



College of
Medical Radiation
Technologists of
Ontario

Ordre des
technologues en
radiation médicale
de l'Ontario

CMRTO Legislation Learning Package

Website Version

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CMRTO Legislation Learning Package

Introduction

Welcome to the Legislation Learning Package of the College of Medical Radiation Technologists of Ontario (CMRTO). This learning package has been developed to provide assistance to individuals who trained outside Ontario and are reviewing the legislation that governs the practice of medical radiation technology in Ontario, in order to complete the requirements to be registered with the CMRTO. In Ontario, the information provided in this learning package is taught in the undergraduate educational programs. If you trained outside Ontario, you will not have received this training; however, it is important for all members of the CMRTO to be familiar with the legislation and legal requirements which impact upon their day-to-day practice in medical radiation technology.

The Legislation Learning Package is designed as a guide to key components of the appropriate pieces of legislation that govern the practice of medical radiation technologists (MRTs) in Ontario. It is not intended as an in-depth analysis of the legislation. For more information, you should refer to the particular Act, regulation, guidelines or CMRTO publication which have been provided with this learning package. Some of this information can also be found on the CMRTO website at www.cmrto.org. In addition, the Legislation Learning Package is not intended as a definitive legal analysis of the legislation, nor to provide legal advice. You are advised to consult the actual legislation for specific wording and terminology and, where appropriate, seek legal advice.

The Legislation Learning Package does not discuss all pieces of legislation which pertain to your practice. Other legislation which may be relevant to the practice of MRTs includes the *Public Hospitals Act*, the *Independent Health Facilities Act*, the *Cancer Act*, the *Mental Hospitals Act*, the *Occupational Health and Safety Act*, and the *Human Rights Code (Ontario)*. You should contact your employer for more information regarding the specific legislative requirements for your practice in your particular employment setting.

The information contained in this learning package was current at the time of re-publication in August 2009; however, legislation is often changing and new legislation being developed. You should always ensure that you are dealing with the most recent version of a particular Act, regulation, or guidelines when reviewing your practice.

The course is divided into nine (9) modules. Most modules are required learning for MRTs in all four specialties: radiography, nuclear medicine, magnetic resonance and radiation therapy. Some modules are required learning only for MRTs who are practising in a particular specialty. A list of the topics covered in each module and the particular specialty to which each is applicable is provided below.

At the end of some modules, there is a short summary of the course material from the modules. Case studies are also provided to assist you in understanding the practical application of the course material.

If you are taking the course as a requirement for CMRTO registration, fill out the certificate when you have completed all the modules relevant to your particular specialty and mail or fax the completed certificate to the CMRTO. A [blank certificate](#) can be found at the end of the learning package.

Course Format

The required legislation is presented in nine (9) modules. Some modules are applicable to all four specialties – radiography, nuclear medicine, magnetic resonance and radiation therapy. Some modules are applicable only to specific specialties. Review only the modules relevant to the specialty in which you will be, or are currently, practising. You are encouraged to take your time as you progress through each module.

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Module 1

The Regulated Health Professions Act and Regulations

All specialties (radiography, nuclear medicine, radiation therapy and magnetic resonance)

Introduction

The [*Regulated Health Professions Act \(RHPA\)*](#) was passed in 1991 and came into effect in Ontario on December 31, 1993. The Act and the companion health profession Acts govern the practice of all the regulated health professions in Ontario. In Canada, the regulation of health care professions is under the jurisdiction of the provinces, not the federal (Canadian) government. The *RHPA* introduced a number of reforms that deal with public protection and participation in health care and with competence, accountability and evolution of regulated health professions.

The purpose of the legislation is:

- to increase the openness and responsiveness of the health care system
- to provide a regulatory system that allows consumers greater freedom to choose their health care providers
- to promote greater public participation in the regulation of the health care professions
- to improve the government's ability to co-ordinate health care policy by removing the previous patchwork of laws
- to promote and facilitate interprofessional collaboration

The main goals of the *RHPA* are quality care, openness, and consumer choice. These goals are achieved through:

- better protection from harm for the public
- greater public accountability of the regulatory colleges
- respect for consumers' right to choose their own health care providers from a range of safe options
- a more flexible regulatory system with elements of consistency for each profession.

When looking at the goals and purpose of the *RHPA*, you will see a common theme throughout—public safety, public protection and public choice. Although the legislation was designed with these intentions, it also provides many benefits to members of the health care professions. It opens doors for more communication among the different health care professions and for an increased role or scope of practice within professions. Still, it is important to remember that the *RHPA* is primarily intended to protect the public, not health care professionals.

Chief amongst the reforms introduced by the *RHPA* is the establishment of the scope of practice/controlled acts model, which is discussed later in this module.

The *RHPA* consists of two different parts: a Main Part and a Procedural Code. These parts apply to all the regulated health professions. In addition, there are 26 health profession Acts that apply to specific regulated professions. The health profession Acts set out the profession-specific provisions, such as the profession's scope of practice statement and authorized acts. The health profession Act for MRTs is the [Medical Radiation Technology Act \(MRT Act\)](#). This Act is discussed in more detail in Module 2.

The primary body responsible for administering the health profession Act and the Procedural Code of *RHPA* is the regulatory College of the profession. For MRTs, this is the College of Medical Radiation Technologists of Ontario (CMRTO). A list of the self-governing health professions in Ontario and their corresponding health profession Acts can be found in Schedule 1 of the *RHPA*.

The objects of the College

The *RHPA* establishes the mandate and objects of the regulatory Colleges. Section 3 of the Health Professions Procedural Code (Schedule 2 of *RHPA*) provides the following objects for the College:

- To regulate the practice of the profession and to govern the members in accordance with the health profession Act, this Code and the *Regulated Health Professions Act*, 1991 and the regulations and by-laws.
- To develop, establish and maintain standards of qualification for persons to be issued certificates of registration.
- To develop, establish and maintain programs and standards of practice to assure the quality of the practice of the profession.
- To develop, establish and maintain standards of knowledge and skill and programs to promote continuing evaluation, competence and improvement among the members.
- To develop, establish and maintain standards of professional ethics for the members.
- To develop, establish and maintain programs to assist individuals to exercise their rights under this Code and the *Regulated Health Professions Act*, 1991.
- To administer the health profession Act, this Code and the *Regulated Health Professions Act*, 1991 as it relates to the profession and to perform the other duties and exercise the other powers that are imposed or conferred on the College.
- To promote and enhance relations between the College and its members, other health profession colleges, key stakeholders, and the public.
- To promote inter-professional collaboration with other health profession colleges.
- To develop, establish, and maintain standards and programs to promote the ability of members to respond to changes in practice environments, advances in technology and other emerging issues.
- Any other objects relating to human health care that the Council considers desirable.

These objects make the College responsible for regulating the practice of the profession and for ensuring that members of the College are practising the profession according to the standards and requirements of the College. The College also has an obligation to assist individuals in exercising their rights under the Code and the *RHPA*, for example, filing a complaint against a member of the profession. In addition, the College must work to promote interprofessional collaboration in the profession and amongst regulatory bodies.

The *RHPA* also states that in carrying out its objects, the College has a duty to serve and protect the public interest.

Structure of the College

The Council of the College acts as the board of directors and manages and administers the affairs of the College. The Council is made up of members of the profession who are elected by the members of the profession and of members of the public who are appointed by the Lieutenant Governor in Council (Cabinet of the Ontario government). The mix of professional and public members on the College's Council is a key component of the College's public accountability. In addition, meetings of the College Council are open to the public (see the CMRTO website for more information). Other key responsibilities of the College Council include the election of the College President and the appointment of the College Registrar, who functions as the Chief Operating Officer of the College.

Under the *RHPA*, the College must have certain statutory committees. These committees are named statutory committees because the statute (law) requires each College to have these committees. The names of the committees and the primary function of each is listed below.

Executive Committee: The Executive Committee functions as the Council between the 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 CMRTO, a panel of the registration committee reviews all the applications for registration which have been filed by applicants who trained outside Canada. The panel determines if the applicant has met the requirements to become registered and may refuse to grant the applicant a certificate of registration or may order the applicant to meet certain requirements before a certificate of registration is issued.

Inquiries, Complaints and Reports Committee: investigates complaints and considers investigation reports filed with the Registrar regarding the conduct or actions of a member of the College. After investigating the complaint made against the member or considering the investigation report regarding a member, a panel of the Inquiries, Complaints and Reports Committee may determine to do one or more of the following: refer the allegation of the member's professional misconduct or incompetence to the Discipline Committee for a hearing; refer the member to an inquiry panel for incapacity proceedings; require the member to appear before the panel to be

cautioned; require the member to complete a specified continuing education or remediation program; or dismiss the complaint.

Discipline Committee: conducts hearings into allegations of professional misconduct or incompetence by members. If a panel of the Discipline Committee finds that a member has committed an act of professional misconduct, the panel may impose penalties upon the member including: a fine of up to \$35,000, payable to the Minister of Finance; a reprimand; terms, conditions or limitations on a member's certificate of registration; or suspension or revocation of the member's certificate of registration.

Fitness to Practise Committee: conducts hearings into allegations of incapacity regarding members which have been referred to the Fitness to Practise Committee by a panel of the Inquiries, Complaints and Reports Committee. If a panel of the Fitness to Practise Committee finds that a member is incapacitated, the panel may do one or more of the following: revoke the member's certificate of registration; suspend the member's certificate of registration; or impose terms, conditions and limitations on the member's certificate of registration.

Quality Assurance Committee: reviews submissions from members to ensure that members are maintaining their competence in the practice of the profession by participating in the College's Quality Assurance Program. It may also perform assessments of the member's practice and require that the member participate in a program designed to evaluate the knowledge, skill and judgement of the member. (Module 4 discusses the CMRTO Quality Assurance Program in more detail.)

Patient Relations Committee: is 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 members. (See Module 6 for more information on the CMRTO Sexual Abuse Prevention Program.)

The activities of the College Council and each of the Statutory Committees are reported to the Ontario Minister of Health and Long-Term Care each year in the College's [annual report](#).

Overall expectations for professional practice under the RHPA

Under the *RHPA*, regulated health professionals are expected to be:

Competent:

i.e. to have the necessary knowledge, skills and judgement to perform safely, effectively and ethically and to apply that knowledge, skill and judgement to ensure safe, effective and ethical outcomes for the patient. This means that MRTs must maintain current competence in their area of practice, to refrain from acting if not competent and take appropriate action to address the situation.

Accountable:

i.e. to take responsibility for decisions and actions, including those undertaken independently and collectively as a member of a team. This means that MRTs must accept the consequences of their decisions and actions and act on the basis of what they, in their clinical judgement, believe is in the best interests of the patient. MRTs must take appropriate action if they feel these interests are being unnecessarily and unacceptably compromised. This action may involve not implementing ordered procedures or treatment plans that, from the MRT's perspective, appear to be contraindicated, and taking appropriate action to address the situation. Module 5 discusses what MRTs should do if they are not competent to perform an authorized act.

Collaborative:

i.e. to work with other members of the health care team to achieve the best possible outcomes for the patient. This means MRTs are responsible for communicating and coordinating the patient's care with other members of the team and for taking the appropriate action to address gaps and differences in judgement about care provision.

Scope of practice/controlled acts model

The scope of practice/controlled acts model is one of the main reforms and innovations under the *RHPA*. This model enhances public protection and choice by specifically identifying and controlling the performance of those procedures that pose risk of harm (the 13 controlled acts), without giving any profession an exclusive or licensed area of practice. Instead, each profession has a scope of practice statement, which describes in general terms what the profession does. For example, the scope of practice statement for dietitians in Ontario ("The practice of dietetics is the assessment of nutrition and nutritional conditions and the treatment and prevention of nutrition-related disorders by nutritional means") is a description of what dietitians do. There is no provision in the legislation that prevents other professions or individuals (such as physicians, nurses, or weight-loss consultants) from advising patients or clients on nutritional issues, unless serious bodily harm could result from the treatment or advice.

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

In this model, therefore, controlled act procedures may be likened to "licensed" procedures because only persons authorized by a health profession Act or by delegation in accordance with *RHPA* may perform them. The scope of practice statements, however, are not "licensed", and elements of the scope of practice statements may overlap between professions. The regulated health professions, therefore, are registered, not licensed.

The intent of this model is to provide the public with protection and choice amongst regulated health care professions who may provide a range of health care services, subject to each profession's scope of practice, standards of practice, and competencies. The model is also aimed at maximizing the contribution of all regulated health professionals to ensure the timely delivery of quality patient-centred care. The model consists of a number of elements which are discussed in more detail below.

Scope of Practice Statement

The scope of practice statement is a general statement describing what the profession does and the methods it uses. The scope of practice statement corresponds to what members of the profession learn in their programs of preparation (training programs) and sets out the areas of expected competency. It establishes the foundation for the practice of the profession and serves as a frame of reference for such things as entry-to-practice requirements, the performance of authorized acts, the standards of practice of the profession and decision-making on responsibilities beyond principal expectations of practice. The scope of practice statements do not establish a licensed area of practice (i.e. the area of practice is not restricted to a particular profession), and elements of the statements of the different health professions overlap, so that various professions may provide similar health care services. The scope of practice statement for MRTs is discussed in Module 2.

Controlled Acts

The controlled acts are 13 procedures, listed in Section 27(2) of the *RHPA*, that are deemed to pose a risk of harm if performed by unqualified persons. The *RHPA* states that no one shall perform a controlled act in the course of providing health care services to an individual unless that person is authorized to perform the act by his or her health profession Act, or the performance of the controlled act has been *delegated* to the person by someone who is authorized to perform the act by his or her health profession Act.

