



What you must know about...

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Introduction

As regulated health professionals, members of the College of Medical Radiation Technologists of Ontario (CMRTO) are accountable to their patients and the public to provide safe, effective and ethical medical radiation and imaging technology services. Members of the CMRTO do this every day by ensuring that their practice meets the legislative requirements and standards of the profession.

In this publication, “members” refers to all members of the CMRTO; that is, members in all of the five specialties: radiography, radiation therapy, nuclear medicine, magnetic resonance and diagnostic medical sonography. In this publication, “profession” refers to the profession of medical radiation and imaging technology.

Members of the CMRTO are qualified medical radiation and imaging professionals who use ionizing radiation, electromagnetism, and soundwaves to produce diagnostic images of a patient’s body or who administer radiation to treat patients for certain medical conditions, on the order of a physician or other authorized health professional.

Members of the CMRTO must perform medical radiation and imaging procedures in accordance with the Standards of Practice of the profession. The Standards of Practice describe what each member is accountable and responsible for in practice. The Standards of Practice reflect the knowledge, skills and judgement that members need in order to perform the services and procedures that fall within the scope of practice of the profession.

The purpose of this publication is to outline the information that members must understand regarding the performance of medical radiation and imaging technology procedures in accordance with the Standards of Practice, including:

1. performing procedures within the scope of practice of the profession,

2. having the knowledge, skills and judgement to perform a procedure, and
3. ensuring that the appropriate order authorizing the performance of a procedure, treatment or intervention is in place prior to performing that procedure, treatment or intervention.

These requirements are discussed in detail in Part I below. Part I also includes a summary of the conditions that must be met prior to performing a procedure, treatment or intervention.

Part II of this publication touches on related topics such as delegation, fetal ultrasound for non-medical purposes and issues affecting students and applicants prior to their registration with CMRTO.

Part I

Requirement 1: Scope of practice

Members must perform procedures, including authorized acts, only in the course of engaging in the practice of medical radiation and imaging technology.

The scope of practice statement for the profession under the *Medical Radiation Technology Act* is as follows:

“The practice of medical radiation [and imaging] technology is the use of ionizing radiation, electromagnetism [soundwaves] and other prescribed forms of energy for the purposes of diagnostic or therapeutic procedures, the evaluation of images and data relating to the procedures and the assessment of an individual before, during and after the procedures.”¹

Requirement 2: Knowledge, skills and judgement

The Standards of Practice of the profession state that members must have and maintain the knowledge, skills and judgement to safely perform procedures undertaken in the course of the practice of the profession.

Members are required to have the knowledge, skills and judgement necessary to perform the procedure, treatment or intervention. If they do not, they **must** refrain from performing the procedure, treatment or intervention – even if a valid order is in place.

¹The text in square brackets provides the changes that will come into effect when the *Medical Radiation and Imaging Technology Act* comes into force.

What should a member do if they are not competent to perform a procedure?

Members must maintain competence in their current area(s) of practice, must refrain from acting if not competent and must take appropriate action to address the situation. The appropriate action when not competent to perform a procedure will vary depending on the situation.

For example: if performing the procedure is part of a member's regular role expectations within a particular practice setting, then the member should obtain the competencies necessary to provide safe, effective and ethical services to those patients in their care. The member may also consult with their supervisor or manager to determine how this may be achieved. On the other hand, if performing the procedure is not part of a member's regular role expectations, the appropriateness of obtaining the competencies should be evaluated.

In making this decision, the member is ultimately responsible to ensure that they are competent to provide the medical radiation or imaging services required by patients within a particular practice setting.

Requirement 3: Orders

The CMRTO's Standards of Practice require members to ensure that the appropriate order authorizing the performance of a procedure, treatment or intervention is in place.² This applies to all procedures performed by all members in all of the five specialties: radiography, radiation therapy, nuclear medicine, magnetic resonance and diagnostic medical sonography.

What is an order?

An order is an authorizing statement from a regulated health professional with prescribing authority, permitting members to perform a procedure, treatment or intervention that falls within a member's scope of practice. An order may also be called a requisition or treatment plan.

Members must ensure that the appropriate order is in place **prior** to performing a procedure, treatment or intervention.

²This standard of practice is set out in indicator (d) of Standard 3: Diagnostic and Therapeutic Procedures. The Standards of Practice are sent to all CMRTO members by email and are available on the CMRTO website at www.cmrto.org.

