in accordance with the standards of practice of the profession.

The following diagram outlines some of the other objectives of the CMRITO:



Role of Council

The Council acts as the board of directors of the CMRITO and is responsible for managing and administering its affairs. The Council is responsible for regulating the profession of medical radiation and imaging technology in the public interest. It achieves this through policy-making, goal and priority setting, planning, decision-making, and oversight.

Apart from outlining the objects of the College, the RHPA states that each health profession College must have certain statutory committees. The following chart outlines the statutory committees in place at the CMRITO, as required under the RHPA. A brief description of the function of each committee is included:

Committee	Function
Executive Committee	Functions as the Council between meetings of Council. The Executive Committee has all the powers of the Council except the power to make, amend or revoke a regulation or by-law.
Registration Committee	Reviews applications for registration which have been referred to the committee by the Registrar. For the CMRITO, a panel of the Registration Committee reviews all applications for registration filed by applicants trained outside of Canada and any applicants where the Registrar has concerns about whether the applicant meets all the requirements for registration.
Inquiries, Complaints and Reports Committee (ICR Committee)	Investigates complaints and considers investigation reports filed with the Registrar regarding the conduct or actions of a registrant of the CMRITO. After investigating, a panel of the ICR Committee may determine to refer allegations of the registrant's professional misconduct or incompetence to the Discipline Committee for a hearing; refer the registrant to an inquiry panel for incapacity proceedings; require the registrant to appear before the panel to be cautioned; require the registrant to complete a specified continuing education or remediation program; or take no further action. Inquiry panels make inquiries where registrants may have physical or mental conditions. Where necessary, inquiry panels may refer allegations of a registrant's incapacity to the Fitness to Practise Committee for a hearing.
Discipline Committee	Conducts hearings into allegations of professional misconduct or incompetence by registrants. If a panel of the Discipline Committee finds that a registrant has committed an act of professional misconduct, the panel may impose penalties upon the registrant including: a fine of up to $35,000, payable to the Minister of Finance; a reprimand; terms, conditions or limitations on a registrant's certificate of registration; a suspension or revocation of the registrant's certificate of registration.
Fitness to Practise Committee	Conducts hearings into allegations of incapacity regarding registrants which have been referred by a panel of the ICRC. If a panel of the Fitness to Practise Committee finds that a registrant is incapacitated, the panel may do one or more of the following: revoke or suspend the

	registrant's certificate of registration; or impose terms, conditions and limitations on the registrant's certificate of registration.
Quality Assurance Committee	Administers the College's Quality Assurance Program. The goal of the program is to assure the public of the quality of practice of the profession and to promote continuing competence and continuing quality improvement among registrants. The Quality Assurance Committee evaluates the quality assurance records of registrants and requires registrants to participate in assessments of their practice Module 3 discusses the CMRITO Quality Assurance Program in more detail.
Patient Relations Committee	Responsible for the College's Patient Relations Program which must include measures for preventing or dealing with sexual abuse of patients. It also administers a program to provide funding for therapy and counselling for persons who, while patients, were sexually abused by registrants. Module 6 provides more information about the CMRITO's Sexual Abuse Prevention Program.

The activities of the College Council and each of the Statutory Committees are reported to the Ontario Minister of Health each year in the College's annual report. For more information, please consult the annual report on the CMRITO website at www.cmrito.org.

The Health Professions Procedural Code

The Health Professions Procedural Code (the "Code") is Schedule 2 of the RHPA and is a part of each health profession Act. The Code governs College processes and is common to all RHPA Colleges. The Code deals with the following:

- The duty and objects of the College
- Registrar's power of investigation
- Quality Assurance Committee
- Registration
- Complaints and Reports
- Discipline
- Incapacity
- Appeals to court

For the full text of the RHPA, please consult the Government of Ontario's website at: https://www.ontario.ca/laws/statute/91r18.

The Healing Arts Radiation Protection Act (HARP Act)

The *Healing Arts Radiation Protection Act* (HARP Act) is provincial legislation which regulates the use of x-ray machines for the irradiation of a human being for diagnostic or therapeutic purposes. The HARP Act and Regulations apply to all MRT(R)s and MRT(T)s, as well as to MRT(N)s who are operating equipment using an x-ray source, such as bone densitometry units or x-ray tubes in SPECT/CT. The HARP Act determines the qualifications for persons who are

allowed to order x-ray procedures and those persons who are allowed to operate x-ray machines (including CT scanners) used to irradiate human beings.

The HARP Act was enacted in response to a growing public concern in the late 1970s about exposure to x-rays. The HARP Act and its regulations aim to protect patients by minimizing radiation exposure and by ensuring that a radiological image of good quality is provided. Section 5 of the HARP Act defines who is authorized to operate an x-ray machine for the purpose of irradiating a human being. CMRITO registrants are among the persons qualified to operate x-ray machines to irradiate humans. A person is prohibited from operating an x-ray machine to irradiate a human being unless the irradiation has been ordered by a person who holds the qualifications set out in the HARP Act. Similarly, a person is prohibited from operating an x-ray machine to irradiate a human being unless the person meets the qualifications set out in the HARP Act or prescribed regulations under the HARP Act.

