Fast Facts: Career of the Month (June, 2014)

Medical Radiation Technologists (NOC 3215)

Statistics from workbc.ca and CareerCruising.com

Overview
This occupational group includes technologists who operate radiographic and radiation therapy equipment to give radiation treatment and produce images of body structures for the diagnosis and treatment of injury and disease. Medical radiation technologists who are supervisors or instructors are included in this group.

Main duties:
- Operate X-ray, radiographic and fluoroscopic equipment, computerized tomography (CT) scanners, mammography units and magnetic resonance imaging (MRI) scanners to produce radiographs or anatomic images of the human body for the diagnosis by radiologists of disease or injury
- Record and process patient data
- Perform basic verification and quality control checks on radiographic and film processing equipment
- Provide appropriate care and monitoring of the patient during the radiographic examination
- Explain procedures, position patient and equipment and apply radiation protection measures
- May train and supervise student radiographers or supervise other radiological technologists

Additionally, Nuclear medicine technologists and Radiation therapists perform some or all of the following duties:
- Prepare and administer radiopharmaceuticals, such as radionuclides and other tracer materials to patients or to biological samples
- Operate radiation detection equipment, such as gamma cameras, scanners, scintillation counters, tomodensitometers and ionization chambers, to acquire data for use by nuclear medicine physicians in the diagnosis of disease
- Perform diagnostic procedures using radioactive materials on biological specimens, such as blood, urine and faeces
- Check equipment to ensure proper operation, and provide appropriate care and monitoring of the patient during the examination
- Operate linear accelerators, cobalt 60, X-ray and other radiation therapy equipment to administer radiation treatment prescribed by radiation oncologists, and assist radiation oncologists and clinical physicists with preparation of radiation treatment plan
- Assist in the preparation of sealed radioactive materials such as cobalt, radium, cesium and isotopes and the construction of devices such as plaster casts and acrylic moulds to assist with administration of radiation treatment

Earnings and Related Information
- BC Provincial average full-time salary: $53,000 - $66,000
- Hourly rate range $28.00 - $42.00 (Source: Census, 2006)

Employment in BC and Career Paths
It is predicted by WorkBC that by 2020, there will be a 1:3 ratio of number of unemployed people in this sector to the number of new job openings.

Education, training and qualifications
Completion of a two- to three-year college, hospital or other approved program in diagnostic radiography or magnetic resonance imaging (for radiological technologists and magnetic resonance technologists), nuclear medicine technology (for nuclear medicine technologists) or radiation therapy (for radiation therapists) or a bachelor of health sciences in radiography, nuclear medicine or radiation therapy and a period of supervised practical training

Licensure with a regulatory body is required in all provinces, and Certification by the Canadian Association of Medical Radiation Technologists is required in all provinces except Quebec

People in this occupation:
- Work in hospitals, cancer treatment centres, clinics, radiological laboratories, research and education facilities, and in equipment sales and service and training
- Should have an interest in science and technology
- Need to be detail-oriented, patient and able to apply good problem-solving, critical-thinking and organizational skills
- Use computers for electronic imaging in most facilities
- Must be able to work well as part of a team and communicate effectively (to both co-workers and patients), and work compassionately with patients who have acute and chronic illnesses

Employment requirements:
- Completion of a two- to three-year college, hospital or other approved program in diagnostic radiography or magnetic resonance imaging (for radiological technologists and magnetic resonance technologists), nuclear medicine technology (for nuclear medicine technologists) or radiation therapy (for radiation therapists) or a bachelor of health sciences in radiography, nuclear medicine or radiation therapy and a period of supervised practical training
- Licensure with a regulatory body is required in all provinces, and Certification by the Canadian Association of Medical Radiation Technologists is required in all provinces except Quebec

Additional information
There is no mobility between the three types of medical radiation technologists without further training; Experience as a medical radiation technologist is required for supervisors and instructors

Certification by the Canadian Association of Medical Radiation Therapists (CAMRT) and the British Columbia Association of Medical Radiation Technologists (BCAMRT), which also allows them to be a member in the national CAMRT