Who can issue an order?

The regulated health professional with ordering authority will vary depending on the procedure, treatment or intervention.

The source of the ordering authority will also vary, as set out in the table below:

Type of procedure, treatment or intervention	Required order(s)
Application of ionizing radiation	The order must be from a physician or other authorized health professional listed in the <i>Healing Arts Radiation Protection Act</i> or regulations ^{3,4}
Nuclear medicine procedures	The order must be from a person authorized under the regulations made under the <i>Public Hospitals Act</i> or in accordance with generally accepted professional standards established under the <i>Independent Health Facilities Act</i>
Application of electromagnetism for magnetic resonance imaging procedures	The order must be from a physician or another authorized health professional listed in the Controlled Acts regulation made under the <i>Regulated Health Professions Act</i> ⁵
Application of soundwaves for diagnostic medical sonography	The order must be from a physician or another authorized health professional listed in the Controlled Acts regulation made under the <i>Regulated Health Professions Act</i> ⁶

³On a date to be named by proclamation of the Lieutenant Governor, the *Healing Arts Radiation Protection Act*, RSO 1990, c H 2 will be repealed and replaced with the *Oversight of Health Facilities and Devices Act, 2017*. If and when the Act is proclaimed, it will expand the current scope of regulated devices beyond only x-ray machines to all existing and emerging energy applying and detecting medical devices (EADMDs). Until such a time as the Act is proclaimed, the HARP Act continues in force.

⁴See Appendix A.

⁵See Appendix B.

⁶See Appendix C.

<p>Performance of authorized acts⁷, which are:</p> <ul style="list-style-type: none"> • administering substances by injection or inhalation; • tracheal suctioning of a tracheostomy; • administering contrast media or putting an instrument, hand or finger, <ul style="list-style-type: none"> • beyond the opening of the urethra, • beyond the labia majora, • beyond the anal verge, or • into an artificial opening of the body; and • performing a procedure on tissue below the dermis. 	<p>The order must be from a physician.</p>
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What types of orders exist?

An order may be one of two types: (1) direct order or (2) medical directive or protocol.

1. Direct orders

An order may be a direct order for a specific procedure, treatment or intervention, for a specific patient, by a physician or other authorized health professional.

Under the regulations made under the *Public Hospitals Act (PHA)*, every order must be:

- in writing⁸
- dated
- authenticated by the ordering physician or other authorized health professional

The order should also include the details required to perform the procedure, treatment or intervention. For example:

- patient name and date of birth
- date and time the order was made
- name of the procedure or substance being ordered, and, when a substance is being ordered, the details required to administer the substance⁹

⁷Other than the application of electromagnetism for magnetic resonance imaging procedures and the application of soundwaves for diagnostic medical sonography.

⁸Although directed orders are generally in writing, provision has been made pursuant to regulations made under the *Public Hospitals Act* for telephone and electronically transmitted orders. Verbal prescriptions, on the other hand, are made pursuant to the provisions of the *Drug and Pharmacies Regulation Act*.

⁹The details required to administer the substance may include the dosage, the route of administration, and the frequency with which the substance is to be administered.

In order to deal properly with telephone orders or requests, health professionals who work in hospitals governed by the PHA are expected to:

- ensure they have been designated by the hospital administrator as someone who can accept telephone orders
- transcribe the order along with the name of the physician or other authorized health professional who dictated the order, along with the date and time it was received
- sign the order
- ensure that if someone else has transcribed the telephone order, that the person has the authority to accept such orders before procedure, treatment or intervention is performed¹⁰

Members are also encouraged to review their organization's policies about telephone orders or requests.

2. Medical directive or protocol

An order may also be made through a medical directive or protocol (also known as a standing order). A medical directive is an order for a procedure, treatment or intervention for a range of patients who meet specific conditions, authorized by a physician, and implemented by another individual, such as a nurse, physiotherapist, physician assistant or member of the CMRTO.

Medical directives are always written or documented electronically. They cannot be verbal.

Medical directives or protocols must contain:

- a standardized reference number
- identification of the specific procedure, treatment or range of treatments being ordered
- identification of who specifically may implement the procedure under the authority of and according to the medical directive (may be an individual or a group)
- specific patient conditions that must be met before the procedure(s) can be implemented
- any circumstances that must be met before the procedure(s) can be implemented
- any contraindications for implementing the procedure(s)

¹⁰These responsibilities are set out in the Hospital Management Regulation made under PHA at s. 24(3). The Regulation also provides that the physician or other authorized health professional who dictated the order shall authenticate the order on the first visit to the hospital after dictating the order.