Persons Qualified to Apply Ionizing Radiation to Humans
(Section 5 of the HARP Act)

- A registrant of the College of Medical Radiation and Imaging Technologists of Ontario, who holds a specialty certificate in either radiography, nuclear medicine, or radiation therapy
- A legally qualified medical practitioner
- A member of the Royal College of Dental Surgeons of Ontario
- A member of the College of Chiropractors of Ontario
- A member of the College of Chiropodists of Ontario (with conditions)
- A member of the College of Dental Hygienists of Ontario

Persons Qualified to Prescribe Ionizing Radiation to Humans
(Section 6 of the HARP Act)

- A legally qualified medical practitioner
- A member of the Royal College of Dental Surgeons of Ontario
- A member of the College of Chiropractors of Ontario
- A member of the College of Chiropodists of Ontario (with conditions)
- A registered nurse who holds an extended class certificate of registration [RN(EC)] with the College of Nurses of Ontario, with certain restrictions

For the full text of the HARP Act, please consult the Government of Ontario's website at: https://www.ontario.ca/laws/statute/90h02.

The RHPA and the HARP Act

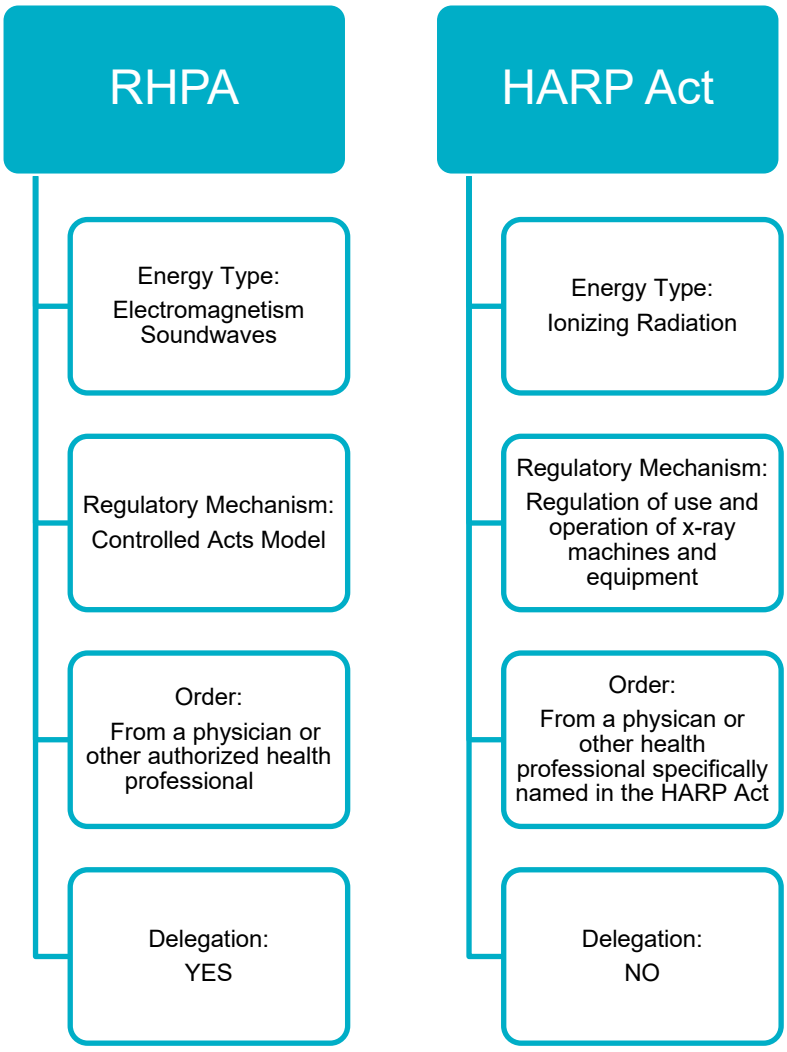
Both the RHPA and the HARP Act govern registrant practice. Both regulate applying or ordering the application of energy. However, they deal with different types of energy: the RHPA deals with energy as defined under its regulations (i.e. electromagnetism for the purpose of magnetic resonance imaging and soundwaves for the purpose of diagnostic medical sonography) and the HARP Act deals with **ionizing radiation**.

No person, even a qualified person, may irradiate a human being unless the x-ray machine meets the standards set out in the regulations under the HARP Act.