The 13 controlled acts identified under the *RHPA* are:

1. Communicating to the individual or his or her personal representative a diagnosis identifying a disease or disorder as the cause of symptoms of the individual in circumstances in which it is reasonably foreseeable that the individual or his or her personal representative will rely on the diagnosis.
2. Performing a procedure on tissue below the dermis, below the surface of a mucous membrane, in or below the surface of the cornea, or in or below the surfaces of the teeth, including the scaling of teeth.
3. Setting or casting a fracture of a bone or a dislocation of a joint.
4. Moving the joints of the spine beyond the individual's usual physiological range of motion using a fast, low amplitude thrust.
5. Administering a substance by injection or inhalation.
6. Putting an instrument, hand or finger,
 - i. beyond the external ear canal,
 - ii. beyond the point in the nasal passages where they normally narrow,

- iii. beyond the larynx,
 - iv. beyond the opening of the urethra,
 - v. beyond the labia majora,
 - vi. beyond the anal verge, or
 - vii. into an artificial opening into the body.
7. Applying or ordering the application of a form of energy prescribed by the regulations under this Act.
 8. Prescribing, dispensing, selling or compounding a drug as defined in subsection 117(1) of the *Drug and Pharmacies Regulation Act*, or supervising the part of a pharmacy where such drugs are kept.
 9. Prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eye glasses other than simple magnifiers.
 10. Prescribing a hearing aid for a hearing impaired person.
 11. Fitting or dispensing a dental prosthesis, orthodontic or periodontal appliance or a device used inside the mouth to protect teeth from abnormal functioning.
 12. Managing labour or conducting the delivery of a baby.
 13. Allergy challenge testing of a kind in which a positive result of the test is a significant allergic response.

The following will be added as a fourteenth controlled act in the future:

14. Treating, by means of psychotherapy technique, delivered through a therapeutic relationship, an individual's serious disorder of thought, cognition, mood, emotional regulation, perception or memory that may seriously impair the individual's judgement, insight, behaviour, communication or social functioning.

Most health professions are authorized to perform some or all of the specific controlled acts that are appropriate for the profession's scope of practice and expected competencies. Because of overlaps in practice, some professions are authorized to perform the same, or some of the same controlled acts. For example, controlled act 12 can be performed by members of the College of Physicians and Surgeons of Ontario (CPSO) and by members of the College of Midwives of Ontario.

In addition to permitting performance of controlled act procedures, the *RHPA* also gives the option to delegate or transfer the authority to perform the controlled acts from those authorized to perform them under their health profession Act to others who are not. Therefore, professions have the option to delegate procedures within their authorized acts to others and to accept delegation of controlled act procedures not authorized to them from others. Only those authorized to perform controlled act procedures, either through legislation or delegation, may do so. A more complete description of delegation and accepting delegation may be found in the CMRTO publication *Comprehensive Guidelines for Acting in Accordance with the RHPA Scope of Practice/Controlled Acts Model*.

There are limited exceptions and exemptions set out in *RHPA* and its regulations when someone who is not authorized may perform a controlled act. These special circumstances include:

- rendering first aid or temporary assistance in an emergency

- fulfilling the requirements to become a member of a health profession and the act is within the scope of practice of the profession and is done under the supervision or direction of a member of the profession (for MRTs in Ontario, this exception applies only to medical radiation technology students who are completing their training at one of the CMRTO-approved training programs)
- treating a person by prayer or spiritual means in accordance with the tenets of the religion of the person giving the treatment
- treating a member of the person's household
- assisting a person with his or her routine activities of living

In addition, subsection 27(3) of the RHPA permits a controlled act procedure to be performed if the person is exempted by regulations under the RHPA. Number 7 of the controlled acts refers to applying or ordering the application of a prescribed form of energy. Ontario Regulation 107/96 made under the *RHPA* (as amended) lists three forms of energy for the purpose of controlled act 7 including electromagnetism for magnetic resonance imaging. This means that applying or ordering the application of electromagnetism for magnetic resonance imaging is a controlled act procedure. The regulation of magnetic resonance imaging under the RHPA is discussed in more detail in Module 2 under the Controlled Acts section..

Ionizing radiation is not prescribed as a form of energy for the purpose of controlled act 7 under the RHPA. However, under the *Healing Arts Radiation Protection Act*, there are restrictions on the persons who are authorized to order and apply ionizing radiation. The *Healing Arts Radiation Protection Act* is discussed in Module 7.

Authorized Acts

An authorized act is a controlled act, or portion of a controlled act, that is authorized for a specific profession to perform under its health profession Act. Each regulated health profession is authorized to perform from 0 to 12 of the 13 controlled acts, either in full or in part, depending on the profession's scope of practice and the competencies of the profession.

Authorized acts are the specific controlled acts that members of a regulated college are able to perform as long as they have the required skill, knowledge and judgement. Medical radiation technologists are authorized to perform four authorized acts which fall within three of the 13 controlled act procedures. They are:

- #2. Taking blood samples from veins
- #5. Administering substances by injection or inhalation
- #6-vi and vii. Administering contrast media through or into the rectum or an artificial opening into the body
- #2 Tattooing

The *MRT Act* states that a medical radiation technologist can only perform authorized acts on the order of a physician and while in the course of practising the profession.

Ontario Regulation 107/96 made under the *RHPA* (as amended) provides an exemption for a member of the CMRTO to apply electromagnetism for magnetic resonance imaging (MRI) in public hospitals and independent health facilities provided the application is ordered by a physician and certain other conditions are met. See module 2 for more information.

Risk of harm clause

The *RHPA* also contains what is known as a risk of harm clause (Section 30 of *RHPA*). 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*. For example, if a weight-loss consultant (unregulated practitioner) advises a client to routinely take laxatives in order to lose weight, this could be a contravention of the risk of harm clause, as it is reasonably foreseeable that serious bodily harm may result from the routine use of laxatives. 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*.

The risk of harm clause does not apply to delegated controlled act procedures or to treatment given by a person who is acting under the direction of another health care professional, provided the treatment is within the scope of practice of the health care professional (Sections 30(2) and 30(3) of *RHPA*).

Penalties for contravention

Anyone performing a controlled act procedure who is not authorized (either through his or her authorized acts, or through delegation, or as result of an exemption or exception under the legislation) may be found guilty of an offence and liable to a fine of up to \$50,000 or a jail term of up to one year, or both. Employers may also be found guilty of an offence and liable to a fine if an employee, while acting within the scope of his or her employment, performs a controlled act procedure and is not authorized to do so.

In addition, if a regulated health professional performs a controlled act procedure when not authorized, this may constitute professional misconduct. For MRTs, this includes performing an authorized act procedure without an order from a physician, or performing a controlled act not authorized to MRTs without proper delegation or without an exemption or exception under the legislation.

Relationship between the RHPA and the HARP Act

Both the *RHPA* and the *Healing Arts Radiation Protection Act (HARP Act)* govern MRT 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 and the *HARP Act* deals with ionizing radiation.

Under the *RHPA*, the application of energy falls within Controlled Act 7, “applying or ordering the application of a form of energy prescribed by regulation.” The regulations defining what constitutes energy for the purposes of the controlled act can be found under Ontario Regulation 107/96 made under the *RHPA* – at the back of the *RHPA* in the printed copy, or under the regulation section on the CMRTO website. The list of forms of energy for the purposes of the controlled act includes electromagnetism for magnetic resonance imaging. The list does not include ionizing radiation because ionizing radiation 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, and it is not referred to in these terms.

When looking at the list of controlled acts authorized to MRTs (i.e., taking blood samples from veins, administering substances by injection or inhalation, administering contrast media through or into the rectum or an artificial opening into the body, and tattooing), you will not see the application of ionizing radiation. However, for practical purposes, the rules governing MRTs when applying ionizing radiation are similar to those governing the performance of authorized act procedures and the application of electromagnetism for MRI: all require an order from an authorizing professional. (In the case of performing an authorized act procedure under the *MRT Act* or applying electromagnetism for magnetic resonance imaging, the MRT needs an order from a physician. In the case of applying ionizing radiation under the *HARP Act*, the MRT needs an order from a physician or other health professional specifically named in the *HARP Act*.) Failure to obtain a proper order, when performing an authorized act, applying electromagnetism for magnetic resonance imaging or applying ionizing radiation, constitutes professional misconduct.

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. (See the CMRTO publication [*Guidelines for Acting in Accordance with the RHPA Scope of Practice/Controlled Acts Model*](#) for more information on delegation.) 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*.

Module Summary



The *RHPA* is legislation designed to ensure public safety, consumer choice and accountability to the public. It provides protection of the public by requiring each profession to develop standards of practice, entry to practice requirements for the profession, and by controlling certain health care procedures that could pose potential danger to a patient or client.

The *RHPA* defines 13 controlled acts which may only be performed by health care professionals who have the act authorized to them under their profession specific legislation, or who have had the act delegated to them by another member of a health care profession who is authorized to perform the act.

The Health Professions Procedural Code under the *RHPA* requires each regulatory health college to have a process for investigating complaints by the public.

Members whose actions fall below the standards of the profession or who have been found to have committed an act of professional misconduct may be disciplined by the College. Disciplinary measures may include suspending or revoking a member's certificate of registration.

Accountability to the public by the regulatory health colleges is ensured through the appointment of public members to the Councils of the regulatory health colleges and by having meetings of the Councils open to the public.

Case Study: Regulated Health Professions Act and Regulations

Carol is a medical radiation technologist practising in the specialty of nuclear medicine. She works in a clinic that provides both nuclear medicine services and laboratory services. Her colleague, Shumet, works in the same clinic as a medical laboratory technologist.

One day, Shumet has a dentist appointment. Shumet asks Carol to cover for him while he is gone. He suggests that Carol could take the blood sample from any patient who comes to the clinic for lab work. Shumet says that he will take care of the rest of the lab test when he returns from his dentist appointment.

Question:

What should Carol do?

Response:

Carol knows that taking a blood sample from a vein is part of Controlled Act #2 under the *RHPA* – performing a procedure on tissue below the dermis. Carol also knows that she is able to do the procedure competently as she takes blood samples from her patients' veins for particular nuclear medicine procedures. As a medical radiation technologist, the controlled act is authorized to her under the *Medical Radiation Technology Act (MRT Act)*.

However, Carol also knows that the *MRT Act* states she can only perform authorized acts on the order of a physician and while in the course of practising the profession. If Carol took a blood sample from one of Shumet's patients, she would not be practising the profession of medical radiation technology.

Carol should tell Shumet that she is sorry, but she is unable to cover for him while he is gone as she is not authorized to take blood samples from veins unless the patient is having a nuclear medicine procedure. She can offer to rebook Shumet's patients or to tell them when they can expect Shumet to return.

Module 2

The Medical Radiation Technology Act and Regulations

All specialties (radiography, nuclear medicine, radiation therapy and magnetic resonance)

Introduction

The *Medical Radiation Technology Act, 1991 (MRT Act)* is the profession-specific Act for medical radiation technologists named in Schedule 1 to the *Regulated Health Professions Act*. The *MRT Act*:

- establishes the College of Medical Radiation Technologists of Ontario (CMRTO)
- defines the scope of practice of medical radiation technology
- defines the controlled acts authorized to MRTs
- sets the composition of the College Council
- provides for the restricted title “medical radiation technologist”
- has regulations related to the scope of practice and governing professional misconduct, registration, quality assurance, and advertising

Each of these topics will be discussed in greater detail below.

College of Medical Radiation Technologists of Ontario

All professions regulated under the *RHPA* have Colleges. The College of Medical Radiation Technologists of Ontario (CMRTO) governs and regulates the profession of medical radiation technology. Four specialties—radiation therapy, radiography, nuclear medicine and magnetic resonance—are under the mandate of the CMRTO. The profession-specific Act for medical radiation technology is the *Medical Radiation Technology Act (MRT Act)*.

The mission statement of the College of Medical Radiation Technologists of Ontario is as follows:

“The mission of the College of Medical Radiation Technologists of Ontario is to protect the public through the self-regulation of the profession of medical radiation technology.”

The CMRTO determines which applicants are qualified to practise medical radiation technology and registers only those who meet the requirements of the registration regulations made under the *MRT Act* and any other applicable law. (See the CMRTO publication [What You Must Know About Registration](#) or [here](#) for more information.) MRTs are expected to practise in accordance with the Standards of Practice for their specialty. The CMRTO has a complaints and discipline procedure

to deal with complaints from the public about a member who is not practising professionally or in accordance with the standards set by the profession.

To work as a medical radiation technologist in Ontario, you must be a member of the CMRTO. Only a member of the CMRTO may use the title “Medical Radiation Technologist” or the abbreviation “M.R.T.”

MRT scope of practice statement

In the *MRT Act*, the scope of practice statement for MRTs is as follows:

“The practice of medical radiation technology is the use of ionizing radiation and other forms of energy prescribed under sub-section 12(2) to produce diagnostic images and tests, the evaluation of the technical sufficiency of the images and tests, and the therapeutic application of ionizing radiation.”

Ontario Regulation 226/03 made under the *MRT Act* prescribes electromagnetism as a form of energy for the purpose of the scope of practice of medical radiation technology.

The scope of practice statement identifies what can be expected of MRTs in practice. It corresponds to what members of the profession learn in their programs of preparation (educational programs) and sets out the areas of expected competency. It establishes the foundation for the practice of the profession and serves as the frame of reference for such things as entry-to-practice requirements, the performance of authorized acts, the standards of practice of the profession and decision-making regarding responsibilities beyond principal expectations of practice. As such, it clarifies MRT practice and provides a window for the evolution of that practice.