- documentation requirements
- quality monitoring mechanisms
- the name and signature of the physician, or other authorized health professional, authorizing the medical directive
- the date and signature of the administrative authority approving the medical directive

When are medical directives or protocols used?

Generally, medical directives or protocols may be used as the authority for performing procedures when a health professional has the knowledge, skills and judgement to determine that the conditions and circumstances described in the medical directive have been met. Procedures that require the direct assessment of a patient by a physician require direct orders and are not appropriate for implementation under a medical directive or protocol.

For example: an order to perform a CT scan on a particular patient would be a direct order from the patient's physician; whereas the injection of the contrast media necessary to complete the CT scan may be covered under a medical directive or protocol from the department's radiologist.

What should a member do if they have concerns about an order or treatment plan?

If a member has a concern about the accuracy or appropriateness of an order or treatment plan, they should take appropriate action to address the situation. Although the appropriate steps may vary depending on the situation, resolving the concerns will involve:

1. discussing the concern directly with the health professional responsible for the order or treatment plan
2. identifying the outcomes desired for resolution
3. providing a rationale and best practice evidence in support of the concern
4. documenting the concern and the steps taken to resolve the concern in the appropriate record

What conditions must be met prior to performing a procedure, treatment or intervention?

The conditions which must be met before performing procedures or treatments are set out in the CMRTO Standards of Practice. In accordance with Practice Standard 3: Diagnostic and Therapeutic Procedures, members must:

1. ensure that the appropriate order authorizing the procedure is in place
2. perform procedures, including authorized acts, only in the course of engaging in the practice of medical radiation and imaging technology
3. not perform procedures contrary to any terms, conditions or limitations placed upon the member's certificate of registration¹¹
4. have and apply the necessary knowledge, skill and judgement to perform and manage the outcomes of performing the procedure safely, effectively and ethically
5. ensure that patient consent has been obtained¹²
6. be responsible and accountable for performing the procedure and managing the outcomes, 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 member's knowledge, skill and judgement, given the situation
 - d. any other factors specific to the situation to ensure the procedure is implemented safely, effective and ethically
7. not perform any procedure or provide any advice which may result in serious bodily harm unless that procedure or advice is within the scope of practice of the profession or the member is authorized or permitted to do so by legislation

At the end of this publication, members will find a decision-making guide to assist them in determining whether or not they should implement a procedure.¹³

¹¹As of January 1, 2018, a condition was added to each member's certificate of registration, as follows: "The member shall practise only in the areas of medical radiation and imaging technology in which the member is educated and experienced." This addition was made to accommodate the different areas within each specialty in which members are practising, and to provide for the three areas of practice of DMS – general, cardiac and vascular.

¹²It is important to note that consent may be withdrawn at any time. If a patient withdraws their consent, a member must discontinue the treatment or procedure, notwithstanding the existence of an order. For more information, please consult the CMRTO publication *What you must know about ... Health Care Consent Act*. This publication contains consent guidelines for members of CMRTO.

¹³See Appendix D.

Part II

Delegation

As discussed in Part I above, the CMRTO's Standards of Practice require members to ensure that the appropriate order authorizing the performance of a procedure, treatment or intervention is in place prior to performing that procedure, treatment or intervention. However, there are instances where a member may be asked to accept and perform procedures beyond the principal expectations of practice. This occurs through the process of delegation, which involves a controlled act that is not authorized to members.

What are controlled acts?

Under the *Regulated Health Professions Act, 1991* (RHPA), regulated health professionals may be authorized to perform one or more of 14 controlled acts. Under the *Medical Radiation Technology Act, 1991* (MRT Act), members of CMRTO are authorized to perform five of the 14 controlled acts set out in the RHPA (the authorized acts).

All 14 controlled acts are set out in the table below. For reference, the five controlled acts that members of the CMRTO are authorized to perform appear in bold (see controlled acts 2, 5, 6, and 7).

