June 18, 2009

The Canadian Association of Medical Radiation Technologists' Brief to the House of Commons Standing Committee on Natural Resources concerning the supply of medical isotopes

(See Appendix A for additional information about CAMRT.)

CAMRT welcomes the opportunity to address with the Committee our members' concern with respect to the impact of the current shortage of medical isotopes resulting from the Chalk River shutdown.

First and foremost of our membership's concerns is the impact on patient care, with respect to both diagnostic imaging and therapeutic treatments. The effect of the reduction in the supply of molybdenum-99 (Moly-99) on scanning procedures has been widely publicized but it should be noted as well that the supply of radioactive iodine I-131, an isotope used in treatment of thyroid cancer and other thyroid disease, is also under pressure. The requirement to realistically address pan-Canadian solutions to this global shortage, now and into the future is urgent. You have also heard this message from our colleagues from the Canadian Association of Radiologists and the Canadian Association of Nuclear Medicine at your committee meeting on June 9, where they presented recommendations for national standards of care, coordinated consultation and strategic management over the short, mid and long term. However, an additional concern that we, as the national voice for medical radiation technologists in Canada, would also like to raise is the significant impact on health human resources that an extended shortage of medical isotopes will have. The CAMRT proposes several initiatives to address the above noted challenges brought about by the reduced supply of medical isotopes:

1) Research on the impact of the current isotope shortage including a survey of managers of Medical Imaging departments to determine:
   - the number of patients who have been diverted to other procedures and of those who had an alternative isotope used for their nuclear medicine procedure
   - what measures have been put in place to maximize use of available supplies and how these are being shared where practicable
2) A study to estimate the human resource requirements in the near and longer terms, in the likelihood of ongoing reduced activity for technologists in the nuclear medicine field.
3) Using the results of the above study to develop education programs to quickly provide nuclear medicine technologists with the knowledge, skills and judgment needed to transfer their expertise to CT and/or MR specialization. CAMRT is well positioned to lead this initiative, having recently completed a CT Operator's Gap

analysis which identifies the competencies that nuclear medicine technologists would need to acquire to perform full diagnostic CT procedures.

CAMRT is prepared to work collaboratively with government, healthcare partners and industry to monitor, assess and manage through an extended period of limited supply to optimize Canadians' access to nuclear medicine services and appropriate alternative procedures, and toward sustainable solutions for the future. In particular, CAMRT is prepared to immediately collaborate with the Canadian Association of Radiologists (CAR) to monitor and assess the impact of transferring nuclear medicine patients to other imaging modalities.

Currently, our members are demonstrating great creativity and coping admirably with managing during the current uncertainty of supply. In many cases, this involves scheduling extended shifts to maximize the use of existing isotope supplies, as well as to accommodate the redirection of patients from nuclear medicine to other imaging modalities, particularly MRI and CT.

However, a factor that we ask the committee to consider is the significant impact on health human resources that an extended shortage of medical isotopes will have. Clearly, nuclear medicine procedures cannot be conducted without the expertise of certified technologists. Educational institutions have advised us that some students previously registered in nuclear medicine programs have withdrawn from the September term due to the uncertainty of their futures in this profession. Currently practicing nuclear medicine technologists have expressed concern over their employment security. They face the very real possibility that the potential for long term reduction in the supply of isotopes and /or sharply increased prices for what is available could result in loss of employment for these highly qualified specialists. Another concern is the expectation that short supplies of medical isotopes will result in greater utilization of CT and MR scanning procedures, both of which currently have well documented waitlists. The number of qualified technologists in this discipline is insufficient to meet increased demand. An obvious solution would be to educate and deploy the nuclear medicine technologists who have become unexpectedly redundant into CT and MR departments to meet new requirements for these procedures.
We will be seeking government support for the necessary research and educational projects outlined above to expedite our ability to complete them.

The CAMRT congratulates Health Canada on recent actions it has undertaken to address both immediate and long term challenges and its efforts to ensure regular and transparent communication on developments as they occur. Canada has a long and proud history of international leadership in nuclear medicine, as supplier of 30-40% of the world's isotopes and we encourage the government to ensure that future policies ensure that a predictable and equitable share of the world supply is available to Canadians, whether this country remains in the isotope business or not.
The news of the establishment of the *Expert Review Panel for Long-Term Isotope Supply Solutions* is very welcome, and we recommend that the panel consider consultation with our members as they carry out the study. CAMRT has established its own expert panel of nuclear medicine technologists who are prepared to provide the perspective of their 'front line' experience and expertise to the Panel as necessary.

The CAMRT stands ready to work collaboratively with global, national, and provincial/territorial stakeholders toward short and long term solutions that ensure

affordable and predictable supplies of medical isotopes and appropriate alternatives, for all Canadians who need them.

Respectfully submitted,

Fiona Mitchell, RTT, ACT, CMS, FCAMRT
President,
Canadian Association of Medical Radiation Technologists

Cc: The Honourable Lisa Raitt, Minister of Natural Resources
The Honourable Leona Aglukkaq, Minister of Health
House of Commons Standing Committee on Health

Appendix A

More information about CAMRT

About CAMRT members

Medical Radiation Technologists
A medical radiation technologist (MRT) is the qualified professional who uses radiation or electromagnetism to produce diagnostic images of a patient's body or who administers radiation to treat patients for certain medical conditions, on the order of a physician.