Controlled acts authorized to MRTs

Under the *MRT Act*, MRTs are authorized to perform four authorized acts (which fall within three of the 13 controlled acts) as follows:

In the course of engaging in the practice of medical radiation technology, a member is authorized, subject to the terms, conditions and limitations imposed on his or her certificate of registration, to perform the following:

1. Taking blood samples from veins

Authorized Act 1 for MRTs falls within Controlled Act 2 of *RHPA*. An example of a procedure falling within this authorized act is taking blood samples for the purpose of assessing effective renal plasma flow.

2. Administering substances by injection or inhalation

Authorized Act 2 for MRTs falls within Controlled Act 5 of *RHPA*. Examples of procedures falling within this authorized act include 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.

3. Administering contrast media through or into the rectum or an artificial opening into the body

Authorized Act 3 for MRTs falls within Controlled Act 6 of *RHPA*. An example of a procedure falling within this authorized act is inserting an enema tip into the rectum for a barium enema procedure.

4. Tattooing

Authorized Act 4 for MRTs falls within Controlled Act 2 of *RHPA*. An example of a procedure falling within this authorized act is radiation therapy skin marking.

MRT performance of an authorized act

In order to perform the controlled acts authorized to MRTs, certain conditions must be met. These conditions are as follows:

1. **There must be an order from a physician.**

Under Section 5(1) of the *MRT Act*, MRTs are only permitted to perform a procedure falling within an authorized act if there is an order for the authorized act from a physician. The exact wording of this requirement is as follows:

“A member shall not perform a (authorized act) procedure...unless the procedure is ordered by a member of the College of Physicians and Surgeons of Ontario.”

In the practice of medical radiation technology, orders may also be known as requisitions or doctor’s notes. An order must be obtained for each procedure the MRT is to perform. For example, if an MRT is to administer contrast media and apply ionizing radiation, the MRT requires an order for each procedure. Exactly what constitutes a proper order is discussed in the CMRTO publication *Comprehensive Guidelines for Acting in Accordance with the RHPA Scope of Practice/Controlled Acts Model* (Comprehensive Guidelines).

In summary, you may not perform a procedure that falls within medical radiation technology’s four authorized acts unless there is an order from a physician. If an MRT performs an authorized act without an order, he or she has committed an act of professional misconduct and may be subject to disciplinary action by the CMRTO.

2. **Authorized acts can only be performed in the course of engaging in the practice of medical radiation technology.**

MRTs are authorized to perform procedures falling within the four authorized acts in the course of engaging in the practice of the profession. MRTs are not authorized to perform authorized acts outside the course of practising the profession. In this way, MRTs are only

permitted to administer substances by injection or inhalation and establish IVs in the context of performing a radiological, nuclear medicine or radiation therapy procedure.

3. An MRT must not be acting contrary to terms, conditions and limitations placed upon his or her certificate of registration when performing authorized acts.

If there are any terms, conditions or limitations placed upon an MRT's certificate of registration that regulate the performance of authorized acts, such as restricting performance to certain circumstances or prohibiting performance outright, then these conditions must be adhered to.

4. An MRT must be competent to perform the authorized act in light of the circumstances in the situation in which the procedure is to be performed. This includes having the ability to manage the outcomes of performing the procedure.

The legislation permits, but does not require the performance of authorized acts. Having the authority to perform an authorized act does not automatically mean it is appropriate to do so. MRTs will have different competencies within the overall MRT scope of practice, depending on qualifications and practice setting requirements. You may only perform authorized acts if there is an order from a physician and if you have the necessary knowledge, skills and judgement to perform the procedure safely, effectively and ethically, given the circumstances in the situation. Module 5 discusses what MRTs should do if they are not competent to perform an authorized act.

Controlled Acts – Applying or Ordering the Application of Electromagnetism for Magnetic Resonance Imaging

One of the 13 procedures listed in the RHPA as a controlled act is applying or ordering the application of a form of energy prescribed by the regulations under the RHPA.

Electromagnetism for magnetic resonance imaging has been prescribed as a form of energy. This means that applying or ordering the application of electromagnetism for magnetic resonance imaging is a controlled act procedure.

Only those persons who are authorized to perform controlled act procedures, either through legislation or delegation, may do so; however, there are limited exceptions and exemptions set out in the legislation. One such exemption is provided in subsection 27(3) of the RHPA. This provision permits a controlled act procedure to be performed if the person is exempted by regulations under the RHPA, or if the act is done in the course of an activity exempted by the regulations under the RHPA.

Ontario Regulation 107/96 made under the RHPA, as amended by Ontario Regulation 228/03 (the Controlled Acts Regulation) provides an exemption for a member of the CMRTO to perform an MRI examination in a public hospital or an independent health facility, provided the examination is ordered by a physician, and the other conditions set out in the Controlled Acts Regulation are met. The other conditions that apply to a member of the CMRTO who performs an MRI examination in a public hospital are described in clause 3.1(a) of Appendix E of the

Addendum to Comprehensive Guidelines. The other conditions that apply to a member of the CMRTO who performs an MRI examination in an independent health facility are described in clauses 3.1(b) or (c) of Appendix E of the Addendum to Comprehensive Guidelines.

An MRT must ensure that the application of electromagnetism has been ordered by a physician and the other conditions set out in the Controlled Acts Regulation have been met before he or she applies electromagnetism for an MRI, either in a public hospital or an independent health facility. See the Addendum to Comprehensive Guidelines for more information.

Structure of the CMRTO

The CMRTO has all the statutory committees as required by the Health Professions Procedural Code of the *RHPA*. Section 7(1) of the *MRT Act* defines the composition of the CMRTO Council as having:

- At least 6 and no more than 9 members of the profession who have been elected by the members
- At least 5 and no more than 8 members of the public who have been appointed by the Lieutenant Governor in Council
- 1 or 2 members of the profession who are faculty members of an educational institution in Ontario that is authorized to grant diplomas or degrees in medical radiation technology and who have been elected by the members

As previously noted, public participation and accountability to the public are the essential themes of the *RHPA*. Almost half of the [CMRTO's Council members](#) are from outside the medical radiation technology profession. The public members are appointed by the Lieutenant Governor in Council of Ontario and vote on all decisions before CMRTO's Council. Also, [Council meetings](#) are open to the public to ensure public accountability.

Section 7(2) of the *MRT Act* states that every member who practises or resides in Ontario and who is not in default of payment of the annual membership fee is entitled to vote in an election of members of the Council.

When you become a member of the CMRTO, the electoral district in which you are entitled to vote will be determined. These districts are defined by the specialty in which you practise and the location within the province in which you practise or reside. Each year, the CMRTO holds elections in two or three of the electoral districts. If you are eligible to vote in a district in which an election is being held, you will receive information from the College regarding the election and the process to follow in order to vote. See [here](#) for more information

More information on the election process, the districts for which elections will next be held, and the current members of Council and Statutory Committees may be found on [here](#).

Restricted title and representation of qualifications

Restricted titles are an important part of public protection and choice. The public knows that only a physician, dentist, psychologist, chiropractor or optometrist can use the protected title “doctor” in the course of providing or offering to provide health care to individuals. Similarly, only members of CMRTO can use the title “medical radiation technologist.” The use of this title assures patients that the technologist who provides medical radiation technology services to them is registered with the College and is qualified to practise.

Section 9(1) of the *MRT Act* states:

“No person other than a member [of the College] shall use the title “medical radiation technologist” or a variation or abbreviation [such as “MRT”] or an equivalent in another language.”

Ontario Regulation 866/93 made under the *MRT Act, 1991*, as amended by O.Reg. 227/03 which governs registration of CMRTO members, also states that a member who uses an abbreviation for the title “medical radiation technologist” may use the abbreviation “M.R.T.”.

A member who holds a specialty certificate of registration listed in the first column of the Table below may use the title and the abbreviation set out opposite to the specialty in the second and third columns of the Table:

Specialty	Title	Abbreviation
Radiography	Medical Radiation Technologist – Radiography	M.R.T.(R.)
Radiation Therapy	Medical Radiation Technologist – Radiation Therapy; or Medical Radiation Technologist – Radiation Therapist	M.R.T.(T.)
Nuclear Medicine	Medical Radiation Technologist – Nuclear Medicine	M.R.T.(N.)
Magnetic Resonance	Medical Radiation Technologist – Magnetic Resonance	M.R.T.(M.R.)

A member shall not use a title or abbreviation set out in the second or third column of the Table above unless the member holds a specialty certificate of registration listed in the first column of the Table opposite the title or abbreviation.

Once you have fulfilled all the requirements for registration with the CMRTO and have paid the annual registration fee, you will be issued a specialty certificate of registration and will be able to use the appropriate title for your specialty. If you resign your membership with the CMRTO, you are no longer able to use the title until you are reinstated as a member of the CMRTO.

Section 9(3) of the *MRT 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 technologist or in a specialty of medical radiation technology.”

This provision, combined with the requirements of the *Healing Arts Radiation Protection Act*, means that it is mandatory to be a member of the CMRTO in order to practise as a medical radiation technologist in Ontario.

Regulations made under the MRT Act

The regulations currently made under the *MRT Act* govern the following:

- Registration
- Professional Misconduct
- Quality Assurance
- Advertising
- Prescribed Forms of Energy – Scope of Practice under the *MRT Act*

These regulations can be found in the enclosed package or on the CMRTO website.

1. [Registration regulations](#)

Ontario Regulation 866/93, made under the *MRT Act, 1991*, as amended by O.Reg. 227/03, describes the classes of certificates of registration, the requirements for registration and the conditions for registration. The annual renewal of registration for CMRTO members, including payment of the annual fee for renewal, is due on their birthday. The College sends an *Application for Renewal of Registration* to each member at least 30 days before his or her birthday. The *Application for Renewal of Registration* requires members to complete a number of sections, including the Declaration of Conduct, Quality Assurance Declaration and Declaration of Compliance. As a member of the College, it is your responsibility to pay your annual fees for renewal and to submit the annual application for renewal to the College on or before your birthday every year. If a member does not pay the annual fee for renewal within three months after his or her birthday, then his or her certificate of registration will be suspended. See [Bylaw No. 23](#) for more information.

Prior to being issued a certificate of registration, all applicants to the CMRTO must meet the requirements as set out in the registration regulations. These requirements include completing an approved program in medical radiation technology, and an approved examination. The CMRTO-approved examination is the certifying examination of the Canadian Association of Medical Radiation Technologists (CAMRT). All members of the CMRTO must successfully complete the CAMRT examination prior to being issued a certificate of registration.

2. [Professional Misconduct regulations](#)

Ontario Regulation 855/93 made under the *MRT Act, 1991* (as amended by O.Reg 199/98) lists acts which are considered professional misconduct for purposes of the College's complaints, investigations and discipline processes. You should review these regulations in order to be familiar with the types of acts which are considered to be acts of professional misconduct.

3. [Quality Assurance regulations](#)

Ontario Regulation 200/98 made under the *MRT Act, 1991* defines the CMRTO QA program. The QA program is described in Module 4.

4. [Advertising regulations](#)

Ontario Regulation 545/94 made under the *MRT Act, 1991* places limits on the advertisement of a member's practice. The nature of the practice of MRTs in Ontario does not usually require the use of advertising.

5. [Prescribed Forms of Energy](#)

Ontario Regulation 226/03 made under the *MRT Act, 1991* prescribes electromagnetism as a form of energy for the purpose of the scope of practice of medical radiation technology.

Communicating with the CMRTO

If you have any concerns or questions about your registration with the CMRTO or about professional practice issues, you should contact the [CMRTO](#). The staff at the College will either answer your questions or refer you to the relevant legislation or guidelines which are applicable to your questions.

The College also provides publications to its members on a regular basis in order to provide information to members regarding their professional practice. The College publishes a newsletter called *Insights* three to four times a year to inform members of current issues being discussed by the College and College Council. The College also publishes a document called *What You Must Know About...* when needed. This publication provides members with information regarding changes in legislation or policy which may affect their practice. In addition, the College has published other documents including the Standards of Practice, QA Portfolio and Code of Ethics which are discussed in other modules later in this Legislation Learning Package. All these documents are also available on-line on the CMRTO website at www.cmrto.org.

Professional associations

In Ontario, there are two professional associations to which you may belong – the Canadian Association of Medical Radiation Technologists (CAMRT) and its provincial affiliate, the Ontario Association of Medical Radiation Technologists (OAMRT). These associations must not be confused with the College as they have very different mandates from that of the CMRTO.

The mandate of the CAMRT and the OAMRT is to provide services to members (such as continuing education) and to support the advancement of the profession. The professional associations do not operate under any legislated mandate – the professional associations are not required to report to any government. The professional titles and designations which members of the professional associations may use are different from that of the College. The CAMRT also administers a national certification examination which the College Council has approved as the examination of the CMRTO.

Membership with the CAMRT and OAMRT is voluntary – you do not have to be a member of the CAMRT or OAMRT in order to practise the profession of medical radiation technology in Ontario. You may, however, want to consider being a member of the CAMRT and OAMRT in order to receive some of the benefits of membership including professional liability insurance. You should contact these associations directly to obtain more information on the benefits of membership at www.camrt.ca and www.oamrt.on.ca.

In addition, because the regulation of health care professions is a provincial responsibility, if you intend to practise in another province, you must check with the provincial regulatory body or association of the other province to ensure you are qualified to practise in that province.

Remember, the mandate of the College is the protection of the public through the self-regulation of the profession. Membership with the CMRTO is mandatory in order to practise the profession of medical radiation technology in Ontario. You may only use the professional title M.R.T.(R.), M.R.T.(T.), M.R.T.(N.) or M.R.T.(M.R.) if you are a current member of the CMRTO and registered in the corresponding specialty.