Controlled Act	Description
1	Communicating to the an individual or their 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 their 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	<p>Putting an instrument, hand or finger,</p> <p>i. beyond the external ear canal,</p> <p>ii. beyond the point in the nasal passages where they normally narrow,</p> <p>iii. beyond the larynx,¹⁴</p> <p>iv. beyond the opening of the urethra,</p> <p>v. beyond the labia majora,</p> <p>vi. beyond the anal verge, or</p> <p>vii. into an artificial opening into the body.</p>
7	<p>Applying or ordering the application of a form of energy prescribed by the regulations under the RHPA.¹⁵</p>
8	<p>Prescribing, dispensing, selling or compounding a drug as defined in the <i>Drug and Pharmacies Regulation Act</i>, or supervising the part of a pharmacy where such drugs are kept.</p>
9	<p>Prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eye glasses other than simple magnifiers.</p>
10	<p>Prescribing a hearing aid for a hearing impaired person.</p>
11	<p>Fitting or dispensing dental prosthesis, orthodontic or periodontal appliance or a device used inside the mouth to protect teeth from abnormal functioning.</p>
12	<p>Managing labour or conducting the delivery of a baby</p>
13	<p>Allergy challenge testing of a kind in which a positive result of the test is a significant allergic response.</p>

Controlled acts may only be performed by health professionals in their practice if:

- the controlled act is authorized to them under the profession-specific legislation; or
- the controlled act is delegated to them by a health professional who is authorized to perform it; or
- an exception or exemption exists.

¹⁴Under the MRT Act, members of the CMRTO are authorized to perform a “tracheal suctioning of a tracheostomy.”

¹⁵The forms of energy prescribed by the regulations under the RHPA include electricity, soundwaves for diagnostic ultrasound and electromagnetism for magnetic resonance imaging.

What is delegation?

Under the RHPA, delegation is the process by which a regulated health professional authorized to perform a controlled act confers that authority to someone – regulated or unregulated – who is not authorized. Delegation may be conferred and established by order or by designation.

Members of CMRTO do not typically perform delegated acts, as most of the controlled acts they perform in their practice fall under the five authorized acts they have the authority to perform. However, on occasion, some members will accept delegation of a controlled act which is not one of the five authorized acts.

For example: communicating to an individual or their personal representative a diagnosis is not one of the controlled acts authorized to members of CMRTO. However, members in the specialty of nuclear medicine may need to communicate the results of a pregnancy test to their patient after performing a pregnancy test. This is because pregnancy may be a contraindication for certain nuclear medicine procedures, due to the high risk to the fetus.

How do I determine if it's appropriate to accept a delegation and perform a procedure?

Under the CMRTO Standards of Practice, members may accept the delegation of controlled acts under the RHPA that are not authorized under the MRT Act, provided that members comply with the RHPA and the CMRTO Standards of Practice. Members may perform controlled acts on the basis of delegation only when the following conditions have been met:

- the health professional who is delegating the controlled act (the delegator) is a member of a regulated health profession authorized by their health profession Act to perform the controlled act;
- the delegator is acting in accordance with any applicable legislation and any guidelines and policies of their regulatory body governing delegation, and has not been restricted or prohibited from delegating the controlled act;
- the delegator has the knowledge, skills and judgement to perform and delegate the controlled act;
- the member has the knowledge, skills and judgement to perform the controlled act delegated to them safely, effectively and ethically given the circumstances of the situation;

- a written record of the transfer of authority (delegation) and certification of the CMRTO member's competence is maintained; and
- the member complies with any conditions established by the delegator in order for the member to maintain the authority of the controlled act.

It is important for members to understand, however, that under the CMRTO Standards of Practice, CMRTO members **cannot** delegate their authorized acts to other individuals.

Fetal ultrasound for non-medical reasons

Physicians and other authorized health professionals routinely order diagnostic ultrasounds of the fetus during their patient's pregnancy. While diagnostic ultrasound is an essential component of prenatal care, ultrasound technology is used by others for non-medical reasons, such as for fetal portraits, keepsake videos, heartbeat recordings or gender identification.

CMRTO members must only perform procedures, including the authorized acts, in the course of engaging in the practice of the profession (the scope of practice for DMSs is the use of soundwaves for the purposes of diagnostic or therapeutic procedures, the evaluation of images or data relating to the procedure, and the assessment of an individual before, during and after the procedure). The Controlled Acts regulation made under the RHPA requires members to only apply soundwaves for diagnostic ultrasound procedures when they have an order from a physician or other authorized health professional. Therefore, it would be professional misconduct for a CMRTO member to use ultrasound only to obtain a picture or video of a fetus or to determine gender for non-medical reasons.