During two to five years of intensive education, MRTs are trained to use sophisticated and complex imaging and radiation therapy equipment. MRTs use this equipment on the order of a physician to produce images of different parts of the body which are then interpreted by a physician. MRTs also apply radiation to parts of the body for radiation therapy, again on the order of a physician.

MRTs work within one of four specialties in medical radiation technology:

- Radiography is the use of x-rays to produce images of parts of the body on film or on computer screens. For example, mammograms, chest x-rays, barium enemas and CT scans. Radiological (or x-ray) technologists make up about 80% of the 10,000 members represented by the Canadian Association of Medical Radiation Technologists (CAMRT).
- Radiation Therapy is the treatment of disease with radiation which involves the use of radiation to destroy diseased cells in the body; for example, cancer.
- Nuclear Medicine is the use of low-level radioactive substances which are injected, swallowed or inhaled to produce diagnostic images of how the body functions. For example, bone scans, cardiac stress testing, and lung scans.
- Magnetic resonance is the use of electromagnetism (static magnetic fields and radio frequencies) to produce diagnostic images. Magnetic resonance imaging procedures play a significant role in imaging the brain, spine, abdomen, pelvis and the musculoskeletal system.

CAMRT Membership by Discipline	As at December 31, 2008			
Radiological Technology (RTR)	Radiation Therapy (RTT)	Nuclear Medicine (RTNM)	Magnetic Resonance (RTMR)	Total
8,288	1,364	1,237	828	11,717

Please note that if a technologist is certified in more than one discipline they are counted in each discipline.

The contribution of Medical Radiation Technologists to health care in Canada.

"Medical radiation technologists (MRTs) are critical members of interprofessional health care teams. They are valuable technical experts in the safe and effective use of rapidly evolving and highly sophisticated diagnostic and therapeutic equipment. MRTs provide crucial information to support diagnosis and monitor the progress of treatments. They are also involved in direct patient care through the delivery of therapeutic interventions."[1]

The CAMRT mission statement is:

Certification – Standards – Education – Progress
Supporting Professionals at the Leading Edge of Medical Radiation Technology

How the mission is fulfilled:

Certification

As a certifying body, the CAMRT

- develops and maintains competency profiles in all disciplines for entry-to-practice technologists that are reflective of practice
- develops and maintains national certification examinations for all disciplines
- assesses internationally educated candidates for access to CAMRT certification exams

The CAMRT is the sole provider, with the exception of Quebec, of the certification exam for entry-to-practice in Canada. The Ordre des technologues en radiologie du Québec (OTRQ) is the professional association and certifying body in the province of Quebec. The CAMRT and the OTRQ have reciprocity therefore allowing successful candidates of the entry-to-practice examinations from both organizations to have mobility across Canada.

[1] Critical Links: Transforming and Supporting Patient Care. A Report to the Ontario Minister of Health and Long-Term Care on Mechanisms to Facilitate and Support Interprofessional Collaboration and a New Framework for the Prescribing and Use of Drugs by Non-Physician Regulated Health Professions Ontario Health Professionals Regulatory Advisory Council. January 2009.

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In order to access the CAMRT certification exam, candidates must be graduates from a Canadian program accredited by the Canadian Medical Association (CMA) Conjoint Accreditation Services or from an international program that has been deemed as being substantially similar.

In the case of an internationally educated candidate applying to write a CAMRT certification exam, the candidate's credentials and the educational program attended must be accessed and deemed substantially similar by the CAMRT or provincial regulatory body.

Standards

The CAMRT *Standards of Practice* act as a guide to MRTs in the exemplary practice of their profession and serve as the basis for the development of the CAMRT certification requirements. The Standards are applicable within existing national and provincial regulation.

The CAMRT Standards of Practice:

- provide a common base for MRTs to use to coordinate their practice and solidify their efforts in the development of quality care;
- assist the health care community and the public in understanding what to expect from the MRT;
- provide flexibility and latitude in practicing the profession in order to minimize medico-legal risks;
- provide an effective framework and environment for appropriate patient care;
- encompass the wide range of different clinical settings and situations in which a MRT may be asked to function.

Education

The CAMRT delivers a rich menu of continuing professional development courses, specialty certificate programs, and an annual conference program that meet the diverse needs of the multiple disciplines within the CAMRT membership. The Association is also the publisher of the *Journal of Medical Imaging and Radiation Sciences (JMIRS).* JMIRS publishes articles on recent research, new technology and techniques, professional practices, as well as relevant book reviews, disseminating knowledge that helps medical radiation technologists advance quality and innovation in patient care.

Progress

The CAMRT monitors trends and emerging issues in the profession of medical radiation technology, advocates on the part of the Medical Radiation Technology profession, and collaborates with other health care organizations on matters of mutual concern. CAMRT, in partnership with its provincial member associations, sponsors MRT Week, held in November every year, to coincide with the discovery of x-rays on November 8th, 1895.