Module Summary



The *MRT Act* is the profession-specific Act for medical radiation technology under the *RHPA*. The *MRT Act* defines the authorized acts for MRTs and the scope of practice of the profession. The composition of the College Council is also defined under the *MRT Act*. Certain regulations governing the registration and practice of MRTs have been made under the *MRT Act*.

To practise as a medical radiation technologist in Ontario, you must be a member of the CMRTO. Only members of the CMRTO may use the designations M.R.T.(N.), M.R.T.(R.), M.R.T.(T.) or M.R.T.(M.R.). MRTs must pay an annual fee and meet other conditions of registration to maintain their registration with the CMRTO.

MRTs are authorized to perform four authorized acts which fall within three of the 13 controlled acts under the *RHPA*: taking blood samples from veins, administering substances by injection or inhalation, administering contrast media through or into the rectum or an artificial opening into the body, and tattooing. Prior to performing one of these procedures, the MRT must ensure that certain conditions are met: there must be an order from a physician, the authorized act can only be performed in the course of engaging in the practice of medical radiation technology, the MRT must not be acting contrary to terms, conditions or limitations placed on his or her certificate of registration, and the MRT must be competent to perform the authorized act in light of the situation.

The mandate of the College is to ensure protection of the public through the self-regulation of the profession. The College issues publications for its members periodically to provide important information regarding changes in legislation and policy.

The professional associations (CAMRT and OAMRT) are voluntary organizations that exist for the advancement of the profession. The CAMRT and OAMRT provide services to members such as professional liability insurance and continuing education courses.

Case Study: CMRTO Registration

John is a medical radiation technologist specializing in radiography. He has recently moved from Halifax, Nova Scotia to Ontario to live with his sister Diane who works as a physiotherapist in a busy rehabilitation clinic. This clinic also performs X-Ray examinations. Diane knows that the technologist who usually takes the X-Rays has been off sick and will likely be taking long-term disability leave. Diane suggests to John that he should come to the clinic and see if he can fill in for a few days to earn some extra money and maybe secure a full-time position once the regular technologist leaves. John has just arrived in Toronto and has not had time to contact the CMRTO; however, he is a member of the CAMRT.

Question:

What should John do?

Response:

The *MRT Act* requires that John be a member of the CMRTO to use the title “medical radiation technologist” or to represent himself as a person who is qualified to practise in Ontario as a medical radiation technologist or in a specialty of medical radiation technology. Therefore, he must contact the CMRTO to become registered prior to starting work in his profession in Ontario. Although John is a member of the CAMRT – the only requirement to practise in Nova Scotia – it is mandatory to be a CMRTO member to work as a medical radiation technologist here in Ontario.

If John worked in the clinic and applied ionizing radiation to patients in Ontario without being a member of the CMRTO, he would also be in contravention of the *Healing Arts Radiation Protection Act (HARP Act)*. We discuss this Act in more detail in Module 7.

John should contact the CMRTO to apply for registration prior to approaching the clinic regarding working as a medical radiation technologist. Once he is registered with the CMRTO, he will be able to work as an MRT.

Module 3

The CMRTO Standards of Practice

All specialties (radiography, nuclear medicine, radiation therapy and magnetic resonance)

Introduction

The standards of practice for medical radiation technologists in the specialties of radiography, nuclear medicine, radiation therapy and magnetic resonance are composed of the Essential Competencies and the Comprehensive Guidelines for acting in accordance with the Regulated Health Professions Act Scope of Practice/Controlled Acts Model, as amended by the Addendum to the Comprehensive Guidelines (the Comprehensive Guidelines).

Purpose of the Standards of Practice

The [Standards of Practice](#) assist MRTs in understanding the College's expectations with respect to the professional practice of medical radiation technology. They help managers in making appropriate decisions regarding management of the practice of MRTs and in developing suitable policies and procedures. They assist educators in developing curriculum and in providing appropriate instruction. Finally, they assist the public in assessing quality of care.

The Standards of Practice serve the College in all areas where criteria for professional performance are needed in making decisions. They are used by the Inquiries, Complaints and Reports Committee, the Discipline Committee and the Fitness to Practise Committee in making their determinations regarding professional misconduct, incompetence or incapacity. They are also used for other College processes such as ascertaining entry-level requirements for registration and for evaluation of Quality Assurance records in the Quality Assurance Program.

In the event that the Standards of Practice set a standard that is higher than departmental policy or procedure, the MRT must comply with the standard set by the Standards of Practice.

The [Essential Competencies](#) document was developed by the College as a reference tool to determine whether a medical radiation technologist can perform at an acceptable level. The Essential Competencies reflect the knowledge, skills and judgment MRTs need in order to perform the services and procedures that fall within the scope of practice of the profession.

The Essential Competencies have specific, required competencies for all the specialties under 6 sections:

1. Legislation, Standards and Ethics
2. Equipment and Materials
3. Diagnostic Examinations and Radiation Treatment
4. Safe Practice
5. Relationship with Patients
6. Records and Reporting

For example, the Essential Competencies highlight the importance of maintaining patient confidentiality and state:

“All M.R.T.s must keep all patient information confidential except when necessary to facilitate diagnosis or treatment of the patient or when legally obliged or allowed to disclose such information.”

You should be familiar with the Essential Competencies and [Comprehensive Guidelines](#) as these are the standards which you are expected to use in your daily practice. Links to the Essential Competencies, Comprehensive Guidelines (including the Addendum to the Comprehensive Guidelines) are provided in this module.

Module Summary



The CMRTO has Standards of Practice for medical radiation technologists in the specialties of radiography, nuclear medicine, radiation therapy and magnetic resonance. The Standards of Practice are composed of the Essential Competencies and the Comprehensive Guidelines for acting in accordance with the Regulated Health Professions Act Scope of Practice/Controlled Acts Model, as amended by the Addendum to the Comprehensive Guidelines.

The Standards of Practice assist MRTs in understanding the College's expectations with respect to the professional practice of medical radiation technology. They help managers in making appropriate decisions regarding management of the practice of MRTs and in developing suitable policies and procedures. They assist educators in developing curriculum and in providing appropriate instruction. Finally they assist the public in assessing quality of care.

The Standards of Practice serve the College in all areas where criteria for professional performance are needed in making decisions. They are used by the Inquiries, Complaints and Reports Committee, the Discipline Committee and the Fitness to Practise Committee in making their determinations regarding professional misconduct, incompetence or incapacity. They are also used for other College processes such as ascertaining entry-level requirements for registration and for evaluation of Quality Assurance records in the Quality Assurance Program.

Each MRT is responsible for ensuring that he or she is practising the profession in accordance with the Standards of Practice. You should be familiar with the Standards of Practice for the specialty in which you will be practising. Not maintaining the Standards of Practice is considered to be professional misconduct under the professional misconduct regulations made under the *MRT Act*.

Case Study: Standards of Practice

Raisa is a medical radiation technologist practising in the specialty of radiography. One evening, Raisa is working in computerized tomography (CT) when she is requested to perform an emergency scan on the son of a local politician, who has been involved in a motor vehicle accident. Raisa does a CT scan of the patient's head which shows a subdural haematoma. The patient is taken directly to the operating room after the CT.

When Raisa gets home later in the evening, her friend Nadia calls her on the telephone. Nadia has heard about the accident and wants to know how the politician's son is doing as the two families are friends.

Question:

What should Raisa do?

Response:

The Essential Competency related to Relationship with Patients (section 5 of the Essential Competencies) states that MRTs must understand how, and act, to protect the confidentiality of all professionally acquired information about patients. One of the indicators (paragraph (k)) states that all MRTs must keep all patient information confidential, except when necessary to facilitate diagnosis or treatment of the patient or when legally obliged or allowed to disclose such information.

Raisa should tell Nadia that she is not able to discuss the condition of any patient as that information is confidential. Raisa could suggest either that Nadia call her friends to find out how their son is doing or wait until the family is ready to let people know what is happening.

Case Study: Contraindication for MRI

Jane is a medical radiation technologist practicing in the specialty of magnetic resonance in a general downtown hospital.

Jane has an order to perform an MRI scan on an 82 year old lady. Jane has spent time explaining all aspects of the scan to the patient.

She has carefully gone over the screening questionnaire with the patient asking all the questions that would indicate a contraindication to performing the MRI scan as it could harm the patient. Because of the patient's age, Jane asked her more than once if she had ever had any heart surgery and the patient responded no each time.

Satisfied that it was safe to proceed, Jane took the patient into the control area outside the MRI room.

Just before Jane opens the door to enter the MRI room, the patient turns to Jane and inquires "How come you never asked any questions about my ticker? You never asked me if I had any operations on my ticker? I have a pacemaker."

Question:

What should Jane do?

Response:

It is not uncommon for patients to be unfamiliar with what we consider common medical terms. Jane should stop the procedure. The presence of a pacemaker, as in any mechanical device, is a clear contraindication for a MRI scan.

Jane is aware that it would be dangerous to the patient to proceed with the scan. She is also aware that proceeding with the scan would be in contravention of one of the indicators (paragraph (s)) of the Essential Competency related to Safe Practice (section 4 of the College's Essential Competencies) which requires MRTs in the specialty of MR to "ensure that there are no contraindicators present that could harm the patient or would exclude the patient from having the examination."

Module 4

The CMRTO Quality Assurance Program

All specialties (radiography, nuclear medicine, radiation therapy and magnetic resonance)

Introduction

As you remember from Module 1, the *RHPA* requires all Colleges to have a program to assure the quality of the practice of the profession and to promote continuing evaluation, competence and improvement of its members. As a result of this requirement, the CMRTO has developed a Quality Assurance Program (QA program). Ontario Regulation 200/98 made under the *MRT Act* defines the CMRTO QA program. You can find a link to these regulations [here](#).

You will be required to participate in the College's QA program once you are a member of the CMRTO. The College will send you your own Quality Assurance Continuous Learning Workbook for Medical Radiation Technology when you receive your certificate of registration. Following is a summary of the important points of the CMRTO QA program. You may obtain more information, including the necessary forms, on the CMRTO website at www.cmrto.org. You may obtain more information, including the necessary forms, [here](#).

Components of the QA program

The core components of the QA program include, the completion by each member of the self-assessment profile and continuous learning activities, evaluation by the QA Committee of this self-assessment profile and continuous learning activities, and practice assessment of members.

The QA program requires that each member of the College do the following each year:

1. Complete the self-assessment profile
2. Complete the continuous learning portfolio
3. Complete and submit the certificate of competence (QA Declaration) to the College (this form is part of the annual renewal of registration form)

Each member must retain a copy of his or her completed self-assessment profile, continuous-learning portfolio and certificate of competence (QA Declaration) for five years.

Self-assessment profile

The self-assessment profile is a tool to help you summarize your strengths and opportunities to enhance the various skills, knowledge and abilities you need to perform your job, today and in the future. The self-assessment profile provides you with an opportunity to review your performance against the profession's Standards of Practice and against additional requirements that are needed in your day-to-day job. You can use the self-assessment profile to determine your own areas of interest and anticipated requirements for new skills and knowledge in order to function optimally in the work place. The self-assessment profile will enable you to reflect on your role, practice and learning needs as an MRT, but it is not comprehensive nor inclusive of all your job responsibilities.

Continuous learning portfolio

The continuous learning portfolio is a tool to assist you in planning for and engaging in both informal and formal continuous learning activities. These learning activities will be documented in the continuous learning portfolio. The continuous learning portfolio provides you with a process for:

- Identifying learning goals
- Planning continuous learning activities and experiences
- Executing an action plan to carry out the planned continuous learning activities
- Documenting your learning activities

Certificate of competence

The certificate of competence, which is referred to as the "Quality Assurance Declaration," provides the College with confirmation of your continued competence and your participation in the QA program. You must complete the Quality Assurance Declaration on the annual renewal of registration form and return it to the CMRTO each year.

Continuous learning activities

Each member of the CMRTO is required to complete 25 hours of continuous learning activities each year as part of the QA program. It is your decision which continuous learning activities will be part of your continuous learning portfolio. The CMRTO does not approve courses or assign points for continuous learning activities. You must count and record the number of hours which you spent in a particular continuous learning activity.

The continuous learning activities:

- Must relate to the learning goals which you have developed in the continuous learning portfolio
- Must relate to improving your knowledge, skill and judgement as an MRT

The QA Committee considers whether the continuous learning activities relate to professional skill and knowledge, workplace skills and issues, patient health or professional issues.

The continuous learning activities do not have to be formal courses. While some members may choose to complete formal continuing education courses, other members may choose to complete their continuous learning activities using informal education. Types of activities which may be counted and recorded as continuous learning activities include attending association meetings, attending department in-service education, completing annual CPR re-training, reading professional journals, completing research on the Internet, or learning a new procedure or new piece of equipment.

Practice assessment

The QA program provides for two types of practice assessment: an individual assessment conducted by an assessor and an assessment conducted through a multi-source assessment process. The assessment conducted through a multi-source feedback system is a program designed to assess members' knowledge, skills and judgment. The multi-source assessment process provides a means for peers (MRTs), co-workers such as clerical staff or other health care providers, patients and the MRT who is being assessed, to complete a survey focused on the standards of practice. The assessed MRT receives a performance assessment profile or feedback about his or her performance.