Students and applicants

There are exemptions in place under the RHPA and the HARP Act that permit students to perform authorized acts and apply ionizing radiation while they are students actively enrolled in an approved educational program, provided they are supervised by a member of CMRTO.

In order to practise as a medical radiation technologist in Ontario, an individual must be registered with the CMRTO. Effective January 1, 2019, an individual must be registered with CMRTO in order to practise as a diagnostic medical sonographer.¹⁶

Prior to receiving a certificate of registration, all applicants are required to successfully complete an approved program, successfully complete an approved examination and meet other requirements as defined by the registration regulation.

In between completing an educational program and becoming registered with CMRTO, an individual is **not**:

- authorized to apply ionizing radiation to human beings in Ontario, or
- authorized to perform any of the controlled acts authorized to CMRTO members, including:
 - the application of electromagnetism for magnetic resonance imaging procedures, and
 - the application of soundwaves for diagnostic medical sonography.

The same is true even if the individual is doing so under the supervision of a member of the CMRTO.

Remember ... CMRTO staff are available by phone or email to assist members in understanding their professional obligations and their accountabilities. If you have any further questions regarding performing procedures or practise advice as a medical radiation or imaging technologist, please contact the CMRTO Practice Advisor.

¹⁶This includes all areas of practice of diagnostic medical sonography: general, cardiac and vascular.

**Appendix A:
Ordering and
applying ionizing
radiation**

The *Healing Arts Radiation Protection Act* (HARP Act) provides that no person shall operate an x-ray machine for the irradiation of a human being unless the irradiation has been prescribed as follows:

Health care professional	Ordering authority	Authority to apply
A legally qualified medical practitioner	A legally qualified medical practitioner, or member of the College of Physicians and Surgeons of Ontario, can order the application of ionizing radiation without restriction, provided that they do so in accordance with the expectations set out in the practice standards of CPSO.	Yes
Member of the Royal College of Dental Surgeons of Ontario	When ordering the application of ionizing radiation for dental radiographs and dental CTs, a dentist is accountable to the expectations set out in the practice standards of their College.	Yes
Member of the College of Chiropractors of Ontario	Member must have been continuously registered as a chiropractor under the <i>Chiroprody Act</i> and the <i>Chiroprody Act, 1991</i> since before November 1, 1980 or who is a graduate of a four-year course of instruction in chiroprody (a Doctor of Podiatric Medicine (DPM) degree).	Yes
Member of the College of Chiropractors of Ontario	When ordering the application of ionizing radiation, a member must adhere to the Standards of Practice of the College of Chiropractors of Ontario.	Yes
Member of the College of Nurses of Ontario	<p>To order the application of ionizing radiation, a member must hold an extended certificate of registration under the <i>Nursing Act, 1991</i> (Nurse Practitioner or NP). Previously, NPs could only order x-rays based on lists under the RHPA and the HARP Act. Changes in 2018 eliminated these lists. Now, NPs can order all x-rays (except CTs).</p> <p>When ordering the application of ionizing radiation, NPs are accountable to the expectations set out in the practice standards of their College.</p>	No

Member of the College of Physiotherapists of Ontario	To order the application of ionizing radiation, the irradiation must be prescribed in a manner permitted by the regulations. As of the date of publication, no regulation has been made.	No
Member of the College of Dental Hygienists of Ontario	Members have no ordering authority under HARP.	Yes
Member of the College of Medical Radiation Technologists of Ontario	Members have no ordering authority under HARP. Members do not need an order with respect to the application of ionizing radiation for mammography procedures under the Ontario Breast Screening Program in accordance with s. 6 of R.R.O. 1990, Reg. 543 made under the HARP Act.	Yes

For more information regarding ordering and applying ionizing radiation, please contact CMRTO or the College of the relevant health care professional listed in the HARP Act.

**Appendix B:
Ordering
and applying
electromagnetism
for magnetic
resonance
imaging**

The Controlled Acts Regulation made under the *Regulated Health Professions Act, 1991* sets out those who can apply and order the application of electromagnetism for magnetic resonance imaging.