As you will recall from earlier in this Module, controlled act 7 under the RHPA is “applying or ordering the application of a form of energy prescribed by the regulation”. For the purposes of this controlled act, the prescribed form of energy that registrants of the CMRITO are authorized to apply are **electromagnetism** for magnetic resonance imaging and **soundwaves** for diagnostic medical sonography. Ionizing radiation is **not** a prescribed form of energy under the RHPA because it is regulated under the HARP Act and other legislation. The manner in which the HARP Act regulates the ordering and application of ionizing radiation is through the regulation of the use and operation of x-ray machines and equipment. As a result, the application or ordering of the application of ionizing radiation is not a controlled act procedure – nor is it referred to in these terms.

Therefore, when looking at the list of controlled acts authorized to registrants you will not see the application of ionizing radiation. However, for practical purposes, the rules governing registrants who apply ionizing radiation are similar to those governing the performance of controlled act procedures and the application of electromagnetism for MRI and soundwaves for diagnostic ultrasound: all require an order from an authorized health professional. In the case of applying ionizing radiation under the HARP Act, a registrant of the CMRITO needs an order from a physician or other health professional specifically named in section 6 of the HARP Act. Failure to obtain a proper order constitutes professional misconduct under the MRIT Act.

There is one notable difference between the RHPA and the HARP Act. Under the RHPA, controlled acts can be performed if they have been properly delegated. There is no such provision under the HARP Act. Therefore, ionizing radiation can only be applied by those who are specifically named in the HARP Act.



Regulations under the HARP Act: the X-Ray Safety Code

The X-Ray Safety Code is a regulation under the HARP Act dealing with x-ray safety, equipment and performance standards. Its objective is to ensure that x-ray facilities have x-ray machines which are safe for the patient. It achieves this by requiring regular testing and reporting of test results of x-ray machines and equipment. It also requires that an x-ray machine be installed appropriately by requiring prior approval for the installation of an x-ray machine.

The X-Ray Safety Code deals with, among other things, three distinct areas:

1. Equipment
    - The X-Ray Safety Code sets minimum standards for the design and function of x-ray machines.
    - The HARP Act prohibits a person from operating an x-ray machine unless the machine meets the standards under the X-Ray Safety Code.

2. Quality Control
    - The maintenance of equipment standards must be assured by a clinic or department program of quality control.
    - The X-Ray Safety Code lists specific parameters which must be tested on x-ray machines and processing equipment, and sets the frequency with which the tests must be performed.
3. Patient Exposures
    - A department or clinic's quality control program must include measures related to patient entrance exposures for radiography and fluoroscopy.
    - The Code also defines maximum patient exposure doses for particular diagnostic x-ray examinations.

The Radiation Protection Officer

The HARP Act also requires the appointment of a radiation protection officer (RPO) at any facility operating an x-ray machine. The RPO is responsible for ensuring compliance with the regulations made under the HARP Act. The RPO must ensure that required testing is performed and quality control records kept, that personnel who operate x-ray equipment are qualified and that lead aprons and shielding are available for use by staff and patients. The RPO is also responsible for reporting any accidents or serious situations involving x-rays to the Director of X-Ray Safety of the Ministry of Health and Long-Term Care. In the event of either (a) an accident involving an x-ray machine or (b) an overexposure to radiation involving a patient or patients, the RPO must ensure that a written report concerning the accident or overexposure is received by the Director no later than five (5) days after the occurrence of the incident.

Under the HARP Act, it is required that the RPO be a physician. However, the RPO is not to be confused with the Radiation Safety Officer (RSO), who can be any person – including a registrant of CMRITO who applies ionizing radiation to their practice – as appointed by each health care institution. The RSO receives additional training in order to fulfill their role as RSO, as required by the Canadian Nuclear Safety Commission (CNSC).

The Nuclear Safety and Control Act (NSC Act)

The *Nuclear Safety and Control Act* (NSC Act) is federal legislation to regulate the possession and use of nuclear substances and other activities relating to nuclear energy. Therefore, it is legislation which relates to the specialties of nuclear medicine and radiation therapy only.

With regard to nuclear medicine, the regulations cover the licensing of sites, the obligations of licensees, radiation safety issues, record keeping, and reporting structures and responsibilities. In nuclear medicine departments and clinics providing nuclear medicine procedures, the use of all radiopharmaceuticals and sealed radioactive sources are regulated by the NSC Act. Registrants working in nuclear medicine departments and such clinics should check the terms and conditions of the facility's license issued by the CNSC under the NSC Act for more information. However, as discussed above, bone densitometry units using an x-ray source are governed by the HARP Act.

With regard to radiation therapy, the regulations govern the use of cobalt teletherapy machines, the use of linear accelerator teletherapy units and the handling of brachytherapy sources. Registrants practising in radiation therapy should check the terms and conditions of the facility's license issued by the CSNC under the NSC Act for more information. A reminder is that CT units and fluoroscopy units are governed by the HARP Act.

For the full text of the NSC Act, please consult the Government of Canada's website at: https://laws-lois.justice.gc.ca/eng/acts/N-28.3/index.html.