Multi-source feedback (MSF) system

A MSF system provides a global picture of a specific individual's performance in the practice setting. It is based on the idea that coworkers may be in the best position to provide practice feedback and advice. The multi-source feedback system provides a means to assess how members of the profession actually perform in practice. The assessment process is a formative/development evaluation which incorporates feedback regarding an MRT's performance in the practice setting from those who are in the best position to provide feedback – patients, peers (other MRTs), coworkers and the MRT himself or herself. There are five components to the system:

1. A self-assessment questionnaire
2. Questionnaires for 6 peers (other MRTs) who are selected by the MRT undergoing the assessment
3. Questionnaires for 6 co-workers (for example, clerical staff, nurses, physicians) who are selected by the MRT undergoing the assessment
4. Questionnaires for 25 patients who are selected by the MRT undergoing the assessment

5. A performance assessment profile that goes to the MRT being assessed. The report will summarize the data of the assessed MRT, as well as the cumulative data of his or her peer group. The questionnaires cover a number of norms drawn from the profession's essential competencies and thus are focused on the Standards of Practice as established by the CMRTO. The multi-source feedback assessment provides the MRT with a formative evaluation in the form of a report that compares the MRT's clinical performance to that of other MRTs. The report is provided to the MRT and the QA Committee.

Selecting MRTS to participate in the MSF system, practice assessment part of the QA program

Each year, the CMRTO will randomly select members from each specialty to undergo a practice assessment by means of a multi-source feedback system. A member who has completed a practice assessment by means of the MSF system will not be randomly selected to undergo a practice assessment in the next five year period.

Compliance

Under the professional misconduct regulations (Ontario Regulation 855/93 as amended by Ontario Regulation 199/98 made under the *MRT Act*), it is considered professional misconduct for a member not to co-operate with the QA Committee.

Module Summary



Under the QA program, each member of the CMRTO is required to:

- complete a minimum of 25 hours of continuous learning activities per year
- complete the self-assessment profile each year
- retain a copy of the self-assessment profile, continuous learning portfolio and certificate of competence (QA Declaration) for five years
- submit the completed certificate of competence, referred to as the “Quality Assurance Declaration,” each year at the time of registration renewal.

Case Study: Quality Assurance Program

Sheetal has recently immigrated to Canada. She has spent the past year completing the requirements for registration with the CMRTO. Last month, Sheetal successfully completed the CAMRT examination and the final requirements of the Order of the panel of the CMRTO Registration Committee and has now received her certificate of registration. Sheetal will be starting a new job as an MRT in Ontario in a couple of weeks.

As a new member of the CMRTO, Sheetal has received a package including her QA portfolio. Sheetal knows that she needs to complete her self-assessment profile and to plan her continuous learning activities for the year. However, she feels she wants to concentrate her efforts on her new job and adapting to working as an MRT in Ontario. Sheetal is concerned that she will not have enough time or money to complete any courses this year.

Question:

What can Sheetal do to meet the QA requirements for the year?

Response:

As Sheetal is now a member of the CMRTO, she must participate in the CMRTO QA program. She will be required to complete the certificate of competence when she renews her CMRTO registration next year. If Sheetal completes the self-assessment profile, she will find that her professional goals could also be her QA learning goals. Sheetal can identify her QA learning goal for this year as “Adapting to working as an MRT in Ontario.”

After developing her learning goals, Sheetal needs to plan which continuous learning activities she will complete in order to meet the requirement of 25 hours of continuous learning this year.

Sheetal knows that her employer will be providing her with an extensive orientation period when she starts her job. She will be learning about new equipment, policies and procedures, and attending departmental training sessions. Her employer has already confirmed that she will be required to complete her annual CPR training. The time Sheetal spends in these activities can be used towards the required 25 hours of continuous learning activities.

Sheetal needs to record her continuous learning activities in her QA portfolio using the appropriate forms from the College and to provide evidence of having completed the continuous learning activities, such as her CPR course completion card. If Sheetal requires additional forms she can obtain them from the CMRTO website or photocopy the forms which were provided in the CMRTO QA Portfolio.

Module 5

The CMRTO Comprehensive Guidelines for Acting in Accordance with the Regulated Health Professions Act Scope of Practice/Controlled Acts Model (Comprehensive Guidelines)

All specialties (radiography, nuclear medicine, radiation therapy and magnetic resonance)

Introduction

The standards of practice for medical radiation technologists in the specialties of radiography, nuclear medicine, radiation therapy and magnetic resonance are composed of the Essential Competencies and the Comprehensive Guidelines, as amended from time to time.

It is intended that the Essential Competencies and Comprehensive Guidelines be used in conjunction with the Code of Ethics for members of the CMRTO. Together, these documents provide a model for ensuring safe, effective and ethical professional practice to ensure safe, effective and ethical outcomes for patients.

In the event that the Essential Competencies or Comprehensive Guidelines set a standard that is higher than departmental policy or procedure, the MRT must comply with the standard set by the Essential Competencies or Comprehensive Guidelines, as the case may be.

Purpose of the Comprehensive Guidelines

The purpose of the Comprehensive Guidelines is to establish:

- a reference for MRTs performing controlled act procedures authorized to MRTs and accepting delegation of controlled act procedures
- a decision-making framework for determining the appropriateness of performing services or procedures that are beyond the principal expectations of MRT practice

The CMRTO hopes that the Comprehensive Guidelines assist MRTs in:

- understanding how the scope of practice/controlled acts model of the *RHPA* works and how it applies to practice
- practicing safely, effectively and ethically when performing controlled act procedures

- responding appropriately to requests or proposals for providing procedures or services that are beyond the principal expectations of MRT practice
- performing appropriately those services or procedures that are beyond principal expectations
- taking appropriate action when unable to implement services or procedures safely, effectively and ethically, in compliance with legislated and professional practice requirements.

The Comprehensive Guidelines focus on the performance of the controlled acts authorized to MRTs: taking blood samples from veins, administering substances by injection or inhalation, administering contrast media through or into the rectum or an artificial opening into the body, and tattooing. Some of the material in the Comprehensive Guidelines is discussed in Modules 1 and 3 of this Legislation Learning Package. The Comprehensive Guidelines also discuss the issue of delegation of controlled acts in detail.

Summary of Comprehensive Guidelines for MRTs performing authorized acts

An MRT may perform an authorized act procedure when all the following conditions have been met:

- an appropriate order is in place from a physician authorizing performance of the procedure
- the procedure will be performed in the course of engaging in the practice of medical radiation technology
- performance of the procedure is not restricted by the terms, conditions or limitations placed upon his or her certificate of registration
- the MRT ensures that he or she has and applies the necessary knowledge, skill and judgement to perform and manage the outcomes of performing the procedure safely, effectively and ethically
- patient consent has been obtained
- responsibility and accountability for performing the procedure are accepted by the MRT, having considered:
 - a) the known risks to the patient in performing the procedure
 - b) the predictability of the outcomes in performing the procedure
 - c) whether the management of the possible outcomes is within the MRT's knowledge, skill and judgement given the situation
 - d) any other factors specific to the situation to ensure the procedure is implemented safely, effectively and ethically
- implementation of the procedure and/or actions taken is documented
- the MRT refrains from performing the procedure if the above conditions are not met and takes appropriate action to address the situation.

What is an order?

An order is an authorizing statement from a regulated health professional with prescribing authority, permitting an MRT to implement a procedure that falls within the MRT scope of practice. Under the *MRT Act*, an order from a physician is necessary to permit MRTs to implement authorized act procedures. (Under the *HARP Act*, an order from a physician, dentist, chiropractor, designated chiropodist, osteopath or, under some circumstances, a nurse who holds an extended certificate of registration is necessary to permit MRTs to apply or administer ionizing radiation.)

An order may also be known as a:

- prescription
- requisition
- request for consultation
- doctor's note

There are two types of orders:

1. Direct order (for one specific patient)
2. Directive or protocol (for a number of patients under specific circumstances)

Direct Orders

A direct order is an order or prescription, for a specific procedure, treatment or intervention for a specific patient written by an individual physician directly in the patient record. To be complete, the order must include:

- name of patient
- date and time
- name of procedure or substance being ordered, and when a substance is being ordered, the order must include:
 - the dosage
 - the route of administration
 - the frequency with which the substance is to be administered(This information may appear in the written order itself or it may exist in protocols, that have been developed in the department by the appropriate authorizing physician.)
- the signature of the ordering physician

Directive or protocol

A directive or protocol is an order or prescription for a procedure, treatment or intervention for a range of patients who meet specific conditions (in some instances this may have been known as a “standing order”). Directives or protocols are always written and must contain:

- a standardized reference number
- identification of the specific procedure or treatment or range of treatments being ordered
- identification of who specifically may implement the procedure under the authority of and according to the directive
- specific patient conditions that must be met before the procedure(s) can be implemented
- any circumstances that must be met before the procedures can be implemented
- any contraindication for implementing the procedures
- documentation requirements
- quality monitoring mechanisms
- the name and signature of the physician authorizing the directive
- the date and signature of the administrative authority approving the directive.

The establishment of directives and protocols is the responsibility of physicians who have the authority to order procedures. However, MRTs should be involved in the decision regarding whether or not the use of a directive or protocol is appropriate. In addition, safeguards and mechanisms should be in place to ensure that effective channels of communication exist between those involved in the care of the patient and that quality monitoring occurs.

An example of a procedure that may be performed under the authority of a directive is inserting an enema tip into the rectum for a barium enema procedure or administering a radiopharmaceutical by injection for a thyroid scan.

When to use a directive or protocol

In general, directives or protocols may be used as the authority for performing procedures when a health professional has the necessary competencies to determine that the conditions and circumstances identified in the directive have been met. Procedures that require direct assessment of the patient by the physician require direct orders and are not appropriate for implementation under a directive. For example, nuclear medicine requires a direct order to perform a brain scan on a particular patient, but the injection of the radiopharmaceutical to complete the scan may be covered under a directive or protocol. MRTs should check with their supervisors or department managers regarding the location of directives or protocols, if being used in the practice setting.

What MRTs should do if they are not competent to perform an authorized act

The authorized acts enable all MRTs, across a broad range of practice settings, to perform procedures that fall within those authorized acts. This does not mean that all MRTs are expected to be competent to perform all the procedures that fall within the acts. On the contrary, it is acknowledged that MRTs will have different competencies within the overall MRT scope of practice, depending on qualifications and practice setting requirements. Therefore, if an MRT is not competent to perform an authorized act procedure, even though legally authorized to do so under the legislation, he or she must refrain from performing it and take the appropriate action to address the situation.

Module Summary



The CMRTO has developed the Comprehensive Guidelines to provide a reference for MRTs performing controlled act procedures and accepting delegation of controlled act procedures. The Comprehensive Guidelines also provide a decision-making framework for determining the appropriateness of performing services or procedures that are beyond the principal expectations of MRT practice.

The Comprehensive Guidelines also provide information on:

- how the scope of practice/controlled acts model of the *RHPA* works and how it applies to practice
- practising safely, effectively and ethically when performing controlled act procedures
- responding appropriately to requests or proposals for providing procedures or services that are beyond the principal expectations of MRT practice
- performing appropriately those services or procedures that are beyond principal expectations
- taking appropriate action when unable to implement services or procedures safely, effectively and ethically, in compliance with legislated and professional practice requirements.

Case Study: Authorized Acts

Recently, while working a weekend shift, Lisa was asked by Dr. Smith to inject a patient undergoing an intravenous pyelogram (IVP) in the radiology department. Dr. Smith told Lisa that she was busy with a trauma case and wouldn't be able to get away for at least an hour. Lisa informed Dr. Smith that she had never injected contrast before and did not feel comfortable performing this procedure. She also told Dr. Smith that she had seen patients have severe reactions to the contrast and was afraid that this might happen to her patient. Lisa knew that her patient had a number of allergies and had developed a bad rash when she had a CT scan done. Dr. Smith then told Lisa that in Toronto, where the doctor had done her residency, the MRTs always injected IVPs. If they could handle this, surely Lisa could do it as well.

Questions:

- 1) Should Lisa inject the IVP?
- 2) What might Lisa do to alleviate future problems such as this?

Responses:

- 1) Lisa has identified that she is not competent to inject contrast; therefore, under no circumstances should she. Remember the Comprehensive Guidelines clearly state that the MRT must be competent to perform an authorized act. Furthermore the situational factors (a history of allergy to contrast) present a clear risk to the patient. Also, a physician needs to be nearby in case of an allergic reaction. This case does not indicate how close the emergency department is to the X-Ray department. Lisa should explain the above reasons to Dr. Smith.
- 2) Lisa could undergo training to acquire the skills needed to make her competent to perform this act in the future. She also might discuss this situation with her supervisors and colleagues to ensure that all staff members are aware of the guidelines for performing controlled acts.

Together Lisa and her colleagues may develop departmental policies for the injection of contrast media. This documentation might help to alleviate future situations like this one. This policy might include guidelines for when a competent MRT may inject contrast media and when the injection should be performed by a physician. Remember, the ordering physician should always be contacted if the MRT feels the risks in this situation are too high or the injection of contrast media is beyond his or her ability to perform safely. It is always better in this situation to err on the side of caution.

Module 6

The CMRTO Sexual Abuse Prevention Program

All specialties (radiography, nuclear medicine, radiation therapy and magnetic resonance)

Introduction:

As you recall from Module 1, the *RHPA* requires that all regulatory health colleges have a program for the prevention of sexual abuse of patients by health care professionals. The CMRTO Sexual Abuse Prevention Program can be found in the publication [*Prevention of Sexual Abuse of Patients – Introductory Instructor’s Guide for Diploma Programs in Medical Radiation Technology.*](#)

Definition of sexual abuse under RHPA

Section 1(3) of the Health Professions Procedural Code (Schedule 2 of the *RHPA*) defines sexual abuse of a patient by a member as:

- *“sexual intercourse or other forms of physical sexual relations between the member and the patient*
- *touching, of a sexual nature, of the patient by the member*
- *behaviour or remarks of a sexual nature by the member toward the patient.”*

The Code also states that “sexual nature” does not include touching, behaviour, or remarks of a clinical nature appropriate to the service provided.