Health care professional	Ordering authority	Authority to apply electromagnetism
Member of the College of Physicians and Surgeons of Ontario	A member of the CPSO can order the application of electromagnetism provided that the conditions set out in the Regulation are met. ¹	Yes, provided that the conditions set out in the Regulation are met. ²
Member of the College of Medical Radiation Technologists of Ontario	A member of the CMRTO cannot order the application of electromagnetism for magnetic resonance imaging.	Yes, but only with an order from a member of the CPSO and only if the conditions set out in the Regulation are met. ³

For more information regarding ordering and applying electromagnetism for magnetic resonance imaging, please consult O. Reg. 107/96 or contact the CMRTO.

¹Section 5(2) of O. Reg. 107/96 provides that a member of the CPSO is exempt from subsection 27(1) of the Act for the purpose of applying or ordering the application of electromagnetism if:

- (a) the electromagnetism is applied for magnetic resonance imaging using equipment that is,
 - (i) installed in a site of a public hospital where the public hospital is approved as a public hospital under the *Public Hospitals Act* and the site of the public hospital is graded under that Act as a Group N site of a hospital, and
 - (ii) operated by the public hospital mentioned in subclause (i);
- (a.1) the electromagnetism is applied for magnetic resonance imaging using equipment that is installed in, and operated by, the University of Ottawa Heart Institute;
- (b) the electromagnetism is applied for magnetic resonance imaging and all of the following conditions are met:
 - (i) the electromagnetism is used to support, assist and be a necessary adjunct, or any of them, to an insured service within the meaning of the *Health Insurance Act*;
 - (ii) the magnetic resonance imaging is provided to persons who are insured persons within the meaning of the *Health Insurance Act*,
 - (iii) the electromagnetism is applied in an independent health facility licensed under the *Independent Health Facilities Act* in respect of magnetic resonance imaging; or
- (c) the electromagnetism is applied for magnetic resonance imaging and all of the following conditions are met:
 - (i) the electromagnetism is not used to support, assist and be a necessary adjunct, or any of them, to an insured service within the meaning of the *Health Insurance Act*, or the magnetic resonance imaging is not provided to persons who are insured persons within the meaning of the Act, or both,
 - (ii) the electromagnetism is applied in a facility that is operated by an operator that holds a licence under the *Independent Health Facilities Act* in respect of magnetic resonance imaging,
 - (iii) the electromagnetism is applied in a facility that is operated on the same premises as the independent health facility licensed under the *Independent Health Facilities Act* in respect of magnetic resonance imaging that is operated by the operator mentioned in subclause (ii),
 - (iv) the electromagnetism is applied using the same equipment that is used to provide magnetic resonance imaging in the independent health facility licensed under the *Independent Health Facilities Act* in respect of magnetic resonance imaging that is operated by the operator mentioned in subclause (ii),
 - (v) the operator of the facility in which the electromagnetism is applied is a party to a valid and subsisting agreement with the Minister concerning the provision of magnetic resonance imaging.

²Please see footnote 1 above.

³Section 3.1 of O. Reg. 107/96 provides that a member of the CMRTO is exempt from subsection 27(1) of the Act for the purpose of applying electromagnetism if the application is ordered by a member of the CPSO and:

- (a) the electromagnetism is applied for magnetic resonance imaging using equipment that is,
 - (i) installed in a site of a public hospital where the public hospital is approved as a public hospital under the *Public Hospitals Act* and the site of the public hospital is graded under that Act as a Group N site of a hospital, and
 - (ii) operated by the public hospital mentioned in subclause (i);
- (a.1) the electromagnetism is applied for magnetic resonance imaging using equipment that is installed in, and operated by, the University of Ottawa Heart Institute;
- (b) the electromagnetism is applied for magnetic resonance imaging and all of the following conditions are met:
 - (i) the electromagnetism is used to support, assist and be a necessary adjunct, or any of them, to an insured service within the meaning of the *Health Insurance Act*;
 - (ii) the magnetic resonance imaging is provided to persons who are insured persons within the meaning of the *Health Insurance Act*,
 - (iii) the electromagnetism is applied in an independent health facility licensed under the *Independent Health Facilities Act* in respect of magnetic resonance imaging; or
- (c) the electromagnetism is applied for magnetic resonance imaging and all of the following conditions are met:
 - (i) the electromagnetism is not used to support, assist and be a necessary adjunct, or any of them, to an insured service within the meaning of the *Health Insurance Act*, or the magnetic resonance imaging is not provided to persons who are insured persons within the meaning of that Act, or both,
 - (ii) the electromagnetism is applied in a facility that is operated by an operator that holds a licence under the *Independent Health Facilities Act* in respect of magnetic resonance imaging,
 - (iii) the electromagnetism is applied in a facility that is operated on the same premises as the independent health facility licensed under the *Independent Health Facilities Act* in respect of magnetic resonance imaging that is operated by the operator mentioned in subclause (ii),
 - (iv) the electromagnetism is applied using the same equipment that is used to provide magnetic resonance imaging in the independent health facility licensed under the *Independent Health Facilities Act* in respect of magnetic resonance imaging that is operated by the operator mentioned in subclause (ii),
 - (v) the operator of the facility in which the electromagnetism is applied is a party to a valid and subsisting agreement with the Minister concerning the provision of magnetic resonance imaging.

