



APPROPRIATE MEDICAL IMAGING

The Role of Family Physicians

Family physicians make numerous decisions on a daily basis that affect the lives of Canadians and the use of health services. Making appropriate decisions on medical imaging referrals for patients is of paramount importance. Recent evidence shows that approximately 10 to 20 percent of medical imaging studies are unnecessary or clinically ineffective.

To help better manage our healthcare resources and to positively impact quality of care, family physicians should be aware of potential inappropriate medical imaging and its effects.

This fact sheet will help family physicians in making appropriate decision for their patients' medical imaging needs.

What is Appropriate Medical Imaging?

Appropriate utilization of medical imaging consists of the physician requesting the right test, at the right time and for the right reason to suit their patient's healthcare needs. Any request for medical imaging procedures should be based on the patient's symptoms and potentially alter the patient's management or outcomes.

- Providing a detailed clinical history related to the patient's condition, disease or symptoms being investigated;
- Speaking with the appropriate member of the medical imaging team if there are specific questions related to the patient's medical imaging needs.

Roles of the Referring Physician in Ensuring Appropriate Medical Imaging

There are a number of steps that family physicians can take to ensure their patients receive the most appropriate medical imaging examination the first time, and every time. Key considerations include:

- Ensuring the medical imaging requested will change the patient's management or outcomes;
- Utilizing available clinical guidelines and evidence-based materials to help in choosing the best examination;

Discussing Medical Imaging Procedures With Patients

It is the responsibility of the requesting physician to discuss the medical imaging procedures they have requested with the patient. Key topics of discussion include;

- Identifying the patient's queries and answering questions related to the requested medical imaging;
- The risk(s)/benefit(s) of the proposed medical imaging;
- Alternatives to the proposed medical imaging;



- How the results of the medical imaging will be communicated;
- Where to get credible, easy to understand information about medical imaging.

Medical Imaging: the Inside Story is a patient brochure, co-authored by members of the imaging team, that answers the most frequently asked questions patients have about imaging procedures. The brochure is downloadable from the web-based patient information centre at imagingteam.ca and also available in printed format.

What is the “Medical Imaging Team”?

The medical imaging team is a group of healthcare professionals who collaborate to improve the health and wellbeing of Canadians, ensuring that the appropriate medical imaging tests are performed and expertly interpreted, with the highest standards of patient safety, comfort and care. The team includes physicians (radiologists, nuclear medicine specialists), physicists, sonographers and technologists. For more information, visit imagingteam.ca.

What Does the Medical Imaging Team do with the Imaging Requests?

Every request for medical imaging that a clinic or hospital receives is generally subject to a three-stage process that is completed by one or several members of the medical imaging team before an appointment is booked or the examination is performed: the **review stage**, the **protocol stage** and the **prioritization stage**. This process helps to ensure that the medical imaging examination requested is the best option available for the particular patient. The potential benefits of the examination should outweigh the potential risks for any medical imaging to be performed.

Review Stage

Appropriate medical imaging is not a *one-size-fits-all* concept. At the review stage, one or several members of the medical imaging team assess each request to ensure that the medical imaging requested is suitably aligned with the patient’s clinical history. Sometimes this requires a discussion with the referring physician.

Protocol Stage

After the review phase has been completed, the team then proceeds with the protocol stage. It is at this point that a plan is laid out for each medical imaging request. The request then becomes the prescription that indicates how the medical imaging procedure will be performed. This ensures the procedure is best optimized to answer the ordering healthcare provider’s question(s).

Prioritization Stage

To complete the process, each prescription for medical imaging is then prioritized. The referring physician can contribute significantly to the standard of appropriateness of prioritization by providing the most complete and accurate clinical information on the patient.

Most medical imaging facilities will use a grading or triage system to indicate the time sensitivity of the medical imaging that is prescribed. This prioritization ensures that patients requiring the most urgent medical imaging services receive priority appointments.

For more detailed information on each step, please see the paper entitled “Appropriate Use of Medical Imaging in Canada” at imagingteam.ca.