The Code identifies sexual abuse of a patient by a health care professional as an act of professional misconduct.

Prevention of sexual abuse

Considerable responsibility is placed on health care professionals to communicate effectively by paying attention to the ways in which information is conveyed and words selected when speaking to patients. As an MRT, you must also be an active and compassionate listener and show sensitivity to your patient’s concerns and needs. Awareness of cultural and physical barriers which may interfere with clear communication—and respect for these differences—will help you perform your work in a responsive and responsible manner. Always ensure the patient understands the explanation of the procedure; e.g., ask the patient to repeat back to you the explanation.

Following the principles below will help you to achieve the high standards of integrity and effectiveness that should be part of your pattern of care for patients:

Communication principles for medical radiation technologists

- talk before you touch
- treat each patient as an individual
- never assume
- reserve judgement
- speak directly to the patient
- maintain confidentiality
- create a safe environment

Touching principles for medical radiation technologists

- assume nothing
- get the patient's consent
- maintain the patient's dignity
- show respect for the patient
- respect the patient's space
- do not hurt the patient
- touch only where necessary
- respect cultural diversity
- remember patients can change their mind

Mandatory reporting of sexual abuse

Section 85.1(1) of the Health Professions Procedural Code (Schedule 2 of the *RHPA*) makes it mandatory to file a written report if you have reasonable grounds, obtained in the course of your practice, to believe that a patient has been sexually abused by any member of our College or any other health regulatory College. Failure to report sexual abuse of patients when there are reasonable grounds to believe the abuse has occurred is an offence under the Health Professions Procedural Code (Schedule 2 of the *RHPA*) and can lead to severe penalties.

Specifically, if you believe a patient has been sexually abused, then you must:

- submit a written report within 30 days to the Registrar of the College regulating the profession of the person who is the subject of the report
- submit the report immediately if you have reason to believe the abuse will continue or that abuse of other patients will occur

And keep in mind these other requirements for submitting a report:

- you must only submit a report if you know the name of the practitioner who was involved in the alleged abuse
- you must not include the patient's name without his or her written consent.

Module Summary



Section 1(3) of the Health Professions Procedural Code (Schedule 2 of the *RHPA*) defines sexual abuse of a patient by a member as:

- “sexual intercourse or other forms of physical sexual relations between the member and the patient
- touching, of a sexual nature, of the patient by the member
- behaviour or remarks of a sexual nature by the member toward the patient.”

The Code also states that “sexual nature” does not include touching, behaviour, or remarks of a clinical nature appropriate to the service provided.

The Code identifies sexual abuse of a patient by a health care professional as an act of professional misconduct.

The CMRTO Sexual Abuse Prevention Program can be found in the publication *Prevention of Sexual Abuse of Patients – Introductory Instructor’s Guide for Diploma Programs in Medical Radiation Technology*. Members of the CMRTO must be familiar with the contents of the Sexual Abuse Prevention Program and use the touching and communication principles in their practice.

Section 85.1(1) of the Health Professions Procedural Code (Schedule 2 of the *RHPA*) makes it mandatory to file a written report with the Registrar of the appropriate regulatory College if you have reasonable grounds, obtained in the course of your practice, to believe that a patient has been sexually abused by any member of our College or any other health regulatory College.

Case Study: Sexual Abuse Prevention

Yvette is a medical radiation technologist practising in the specialty of radiation therapy in a cancer centre. Ms. Fedderson is her next patient who has arrived in the radiation therapy department for her first treatment for breast cancer.

Yvette explains the procedure to Ms. Fedderson. Yvette then escorts Ms. Fedderson to the change room, gives her a gown and instructs Ms. Fedderson to remove all her clothing from above her waist and to put on the gown. After giving her patient sufficient time to change in private, Yvette calls Ms. Fedderson to take her to the treatment room. When Ms. Fedderson comes out of the change room, Yvette notices that she has no clothing on underneath the gown.

Question:

What should Yvette do?

Response:

Yvette knows that Ms. Fedderson is probably comfortable in her state of undress due to her European heritage and Yvette does not want to embarrass her patient by drawing attention to the fact that she is naked under the gown. However, Yvette also knows that the CMRTO Sexual Abuse Prevention Program states that patients should be given clear instructions on how to wear the gown and the cancer centre gowning policy states that patients undergoing radiation therapy of the breast should remove clothing from above the waist only.

Yvette gently explains to Ms. Fedderson that perhaps she did not clearly explain the gowning policy to Ms. Fedderson and tells her that she is able to keep her clothing on below the waist. Yvette directs Ms. Fedderson to go back into the change room and to put on her clothing. Yvette waits for Ms. Fedderson and when she is ready, escorts her to the treatment room.

Module 7

The Healing Arts Radiation Protection Act and Regulations

For the specialties (radiography, nuclear medicine and radiation therapy)

Introduction

In 1979, the Minister of Health responded to growing public concerns about exposure to X-Rays by establishing an Advisory Committee on Radiology. This committee recommended that new X-Ray safety legislation be developed. The [*Healing Arts Radiation Protection Act \(HARP Act\)*](#) was passed in 1980 which created the *HARP* Commission. This legislation applies to all M.R.T.(R.)s and M.R.T.(T.)s, as well as to M.R.T.(N.)s who are operating equipment using an X-Ray source, such as bone densitometry units or X-Ray tubes in conjunction with nuclear medicine gamma cameras.

The X-Ray Safety Code is a regulation under the *HARP Act* dealing with X-Ray safety, equipment and performance standards.

Components of the HARP Act

Included in the *HARP Act* and its regulations are provisions which:

- aim to protect the patient by minimizing the radiation exposure in every X-Ray and by ensuring that a radiological image of good diagnostic quality is provided
- require approval for the installation of X-Ray machines in facilities and registration with the Director of X-Ray Safety of the X-Ray machine, its location, and information regarding the owner
- set qualifications for persons authorized to prescribe X-Ray examinations on humans
- set qualifications for persons authorized to operate X-Ray machines used to irradiate humans
- require the appointment of a radiation protection officer at facilities where an X-Ray machine is installed
- require the appointment of a Director of X-Ray Safety for the purposes of the *HARP Act* and the regulations who is the head of the X-Ray Inspection Service of the Ministry of Health and Long-Term Care

Persons qualified to apply ionizing radiation to humans

Section 5 of the *HARP Act* defines who is able to operate an X-Ray machine for the purpose of irradiating a human being. MRTs registered with the CMRTO are qualified to operate X-Ray machines to irradiate humans. Other qualified persons include:

- 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 Chiropractors of Ontario who has been continuously registered as a chiropractor under the Chiropractic Act and the Chiropractic Act, 1991 since before November 1, 1980 or who is a graduate of a four-year course of instruction in chiropractic
- a person registered as an osteopath under the Drugless Practitioners Act
- a member of the College of Dental Hygienists of Ontario

No person may irradiate humans unless the X-Ray machine meets the standards set out in the regulations under the *HARP Act*. Also, no person shall cause or permit any other person to operate an X-Ray machine for the irradiation of a human being unless the other person meets the qualifications and requirements described in Section 5 or prescribed by the regulations under the *HARP Act*. This means that the *HARP Act* does not permit delegation of the application of ionizing radiation.

Persons qualified to prescribe X-Rays on humans

Under Section 6 of the *HARP Act*, only the following health practitioners may prescribe or order the operation of an X-Ray machine for the irradiation of a human being:

- 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 Chiropractors of Ontario who has been continuously registered as a chiropractor under the Chiropractic Act and the Chiropractic Act, 1991 since before November 1, 1980 or who is a graduate of a four-year course of instruction in chiropractic
- a person registered as an osteopath under the Drugless Practitioners Act

In addition, registered nurses who hold an extended class certificate of registration [RN(EC)] with the College of Nurses of Ontario are authorized to order specific types of X-Rays. The specific types of X-Rays which registered nurses with an extended class certificate of registration [RN(EC)] may order are: chest and ribs; hand, wrist, arm (up to and including the head of the humerus); foot, ankle, leg (up to and including the head of the femur); and mammography. The registered nurse in the extended class will complete the requisition and provide an identifier, RN(EC), after his/her signature to confirm his/her legal authority to order the X-Ray. (See the CMRTO publication [*What You Must Know About Registered Nurses in the Extended Class*](#) for more information.)

Proper authorization for performing a radiological procedure

MRTs need to ensure that they have a properly completed prescription (also known as a requisition or doctor's note) for the irradiation of a human and the proper authorization from a person who is qualified to prescribe the application of ionizing radiation, before proceeding to perform any radiological procedure on a patient. You should consult the standards of practice and your department policies and procedures to determine what information is required for the requisition or prescription. The application of ionizing radiation to a patient without the proper authorization for the radiological procedure is in contravention of the *HARP Act* and is considered professional misconduct under the professional misconduct regulations made under the *MRT Act*.

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

Revised Regulations of Ontario 1990, Regulation 543 made under the *HARP Act*, is known as the X-Ray Safety Code. The Code can be found [here](#).

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

1. Equipment
2. Quality Control
3. Patient Exposures

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. Standards for construction and function of X-Ray machines are also set out in the federal Radiation Emitting Devices Act (RED Act). One of the responsibilities of a radiation protection officer is to test any new X-Ray machine installed in a facility to ensure that it complies with the provisions of the RED Act and its regulations, as well as with the *HARP Act* and its regulations.

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.

Patient exposures

A department or clinic's quality control program must include measures relating 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 owner or other person who has the management and control of an X-Ray machine is required to designate a radiation protection officer (RPO).

The duties of the RPO include:

- Ensuring that all persons who operate X-Ray machines meet the qualifications and requirements under the *HARP Act* and the X-Ray Safety Code
- establishing and maintaining procedures and tests for X-Ray machines and equipment that ensure compliance with the regulations made under the *HARP Act*
- ensuring that personal protective equipment (aprons and shields) are available for use by staff and patients.
- forwarding results of post-installation tests to the Director of X-Ray Safety within 60 days of the installation of a new or used X-Ray machine
- maintaining quality control records
- ensuring the patient entrance exposures (see Table Six under the Code) for the specified radiological view and specified body thickness are not exceeded at the specified source-to-image distance
- informing the Director of X-Ray Safety of the Ministry of Health and Long-Term Care, forthwith, of:
 - an accident involving an X-Ray machine
 - an overexposure to radiation involving a patient or patients
- ensuring that a written report concerning the accident or overexposure is received by the Director of X-Ray Safety of the Ministry of Health and Long-Term Care no later than five days after the occurrence of the incident

Module Summary



The *Healing Arts Radiation Protection Act (HARP Act)* is legislation regulating the use of X-Ray machines for the irradiation of a human being for diagnostic or therapeutic purposes. The *HARP Act* determines the qualifications for persons who are allowed to order X-Rays and those persons who are allowed to operate X-Ray machines used to irradiate human beings. 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*. 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 by the regulations under the *HARP Act*.

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.

Under the *HARP Act*, maximum exposure rates are set for X-Ray and fluoroscopy equipment.

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 for 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.

Case Study: Healing Arts Radiation Protection Act

James is a medical radiation technologist working in a small hospital in south-eastern Ontario. He is on-call every second week to cover evening and weekend emergencies. The department is staffed from 0900–1700 hours Monday to Friday only. While James is taking trauma X-Rays on a young woman involved in car accident, an emergency nurse comes into the X-Ray area and asks James to do an ankle X-Ray on a patient that she is looking after. James notes that the requisition has been signed by the RN and no one else. In response to his inquiry, she tells James that Dr. Park allows her to order X-Rays on extremities after she has done an assessment. James checks in his policy manual and finds that there is no policy for this type of order. James also knows that the nurse does not hold an extended class certificate of registration [RN(EC)] from the College of Nurses of Ontario.

Question:

What should James do?

Response:

A nurse is not one of the persons qualified to prescribe the application of ionizing radiation listed under Section 6 of the *HARP Act*. Therefore, James does not have a properly authorized requisition as required by the CMRTO Standards of Practice and the department policies and procedures. If James performs the X-Ray procedure with only the RN's signature he will be in contravention of the *HARP Act* and the College's Standards of Practice.

In this case James needs to contact the physician responsible for the patient in order to obtain the required authorization before doing the X-Ray procedure.

Module 8

The Nuclear Safety and Control Act and Regulations

Specialties of nuclear medicine and radiation therapy only

Introduction

The [*Nuclear Safety and Control Act \(NSC Act\)*](#) is federal legislation governing certain aspects of the practice of nuclear medicine and radiation therapy in Ontario. The *NSC Act* came into force on May 31, 2000 and replaced the former *Atomic Energy Control Act*.

Under the *NSC Act*, the Canadian Nuclear Safety Commission (CNSC) has a clear mandate to establish and enforce standards for the protection of health, safety and the environment with respect to the possession and use of nuclear substances and other activities related to nuclear energy. The CNSC regulates activities involving nuclear energy or materials in Canada. It has jurisdiction over nuclear power plants and nuclear research facilities, the operation of uranium mines, the use of radioisotopes in various industries, and the use of radioisotopes and equipment for medical diagnoses and cancer treatment.

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*. Medical radiation technologists working in nuclear medicine departments and such clinics should check the terms and conditions of the facility's CNSC licence for more information. Note, however, bone densitometry units using an X-Ray source are governed by the *Healing Arts Radiation Protection Act* (see Module 7).

In cancer centres the use of radioisotopes for brachytherapy, cobalt teletherapy units and linear accelerators are regulated by the *NSC Act*. Medical radiation technologists practising in radiation therapy should check the terms and conditions of the facility's CNSC licence for more information. Computerized tomography units and fluoroscopy units used for simulation are governed by the *HARP Act* (see Module 7).