**Appendix C:
Ordering
and applying
soundwaves
for diagnostic
ultrasound**

The Controlled Acts Regulation made under the *Regulated Health Professions Act, 1991* sets out those who can apply and order the application of soundwaves for diagnostic ultrasound.

For the purposes of the Regulation, “diagnostic ultrasound” means ultrasound that produces an image or other data.

This chart sets out which health professionals have the authority to order and/or apply soundwaves for diagnostic ultrasound, effective January 1, 2019.

Health care professional	Ordering authority	Authority to apply soundwaves
Member of the College of Physicians and Surgeons of Ontario	A member of the CPSO can order the application of soundwaves for diagnostic ultrasound.	Yes
Member of the College of Midwives of Ontario	A member of the CMO can order the application of soundwaves for pregnancy diagnostic ultrasound or pelvic diagnostic ultrasound.	Yes, but only pregnancy or pelvic diagnostic ultrasound.
Member of the College of Nurses of Ontario (Registered Nurse in the Extended Class)	A member of the CNO who is a registered nurse in the extended class can order the application of soundwaves for diagnostic ultrasound.	Yes

<p>Member of the College of Nurses of Ontario (other than a member who is a Registered Nurse in the Extended Class)</p>	<p>A member of the CNO who is not a registered nurse in the extended class cannot order the application of soundwaves for diagnostic ultrasound.</p>	<p>Yes, but only if the member has a therapeutic nurse-patient relationship with the person to whom the soundwaves are being applied and the soundwaves are being applied for conducting one or more routine nursing assessments of a patient to assist in the development/ implementation of the patient's plan of care and only if the conditions set out in the Regulation are met.¹</p>
<p>Member of the College of Medical Radiation Technologists of Ontario</p>	<p>A member of the CMRTO cannot order the application of soundwaves for diagnostic ultrasound.</p>	<p>Yes, but only with an order from a health care professional with ordering authority and only if the conditions set out in the Regulation are met.²</p>

For more information regarding ordering and applying soundwaves for diagnostic ultrasound, please consult O. Reg. 107/96 or contact the CMRTO.

¹Section 4.1(1) of O. Reg. 107/96 provides that a member of the CNO, other than a member described in subsection (2), is exempt from subsection 27 (1) of the Act for the purpose of applying soundwaves for diagnostic ultrasound, as long as the member has a therapeutic nurse-patient relationship with the person to whom the soundwaves are being applied and the soundwaves are being applied for the purpose of conducting one or more routine nursing assessments of a patient to assist in the development or implementation of the patient's plan of care. Subsection (2) provides that a member of the CNO who is a registered nurse in the extended class is exempt from subsection 27 (1) of the Act for the purpose of applying, or ordering the application of, soundwaves for diagnostic ultrasound.

The conditions set out in section 7.1(1) of O. Reg. 107/96 also apply in this context. Section 7.1(1) provides that a person is exempt from subsection 27(1) of the Act for the purpose of applying soundwaves for diagnostic ultrasound if the application is ordered by a member with ordering authority, and the soundwaves for diagnostic ultrasound are applied:

