

The formation of the Nova Scotia College of Medical Imaging and Radiation Therapy Professionals will ensure that Nova Scotians will receive the best quality health care possible. Under the current Medical Radiation Technologists Act, only three distinct disciplines are regulated: nuclear medicine technology, radiation therapy, and radiological technology, which is commonly referred to as X-ray.

Nuclear medicine technology uses radiopharmaceuticals in combination with gamma cameras and PET/CT scanners, to produce high quality images that identify disease and how it affects the body. The principle uses include: the evaluation of coronary artery disease, assessment of skeletal disorders and function of such organs as the brain, lungs and kidneys. It has a large role in tumor location, and monitoring the effectiveness of treatment in cancer patients.

Radiation therapy is the application and use of radiation for the planning of and treatment for most notably, cancer patients. The aim is to destroy tumors while minimizing harm to healthy tissues. While treatment is usually delivered externally, treatment may involve placing radioactive sources directly into the patient's body.

Radiological technology is the application of X-rays to perform a broad variety of procedures to produce high quality diagnostic images and covers a number of specialties such as: plain film X-ray, mammography, fluoroscopy, CT scans, and angiography, which examine the heart, blood vessels and blood flow.

Our proposed Act will see the addition of two other disciplines. The first discipline is magnetic resonance technology, which is the use of magnetic fields to produce high quality diagnostic images. This diagnostic imaging tool was first introduced in the 1980's. Magnetic resonance imaging, or MRI, studies the cardiovascular system, detects tumors, especially in the brain and spinal column, studies body chemistry and functions, and images soft tissues such as muscles, tendons or arteries. There are safety requirements that must be considered for MRI. For example, patients must remove metal objects that could be drawn into the magnet, and patients with pacemakers or other metallic implants cannot undergo MRI scans because of the potential damage to such devices. Claustrophobia is another factor for patients undergoing MRI.

The second new discipline is diagnostic medical sonography, commonly referred to as ultrasound. It is the application of high frequency sound waves to perform procedures and produce high quality diagnostic images. Although sonography is a young profession, it is rapidly expanding into many areas of health care. While most may be familiar with obstetric ultrasound, the fact is that diagnostic medical sonography is widely used to examine all parts of the body in people of all ages including preterm infants and geriatric patients. Ultrasound is often the first tool used to determine the status of health in an individual.

All of the professionals in these disciplines provide patient care and education to patients before, during and after the performance of medical imaging procedures and the delivery of radiation therapy treatment. The new Act updates the registration process to make it consistent with the Fair Registration Practices Act. It updates the disciplinary procedures by aligning them with other regulated health

professions, and most importantly it ensures that the public interest is at the forefront of the College's regulatory work.

Acquiring the best images to depict normal or abnormal structure or positioning patients for radiation therapy treatment is very detailed and requires large knowledge bases and skill sets. Self regulation of all 5 disciplines ensures that everyone who must undergo a medical imaging procedure or radiation therapy can be assured that the professional performing it is qualified to do so in a competent manner.

In conclusion, the formation of a college will regulate over 700 professionals from 5 distinct disciplines under one statute. This makes sense for Nova Scotians as these professionals work as a team in diagnostic imaging and radiation therapy departments across the province. Mandatory continuing education will ensure that professionals maintain currency of practice in their discipline. The new College looks forward to developing standards of practice, criteria for advanced practice, a code of ethics and continuing education as new technologies emerge.