Regulations under the *NSC Act* cover licensing of sites such as hospitals and clinics, obligations of licensees, contamination issues, maintenance of records, and reporting responsibilities. These regulations also outline the responsibilities of nuclear energy workers, including safe work habits when handling radioactive pharmaceuticals and radioactive sources. Dose limits are set for workers, with specific exposure limits for pregnant workers. Another regulation requires a licensee to educate patients who have received therapeutic doses of radiopharmaceuticals about ways in which they can reduce the radiation exposure to people around them. The *NSC Act* also

has requirements pertaining to containers and devices for storage and transportation of a radioactive substance as well as requirements for warning signs and security.

Requirements affecting the practice of medical radiation technologists in the specialties of nuclear medicine and radiation therapy are found in the following regulations made under the *NSC Act*:

- General Nuclear Safety and Control Regulations
- Radiation Protection Regulations
- Class II Nuclear Facilities and Prescribed Equipment Regulations
- Nuclear Substances and Radiation Devices Regulations
- Packaging and Transport of Nuclear Substances Regulations

Information regarding the CNSC, the *NSC Act* and the regulations can be found at the following: <http://www.nuclearsafety.gc.ca>.

The Obligations of Licensees under the Nuclear Safety and Control Act

Under the regulations made under the *NSC Act*, the licensee (the nuclear medicine department, nuclear medicine clinic, or radiation therapy department) has specific obligations to the public and the nuclear workers. These obligations include, but are not limited to, the following:

S.12(1) of General Nuclear Safety and Control Regulations

- ensuring the presence of a sufficient number of qualified workers to carry on the licensed activity safely and in accordance with the Act, the regulations and the facility licence
- training the workers to carry on the licensed activity in accordance with the Act, the regulations and the facility licence
- taking all reasonable precautions to protect the environment and the health and safety of persons and to maintain security
- providing the devices required by the Act, the regulations made under the Act and the licence and maintaining them within the manufacturer's specifications
- requiring that every person at the site of the licensed activity use equipment, devices, clothing and procedures in accordance with the Act, the regulations and the licence
- instructing the workers on the physical security program at the site of the licensed activity and on their obligations under the program
- keeping a copy of the Act and the regulations that apply to the licensed activity readily available for consultation by the workers

S.7 of Radiation Protection Regulations

- notifying each nuclear energy worker in writing that he or she is a nuclear energy worker
- notifying each nuclear energy worker of the risks associated with radiation to which the worker may be exposed in the course of his or her work, including the risks associated with the exposure of embryos and foetuses to radiation
- notifying each nuclear energy worker of his or her radiation dose levels

S.4 of Radiation Protection Regulations

- implementing a radiation protection program

S.3 of Radiation Protection Regulations

- informing a person of methods for reducing the exposure of others to radiation from that person when a nuclear substance has been administered to the person for therapeutic purposes and before the person leaves the place where the substance is administered

In addition, the licensee is prohibited from using prescribed equipment such as a teletherapy machine or a brachytherapy machine except as directed by a medical practitioner. A licensee is also prohibited from using a radioactive nuclear substance or a radiation device on a person except as directed by a medical practitioner.

The obligations of nuclear energy workers under the Nuclear Safety and Control Act

S.2 of the *NSC Act* defines a nuclear energy worker, for the purposes of the Act, to be a person who is required, in the course of the person's occupation in connection with a nuclear substance or nuclear facility, to perform duties in such circumstances that there is a reasonable probability that the person may receive an effective radiation dose exceeding 1 mSv/year. Under the regulations made under the *NSC Act*, a "worker" is defined as a person who performs work that is referred to in a licence. As a nuclear energy worker (within the meaning of the Act and the regulations) and a worker (within the meaning of the regulation), an MRT in radiation therapy or nuclear medicine has specific obligations.

The obligations of a "worker" include, but are not limited to, the following:

S.17 of General Nuclear Safety and Control Regulations

- using equipment, devices, facilities and clothing for protecting the environment or the health and safety of persons, or for determining doses of radiation, dose rates or concentrations of radioactive nuclear substances, in a responsible and reasonable manner and in accordance with the Act, the regulations made under the Act and the licence
- complying with measures established by the licensee to protect the environment and the health and safety of persons, maintaining security, controlling the levels and doses of radiation, and controlling releases of radioactive nuclear substances and hazardous substances into the environment
- promptly informing the licensee or the worker's supervisor of any situation in which the worker believes there may be
 - i. a significant increase in the risk to the environment or the health and safety of persons
 - ii. a threat to the maintenance of security or an incident with respect to security
 - iii. a failure to comply with the Act, regulations or licence
 - iv. an act of sabotage, theft, loss or illegal use or possession of a nuclear substance, prescribed equipment or prescribed information
 - v. a release into the environment of a quantity of a radioactive nuclear substance or hazardous substance that has not been authorized by the licensee

- observing and obeying all notices and warning signs posted by the licensee in accordance with the Radiation Protection Regulations made under the Act
- taking all reasonable precautions to ensure the worker's own safety, the safety of the other persons at the site of the licensed activity, the protection of the environment, the protection of the public and the maintenance of security

The obligations of a “nuclear energy worker” (as defined by the NSC Act) include, but are not limited to, the following:

S.10 and 11 of Radiation Protection Regulations

- informing the licensee of the worker's given names, surname and any previous surname, social insurance number, sex, date and location of birth and the worker's radiation dose record
- notifying the licensee in writing when a nuclear energy worker becomes aware that she is pregnant

Module Summary



The *Nuclear Safety and Control Act* is federal legislation to regulate the possession and use of nuclear substances and other activities relating to nuclear energy. 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. 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.

Case Study: Radioisotope Safety

Susan is a medical radiation technologist in the specialty of nuclear medicine and has recently completed a radiation safety training program provided by her facility. Susan is aware of the need for the nuclear medicine department to maintain all the requirements of the CNSC licence and is familiar with all the regulations and guidelines from the CNSC.

One day during her shift Susan enters the radiopharmacy and finds Anna, a fellow technologist, eating her lunch in the area. Susan promptly informs Anna that eating is definitely not permitted in this area and that she should have her lunch in a different place.

Anna retorts that she is much too busy to get away for a break and that if she leaves she will put everyone behind for the day and that will mean overtime pay. Anna reminds Susan of the recent staff meeting where staff were told there would no longer be any overtime being paid.

Question:

What should Susan do?

Response:

Susan should make sure that Anna removes the food from the area immediately. Susan should also ensure that the staff understand the requirements of the CNSC and the obligations of each nuclear energy worker under the NSC Act and regulations. Susan is also required to notify the facility of the breach in safety and, therefore, she should bring her concerns to her supervisor. Susan's supervisor should reinforce to all the staff that failure to comply with the CNSC requirements poses a safety hazard which could result in the facility losing its licence.

Module 9

The Health Care Consent Act

All specialties (radiography, nuclear medicine, radiation therapy and magnetic resonance)

Introduction

The [*Health Care Consent Act \(HCCA\)*](#) is the Act governing patient consent to treatment in Ontario. It came into effect March 29, 1996. As a medical radiation technologist (MRT), you are considered a health practitioner for the purposes of the *HCCA* and need to be familiar with its requirements. This Act applies to most treatments wherever they are provided and to most of the regulated health professions.

As its central principle, the *HCCA* states that a health practitioner who proposes a treatment for a person will not administer the treatment, and will take reasonable steps to ensure that it is not administered, unless he or she believes that the person is:

- capable with respect to the treatment, and has given consent; or
- incapable with respect to the treatment, and the person's substitute decision-maker has given consent in accordance with the *HCCA*.

This means that any health practitioner who proposes a treatment for a person must not administer the treatment, and must take reasonable steps to ensure that the treatment is not done unless a valid consent has been given by the person or the person's substitute decision-maker.

Definitions under the HCCA

You need to understand several terms and concepts used within the legislation in order to comply with its requirements. This list of definitions will help you understand your responsibilities in obtaining or ensuring that consent has been obtained by another health care provider.

Capable:

A patient is mentally capable of consenting if he or she is able to:

- understand the information relevant to making a decision about the proposed treatment, and
- appreciate the reasonably foreseeable consequences of accepting or refusing the treatment, or of making no decision.

Consent:

When the patient does consent, the consent must:

- relate to the treatment
- be informed
- be given voluntarily, and
- not have been obtained through misrepresentation or fraud.

Proposer:

Under the *HCCA*, the health practitioner who proposes the treatment is responsible for assessing the capacity of the patient and for obtaining the informed consent. The “proposer” is the health practitioner who is:

- responsible for deciding what treatment should be offered
- able to provide the information that a reasonable person in the same circumstances would need to give informed consent, and
- able to answer questions about the information.

Treatment:

Treatment is defined as anything that is done for a therapeutic, preventive, palliative, diagnostic, cosmetic or other health-related purpose, and includes a course of treatment, plan of treatment, or community treatment plan.

Course of treatment:

A course of treatment is defined as a series or sequence of similar treatments administered to a person over a period of time for a particular health problem.

Plan of treatment:

A plan of treatment is defined as a plan that:

- is developed by one or more health practitioners
- deals with one or more of the health problems that a person has and might, in addition, deal with one or more of the health problems that the person is likely to have in the future, given the person’s current health condition, and
- provides for the administration to the person of various treatments or courses of treatment and might, in addition, provide for the withholding or withdrawal of treatment in light of the person’s current health condition.

Community treatment plan:

A community treatment plan under the *HCCA* has the same meaning as in the *Mental Health Act*. Under the *Mental Health Act*, a community treatment plan is defined as a plan (described in Section 33.7 of the *Mental Health Act*) that is a required part of a community treatment order.

Guidelines for the MRT

Only a health practitioner who has the knowledge required to obtain informed consent—including being able to answer the person’s questions about the treatment—is able to get consent.

The health practitioner giving an order for a treatment is responsible for ensuring that informed consent for that treatment is obtained. A health practitioner performing a treatment under an order (as is often the case for MRTs) should be able to rely on the informed consent having been obtained if it is reasonable to do so.

If a “plan of treatment” is to be proposed for a patient, one health practitioner may, on behalf of all the health practitioners involved in the plan of treatment,

- propose the plan of treatment
- determine the person’s capacity with respect to the treatments within the plan of treatment, and
- obtain a consent or refusal of consent from either the patient, if capable, or the patient’s substitute decision-maker, if the patient is found to be incapable.

MRTs perform procedures based on an order from a physician. Therefore, in most circumstances, it is the responsibility of the physician to assess the capacity of the patient and to obtain informed consent.

Although the responsibility to obtain the patient’s informed consent rests, in most circumstances, with the physician, as an MRT you still have certain obligations, which include the following:

- You should ensure that the physician obtained the patient’s consent by checking if it is documented in patient record, or finding other reasonable evidence that consent was given.
- Before beginning the procedure or treatment, you should fully explain to the patient what you are going to do and why. This is particularly important when the procedure forms part of a plan or a course of treatment.
- If the patient gives any sign of not knowing or understanding the procedure, you should not perform it, even if the patient’s record indicates that consent has been given. You should refer the patient back to the physician to ensure informed consent is obtained.

There could be indications that a patient has withdrawn consent to the procedure, or he or she might even resist. Assuming the patient is mentally capable, he or she can withdraw consent to a procedure at any time. If there are any indications consent has been withdrawn, you should not perform or continue to perform the procedure until the patient’s consent is obtained.

Although a patient might have been capable of giving consent at the beginning of a course of treatment, he or she could become incapable of doing so at some stage during the course of treatment. Especially in the context of radiation therapy, you must be aware of signals that a patient might no longer be capable of giving consent. To ensure the patient’s continuing consent

to the course of the treatment, you might be obliged to check that the physician is assessing the patient's capacity on an ongoing basis.

If you are in doubt about whether or not the patient is capable of giving consent, you should refer the patient back to the responsible physician.

Make certain your hospital or facility has procedures or protocols which address the following:

- Who is the appropriate health care provider responsible for informing the patient about the proposed treatment and for obtaining the patient's consent?
- How will the patient's consent be documented so other members of the health care team know it was obtained?
- What steps should be taken if a health care professional believes the patient's consent was not informed, or that the patient has changed his or her mind, or that he or she is not, or was not, capable of giving consent to the proposed treatment?

Review of the HCCA

To fully appreciate these guidelines, it is important to understand in more depth the following provisions of the *HCCA*:

Activities not considered "treatment" under the *HCCA*:

Certain activities that would otherwise be considered a treatment have been specifically excluded from the Act. Some of these are:

- The assessment or examination of a person to determine the general nature of the person's condition
- The taking of a person's health history
- The communication of an assessment or a diagnosis
- The admission of a person to a hospital or other facility
- Assistance with, or supervision of, hygiene, washing, dressing, grooming, eating, drinking, elimination, ambulation, positioning or any other routine activity of living
- A treatment that, in the circumstances, poses little or no risk of harm to the person.

Since the use of ionizing radiation (or electromagnetism for MRI) is for either diagnostic or therapeutic purposes, and it is unlikely that any of the above exceptions apply, it can be assumed the procedures performed by the MRT will be governed by the *HCCA*.

Consent must be specific and informed:

Under the *HCCA*, consent must be specific and informed. To ensure consent is informed, the consent-giver must receive all the information that a reasonable person in the same circumstances needs to make the decision. This includes information about:

- the nature of the treatment
- expected benefits of the treatment

- material risks of the treatment
- material side effects of the treatment
- alternative courses of action
- the likely consequences of not having the treatment

In addition, the health practitioner must respond to the consent-giver’s requests for other information about the above aspects of the treatment.

Although the *HCCA* does not define the meaning of “material side effects of the treatment”, it is likely that they include:

- those which are probable or likely to occur
- those which are possible if they carry serious consequences
- those which a reasonable person in the patient’s specific circumstances needs to know about to make a decision to give or refuse consent.

