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# Medical Radiation Technology

## Five Things Medical Radiation Technologists and Patients Should Question

by  
Canadian Association of Medical Radiation Technologists  
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### **1 Don't image a patient without a relevant clinical history and a complete requisition in order to prevent unnecessary or redundant studies.**

An accurate and comprehensive clinical history ensures patient safety and reduces unnecessary repeat examinations. Medical Radiation Technologists (MRTs) are encouraged to engage patients in conversation to fill in any gaps in the clinical information available. MRTs should speak with other members of the healthcare team to address any discrepancies with an imaging request.

### **2 Don't perform medical imaging/radiation therapy procedures before assessing patient preparedness in order to prevent repeat procedures.**

Proper patient preparation reduces the need for repeat procedures and is an important quality and safety consideration for both medical imaging and radiation therapy. A multidisciplinary approach to pre-procedural care emphasizes the importance of advanced planning to achieve the desired outcomes for the procedure and ensures that the procedures do not need to be cancelled or repeated. This includes necessary laboratory results, adherence to dietary requirements and administration of pre-procedure medications. It is the Medical Radiation Technologist's (MRT) responsibility to ensure patients have completed all necessary pre-procedural instructions.

### **3 Don't perform medical imaging or radiation procedures prior to assessing the patient's ability to tolerate the procedure in order to prevent repeat or poor quality studies.**

Many patients have difficulty tolerating medical imaging and radiation therapy procedures that often cause repeat examinations and/or poor-quality outcomes. Medical Radiation Technologists (MRTs) must communicate with patients, their families and other healthcare providers to ensure patients are physically, mentally and emotionally able to perform the procedure requested.

### **4 Don't perform medical imaging or radiation therapy without using appropriate and/or available radiation dose reduction strategies and technologies.**

Stopping patients from receiving unnecessary radiation dose is a primary consideration for Medical Radiation Technologists (MRTs). MRTs should use all available hardware, software, accessory devices, and patient instructions (pre and post procedure) to minimize dose to patients during medical imaging and radiation therapy planning and treatment alignment. All imaging should be performed using the As Low as Reasonably Achievable (ALARA) principle to optimize the appropriate dose for each clinical situation.

### **5 Don't start peripheral venous lines when an appropriate central access is available.**

All available central venous access lines should be assessed for compatibility with contrast injections before a new peripheral venous line is started. This prevents starting unnecessary lines which are uncomfortable for patients.

## How the list was created

The Canadian Association of Medical Radiation Technologists (CAMRT) established its Choosing Wisely Top 5 recommendations by creating a subject matter expert Choosing Wisely Core Committee representing all four Medical Radiation Technology (MRT) disciplines: radiological technology, nuclear medicine, magnetic resonance and radiation therapy. This committee created and sent outlines for 10 recommendations to key professional stakeholders including the CAMRT Board of Directors, the MRT Alliance of Regulators and Provincial MRT Associations. This consultation used a Delphi survey to establish the top 5 recommendations. Individual recommendation committees were then created for each to perform an extensive literature review and participate in a rigorous critical appraisal process. All recommendations were then reviewed by the Core Committee for consistency in language, by the Choosing Wisely Physician Committee, and finally by Choosing Wisely stakeholders.

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### About the Canadian Association of Medical Radiation Technologists

The Canadian Association of Medical Radiation Technologists (CAMRT) is a proud partner of the Choosing Wisely Canada campaign. The CAMRT is the national professional association and certifying body for radiological, nuclear medicine and magnetic resonance imaging technologists and radiation therapists. As the authoritative national voice for medical radiation technology, the CAMRT works on behalf of its more than 12,000 members to address critical issues affecting all areas of their practice.



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### About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

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