- (a) in a site of a public hospital where the public hospital is approved as a public hospital under the *Public Hospitals Act*, and the equipment is operated by the public hospital;
- (b) in a private hospital operated under the authority of a licence issued under the *Private Hospitals Act* and the equipment is operated by the private hospital;
- (b.1) in the University of Ottawa Heart Institute, and the equipment is operated by the University of Ottawa Heart Institute;
- (c) in an independent health facility licensed under the *Independent Health Facilities Act* in respect of diagnostic ultrasound on a site for which that independent health facility is licensed in respect of diagnostic ultrasound; or
- (d) in a fixed site where health services are customarily performed, and the application is ordered by a member with ordering authority who treats his or her own patients in the course of his or her health care practice, but only if,
 - (i) there exists an ongoing professional health care relationship between the patient and the member with ordering authority, or between the patient and a regulated health professional who ordinarily practises with that member at one or more sites in Ontario,
 - (ii) there exists an ongoing professional health care relationship between the patient and a regulated health professional who has given an opinion on the health of the patient, or between the patient and a regulated health professional who ordinarily practises at one or more sites in Ontario with the regulated health professional who has given the opinion, and the patient has requested that the member with ordering authority confirm, refute or vary that opinion and,
 - (A) the member orders the application of soundwaves for diagnostic ultrasound in the course of an assessment of the patient resulting from that request, and
 - (B) the diagnostic ultrasound is directly related to that assessment, or
 - (iii) there exists an ongoing professional health care relationship between the patient and a regulated health professional who has referred the patient to the member with ordering authority for the purpose of a consultation, or between the patient and a regulated health professional who ordinarily practises at one or more sites in Ontario with the regulated health professional who has made the referral and,
 - (A) the member conducts an assessment of the patient, and
 - (B) the diagnostic ultrasound is directly related to that assessment or services arising out of that assessment.

²The conditions set out in section 7.1(1) of O. Reg. 107/96 also apply to members of the CMRTO. Please see footnote 1 above for further information. In this section, "member with ordering authority" means:

- (a) a member of the College of Midwives of Ontario, with respect to ordering the application of soundwaves for pregnancy diagnostic ultrasound or pelvic diagnostic ultrasound,
- (b) a member of the College of Nurses of Ontario who is a registered nurse in the extended class, with respect to ordering the application of soundwaves for diagnostic ultrasound, or
- (c) a member of the College of Physicians and Surgeons of Ontario, with respect to ordering the application of soundwaves for diagnostic ultrasound.

Decision-making guide for performing a procedure

1

Do I have the legal authority to perform the procedure?

Issues to consider:

- Does the procedure fall under the scope of practice of the profession as defined by the MRT Act?
- Does the procedure contain a Controlled Act, and if so, is the Controlled Act an Authorized Act under the MRT Act?
- Does the procedure contain a Controlled Act that is not authorized to me under the MRT Act, and if so, is there a delegation in place giving me the authority to perform the procedure?



2

Do I have the necessary knowledge, skills and judgement to perform the procedure safely, effectively and ethically?

Issues to consider:

- Do I have the necessary education and experience in this area of practice?
- Are all the provisions in place for me to perform the procedure safely under the RHPA, MRT Act, HARP Act, *Public Hospitals Act*, *Independent Health Facilities Act*, *Nuclear Safety and Control Act*, and any other applicable legislation?
- Are all the provisions in place for me to be responsible and accountable for performing the procedure and for managing the outcomes, having considered the known risks to the patient in performing the procedure, the predictability of the outcomes in performing the procedure, whether the management of the possible outcomes are within my knowledge, skill and judgement, and any other factors specific to the situation?

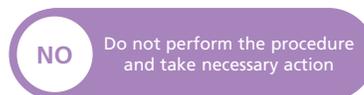


3

Is an appropriate order in place giving me the authority to perform the procedure?

Issues to consider:

- Do I have an order from an authorized health professional, either directly or through a medical directive, to perform each component of the procedure including the application of ionizing radiation, or electromagnetism for MRI, or soundwaves for diagnostic ultrasound, or any authorized act or delegated controlled act?



4

Have all the conditions set out in the CMRTO Standards of Practice been met?

Issues to consider:

- Has the patient provided informed consent for the procedure?
- Am I able to provide the patient with clear and understandable information and instruction regarding the procedure, and respond to their questions?
- Are all the provisions in place for me to be responsible and accountable for performing the procedure in accordance with the conditions set out in the *Personal Health Information Protection Act*, and the *Health Care Consent Act*?
- Are all the provisions in place for me to be responsible and accountable for performing the procedure in accordance with the conditions set out in the CMRTO Standards of Practice, Code of Ethics and sexual abuse prevention program?



PERFORM THE PROCEDURE