The consent may be in writing or it may be oral, but it must be obtained before treatment begins. It is important to remember that consent can be withdrawn at any time.

The *HCCA* permits a health practitioner to presume that consent to treatment includes consent for variations or adjustments in the treatment, and the continuation of the treatment in a different setting, if the expected benefits, material risks or material side effects do not change significantly.

Language and culture might affect the giving of informed consent to treatment. The health practitioner should use—to the best of his or her ability—a means of communication which considers the person’s education, age, language, culture and special needs. Where the health practitioner and the patient (or if the patient is incapable, the substitute decision-maker) cannot communicate because of language, an interpreter will be required. (See also “Exception in Emergency Treatment” below.)

Who is authorized to give consent to a treatment?

It is the patient who gives consent if the health practitioner proposing the treatment determines that the patient is capable. However, if the health practitioner believes the patient is incapable with respect to the treatment, consent must be obtained from a substitute decision-maker. The *HCCA* describes who can be a substitute decision-maker.

Exception in emergency treatment

When emergency treatment is needed, the *HCCA* makes an exception to the usual requirements for obtaining consent. An emergency is a situation in which a person appears to be suffering severely or is at risk of sustaining serious bodily harm if the treatment is not administered promptly.

The exception applies when there is an emergency and:

- the patient is incapable with respect to the treatment; and
- the delay to obtain consent from a substitute decision-maker will prolong the suffering or put the person at risk of sustaining serious bodily harm

The exception also applies when there is an emergency and:

- the patient is apparently capable, but communication cannot occur because of a language barrier or a disability;
- reasonable steps have been taken to find a practical means of communicating with the patient, but such steps have been unsuccessful;
- the delay required to find a practical means to communicate will prolong the suffering or put the person at risk of sustaining serious bodily harm; and
- there is no reason to believe that the person does not want the treatment.

In addition, a health practitioner may conduct an examination or diagnostic procedure without consent to determine if there is an emergency. This can be done if the practitioner believes the person is mentally incapable with respect to the examination or procedure, or, where there is a language barrier or disability preventing communication, if attempts at communication fail.

A person who is mentally capable has a right to refuse treatment, even if it is an emergency.

Capacity and incapacity under the HCCA

Mental capacity, which is defined above, is specific to the treatment being performed. It might also depend on timing; a person may be considered incapable with respect to treatment at one time and capable at another. There is no fixed age at which a person becomes mentally capable of consenting to treatment. In other words, children who are mentally capable can consent to or refuse a procedure.

The *HCCA* states that a person is *presumed* to be capable with respect to treatment and a health practitioner is entitled to rely on this presumption, unless there are reasonable grounds to believe otherwise. Some observations which could give rise to doubts about the person's capacity include:

- the person shows evidence of confused or delusional thinking, or appears unable to make a settled choice about treatment
- the person is experiencing severe pain or acute fear or anxiety
- the person appears to be severely depressed
- the person appears to be impaired by alcohol or drugs.

The following factors on their own should not cause the health practitioner to presume that the person is incapable with respect to a treatment:

- the existence of a psychiatric or neurological diagnosis
- the existence of a disability, including a speech or hearing impairment

- refusal of a proposed treatment contrary to the advice of the health practitioner or of another person
- a request for an alternative treatment, or
- the person's age.

Providing consent when the patient is incapable

The *HCCA* provides the following hierarchy of substitute decision-makers (in order of authority):

- a guardian who has been appointed by the court under the Substitute Decisions Act 1992, and who has authority to consent to or refuse treatment
- an attorney for personal care under a power of attorney that confers authority to refuse or consent to treatment
- a representative appointed by the Consent and Capacity Board (the "Board")
- a spouse or partner of the patient
- a child (at least 16 years of age) of the patient, a parent of the patient, or an agent of the Children's Aid Society or some other person who is lawfully entitled to give or refuse consent to the treatment instead of the parent. (A parent who only has a right of access is not included in this level of hierarchy. A parent is not included when the Children's Aid Society or other person is lawfully entitled to give or refuse consent to treatment instead of the parent.)
- a parent of the patient who only has a right of access
- a brother or sister of the patient
- any other relative of the patient, or
- the Public Guardian and Trustee.

The substitute decision-maker must be at least 16 years of age (unless he or she is a parent of the patient), capable with respect to consenting to the treatment, available, willing to assume responsibility for giving or refusing consent, and is not prevented by court order or separation agreement from having access to the patient or giving or refusing consent on behalf of the patient.

Steps to obtain consent to treatment

The following are the steps that the health practitioner proposing a treatment must follow to gain consent:

1. Determine the patient's capacity to consent to the proposed treatment.
2. The patient makes the decision, if he or she is capable.
3. If the patient is believed to be incapable, the health practitioner should determine whether or not the provision for *the emergency treatment of an incapable person without consent* applies.
4. If the patient is incapable and the emergency treatment provisions do not apply, the health practitioner must comply with College guidelines on the provision of information to incapable patients.

5. If the patient is incapable (and the emergency treatment provisions do not apply), the health practitioner must wait until certain time periods have elapsed before beginning treatment, if he or she is informed that:
 - a. the patient either intends to apply or has applied to the Board:
 - i. for a review of the finding of incapacity, or
 - ii. for the appointment of a representative to give or refuse consent on his or her behalf,or
 - b. another person intends to apply, or has applied to the Board to be appointed representative of the incapable person to give or refuse consent.The health practitioner cannot start treatment under these circumstances until he or she is certain that no application is being made to the Board, or until the Board has made a decision and that it has not been appealed.
6. When the health practitioner gets past Step 5 above, he or she must identify the appropriate substitute decision-maker in accordance with the provisions of the *HCCA*, and obtain consent to the proposed treatment.

Protection from liability

A health practitioner is not liable for administering treatment without consent if he or she believes, on reasonable grounds and in good faith, that consent, sufficient for the purposes of the *HCCA*, was given.

The *HCCA* also protects a practitioner who withholds or withdraws treatment if this is in accordance with a plan of treatment and with a consent to a plan of treatment which the health practitioner believes, on reasonable grounds and in good faith, to be sufficient for the purposes of the *HCCA*.

However, without consent, it is professional misconduct, under the Professional Misconduct Regulation made under the *Medical Radiation Technology Act*, for an MRT to do anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose when a consent is required by law.

Special guidelines for MRTs who propose a treatment with respect to patients found incapable of making treatment decisions

Some MRTs—for example, those who operate an X-Ray machine in breast screening programs—may propose a treatment. This is because mammograms do not need a physician’s order when they are part of a breast screening program. In such cases, there is a special set of guidelines that apply with respect to patients found incapable of making treatment decisions. The *HCCA* provides certain rights to these individuals. MRTs who are working in the breast screening program should review the special guidelines provided in the CMRTO publication *What You Must Know About...the Health Care Consent Act*. This publication is available [here](#).

Module Summary



The *Health Care Consent Act (HCCA)* requires that before a health care procedure is performed on a patient, consent must be obtained. If the patient is capable with respect to the treatment, the patient is the person who gives consent. If the patient is found to be incapable with respect to the treatment, another person may give consent in accordance with the *HCCA*.

A person is mentally capable of consenting to treatment if the person is able to understand the information relevant to making a decision about the proposed treatment and appreciate the reasonably foreseeable consequences of accepting or refusing the treatment or of making no decision.

A consent must relate to the treatment, be informed, be given voluntarily and not have been obtained through misrepresentation or fraud.

The health practitioner who proposes the treatment is responsible for assessing the capacity of the patient and for obtaining consent. In most cases for MRTs, it would be the physician ordering the procedure. An MRT who performs a treatment or procedure under an order of a physician should be able to rely on the informed consent having been obtained if it is reasonable to do so.

Although in most cases it is the physician who assesses capacity and obtains consent, the MRT must still check for documentation of consent having been obtained and fully explain the procedure or treatment.

If an MRT believes that the patient does not understand the procedure or that consent has not been given or has been withdrawn, the patient should be referred back to the physician. The procedure should not be done until the MRT is satisfied that consent has been obtained either from a capable patient or, in the case of an incapable patient, from his or her substitute decision-maker.

Informed and specific consent means that the patient understands: the nature of the treatment; the expected benefits of the treatment; the material risks of the treatment; the material side effects of the treatment; any alternative courses of action; and the likely consequences of not having the treatment. It also means that the person receives responses to his or her requests for additional information about those matters.

Remember that consent is an ongoing process and can be withdrawn at any time. If a patient withdraws his or her consent, the MRT must discontinue the treatment or procedure.

When emergency treatment is required, treatment may be given prior to obtaining consent under certain specified conditions. This can occur when the person is incapable with respect to the treatment and when a delay will prolong the suffering or put the person at risk of sustaining serious bodily harm. This can also occur when there is a language barrier or disability preventing

communication; when reasonable steps have been undertaken to communicate with the patient, but they have been unsuccessful; when a delay will prolong the suffering or put the person at risk of sustaining serious bodily harm; and there is no reason to believe that the person does not want the treatment. However, a capable person has the right to refuse treatment even in an emergency.

Case Study 1: Health Care Consent Act

Tony is an MRT in the specialty of nuclear medicine working with out-patients. Mrs. Green, an elderly woman, is Tony's next patient. He calls her into the imaging room and explains the procedure for a liver scan. Mrs. Green looks very confused and tells Tony there is nothing wrong with her liver and the problem is with the swelling in her right leg. Her doctor had told her that she needed this test to look for a "blood clot."

Question:

What should Tony do?

Response:

Mrs. Green does not have an adequate understanding of what the ordered test involves. This may be because she does not remember the explanation or that Tony has explained it in a different way. In either case, there is a problem with the "informed" aspect of the consent. There is also confusion over what test should have been ordered. Tony should not proceed with either a liver scan or a lung scan for deep vein thrombosis. Tony should contact the physician who ordered the procedure to find out which test was ordered for Mrs. Green. If, in fact, a mistake was made on the requisition, Tony should have the physician explain this to Mrs. Green and obtain her consent for the procedure. If, however, the correct test was ordered, then Mrs. Green should be given an adequate explanation by the physician for the reasons for the liver scan. Remember, it is the responsibility of the person ordering the test to obtain consent. Tony should explain the procedure, but it is the referring physician who is able to fully explain the reason for the procedure, the expected benefits, material risks, material side effects, alternative courses of action, and likely consequences of not having the treatment.

Case Study 2: Health Care Consent Act

Diane is 14 years old and has a tumor in her left femur. Christine, the radiation therapist, has performed a number of treatments on Diane. This day, Diane looks particularly “down” and is not very talkative.

Christine proceeds to position Diane and is about to begin the radiation treatment when Diane bursts into tears and shouts, “I can’t take it any more! Why don’t all you people just let me die and get it over with!”

Diane’s mother, who is with Christine, says, “Just do the treatment. Diane’s having a bad day. She’ll be better tomorrow. I’m her mother and I know what’s best for her.”

Question:

What should Christine do?

Response:

Remember that under the *HCCA* there is no minimum age for giving or withdrawing consent. Therefore, as long as Diane is capable with regard to the treatment, she can withdraw her consent to the treatment and refuse the treatment. Diane’s mother cannot act as a substitute decision-maker if Diane is capable of deciding to give or refuse consent to the treatment.

Christine should inform the physician who ordered the therapy about the situation. The physician can talk to Diane again to ensure that she is fully informed of the reasons for the treatment, the expected outcome and the implications of not having the treatment. But remember that the decision ultimately rests with the individual having the procedure done. Diane may be fully informed; therefore, as long as she is capable with regard to the treatment at the time of withdrawal of consent, it is her legal right to refuse the treatment.

Certificate of Completion

*respecting laws regulating
the practice of
Medical Radiation Technology in Ontario*

To Be Returned To:

College of Medical Radiation Technologists of Ontario
375 University Avenue, Suite 300
Toronto, ON M5G 2J5
Fax: (416) 975-4355

The undersigned hereby certifies that:

My name and address are as follows:

1. _____
Name of Applicant

Address of Applicant

2. I have reviewed and understood the following Modules of the CMRTO Legislation Learning Package (*please check appropriate box*):

- Module 1: The Regulated Health Professions Act and Regulations
- Module 2: The Medical Radiation Technology Act and Regulations
- Module 3: The CMRTO Standards of Practice
- Module 4: The CMRTO Quality Assurance Program
- Module 5: The CMRTO Comprehensive Guidelines for Acting in Accordance with the *Regulated Health Professions Act* Scope of Practice/Controlled Acts Model (Comprehensive Guidelines)
- Module 6: The CMRTO Sexual Abuse Prevention Program
- Module 7: The Healing Arts Radiation Protection Act and Regulations
- Module 8: The Nuclear Safety Control Act and Regulations
- Module 9: The Health Care Consent Act

3. I am aware of and will comply with the following statutes, regulations, policies, and guidelines, both those that deal with the regulation of the practice of medical radiation technology in general, and those that are applicable to my specialty in particular:

Legislation applicable to all four specialties – Radiography, Nuclear Medicine, Radiation Therapy and Magnetic Resonance:

- Regulated Health Professions Act and Regulations
- Medical Radiation Technology Act and Regulations
- Health Care Consent Act
- CMRTO Sexual Abuse Prevention Program

Specialties of Radiography, Nuclear Medicine and Radiation Therapy only:

- Healing Arts Radiation Protection Act and Regulations

Specialties of Nuclear Medicine and Radiation Therapy only:

- Nuclear Safety and Control Act and Regulations

Date

Signature of Applicant

Reviewed by College of Medical Radiation Technologists of Ontario:

Date

CMRTO Staff