



## IDENTIFICATION

<b>Department</b>	<b>Position Title</b>	
Northwest Territories Health and Social Services Authority	Medical Radiation Technologist II	
<b>Position Number</b>	<b>Community</b>	<b>Division/Region</b>
48-10088	Yellowknife	Diagnostic Imaging Services/Stanton

## PURPOSE OF THE POSITION

The Medical Radiation Technologist II provides day-to-day technical guidance and support for the Diagnostic Imaging Department at Stanton. The incumbent will also provide diagnostic X-ray and Computed Tomography (CT) services, as part of a rotation, to patients of the Diagnostic Imaging (DI) Department in accordance with established standards of practice in Radiology and will adhere to the philosophy and objectives of the Northwest Territories Health and Social Services Authority (NTHSSA) to competently produce quality images which enables the Radiologist to accurately and timely diagnose patients.

## SCOPE

The Northwest Territories Health and Social Services Authority (NTHSSA) is the single provider of all health and social services in the Northwest Territories (NWT), with the exception of Hay River and Tłı̨chǫ regions, covering 1.2 million square kilometers and serving approximately 43,000 people, including First Nations, Inuit, Metis, and non-aboriginals. Health and social services includes the full range of primary, secondary and tertiary health services and social services including family services, protection services, care placements, mental health, addictions, and developmental activities, delivered by more than 1,400 health and social services staff.

While the Tłı̨chǫ Community Services Agency (TCSA) will operate under a separate board and Hay River Health and Social Services Agency (HRHSSA) will in the interim, the NTHSSA will set clinical standards, procedures, guidelines and monitoring for the entire Northwest Territories. Service Agreements will be established with these boards to identify performance requirements and adherence to clinical standards, procedures, guidelines and policies as established by the NTHSSA.



Cultural safety is an outcome where Indigenous peoples feel safe and respected, free of racism and discrimination, when accessing health and social services. Relationship based care is fundamental to cultural safety because it prioritizes the need for trusting, caring and ongoing relationships between patients and clients with providers. Embedding a culturally safe approach in Health and Social Services has been identified as critical to supporting equitable access to care with the long-term goal of improving health outcomes for Indigenous peoples.

The incumbent is expected to model, honour, and promote a culturally safe environment at all times, including working from a perspective that is anti-racist and trauma-informed, employing self-reflection to encourage the professional growth and whole person development of self and others. Indigenous worldviews, practices, and customs must also be respected.

Stanton Territorial Hospital is an accredited facility, located in Yellowknife, Northwest Territories (NWT). Stanton is the referral center for approximately 43,000 NWT residents and 5,900 residents from the Kitikmeot Region of Nunavut. Stanton provides health care services to adults and children on an inpatient/outpatient and outreach basis to restore health with dignity.

Located within Stanton Territorial Hospital and reporting to the Technical Supervisor, Diagnostic Imaging, the incumbent provides technical guidance and support for the Medical Radiation Technologists in the delivery of general x-ray, fluoroscopy and CT services. The incumbent works as part of the Diagnostic Imaging Department team that consists of Medical Radiation Technologists, and Sonographers.

Approximately 33,000 diagnostic imaging examinations are performed annually (approximately 100 exams per day), through referrals from medical/nursing practitioners.

Most CT, general radiography and fluoroscopy exams will be conducted on an individual basis where the incumbent works directly with the patient and is responsible for all images produced. In addition, on a scheduled basis, the incumbent will be required to provide hands-on support and patient care during invasive examinations conducted by a Radiologist or other specialists (i.e. starting intravenous lines (IV), IV push, preparation for barium enemas, injections under fluoroscopy guidance, etc.). During these invasive procedures, the incumbent will be responsible for all preparation including explaining the procedure to the patient, acquiring the images and post procedure care as required. The incumbent will assess the risks for allergies and co-morbidities such as diabetes before injecting contrast and be prepared for any potential allergic reactions to the contrast. Challenges include patient being unprepared, tight schedule and language barriers.

The incumbent provides x-ray services (fluoroscopy) in the Operating Room for surgeons using C-Arm. In some instances, the portable X-Ray machine must be utilized.



The incumbent is responsible for ensuring the continued operation of all radiographic equipment such as the direct radiography (DR) equipment, fluoroscopy unit, C-Arm and computed tomography (CT) unit.

The incumbent is responsible for supporting the Technical Supervisor, Diagnostic Imaging in providing subject matter expert input and guidance, developing and updating of protocols, standard operating procedures (SOP's) and processes and for the on-boarding and training of new Medical Radiation Technologists employees. Medical Radiation Technologist II's are required to work shift including days, evenings, weekends, holidays and overnight on-call coverage.

## **RESPONSIBILITIES**

### **1. Independently performs all types of radiology and CT procedures in accordance with established NTHSSA policies and procedures and governing bodies, producing high quality diagnostic images for diagnosis of the patient by the Radiologist.**

- Demonstrates patient and family centered care and quality principles in the provision of services to patients and families.
- Ensures the patient is a candidate for the procedure, understands the procedure and explains the risks associated.
- Reviews patient history and interviews the patient to obtain relevant information required before performing the examination (i.e. history and symptoms).
- Examines and evaluates images for technical and diagnostic quality.
- Advocates the dignity and self-respect of patient.
- Applies all methods and standards of radiation protection for patients and employees.
- Obtains written consent for invasive procedures from the patient.
- Based on in-depth knowledge of human anatomy and radiographic procedures the incumbent must make creative decisions on how to best attain quality images with patients of a variety of sizes and ailments.
- Promotes the autonomy of patients and helps them express their health needs and values to obtain appropriate information and services.
- Safeguards the trust of patients, ensuring appropriate patient privacy and confidentiality, and that information learned in the context of a professional relationship is shared outside the health care team only with the patient's permission or as legally required.
- Provides direct patient care and support during all types of examinations.
- Acts in a manner consistent with their professional responsibilities and standards or practice.
- Conducts administrative tasks or any other tasks, as required by the employer, related to the department and that would promote the vision, mission and values of STH and the NTHSSA.
- Participates and engages in quality improvement initiatives.



**2. Assists in reviewing, developing, and implementation of policies, procedures and protocols and quality assurance activities.**

- Assists the Technical Supervisor, DI Services to develop and implement protocols for general radiography and fluoroscopy.
- Prepares and maintains all CT Protocols and Procedures with support from the Technical Supervisor, DI Services in accordance with best practice guidelines.
- Conducts research and review of best standards of practice to guide the review and development of policies, procedures and protocols.
- Provides suggestions and recommendations for changes to Technical Supervisor for consideration.
- Participates in peer-review of Diagnostic Imaging Department related documents, including but not limited to clerical, territorial and ultrasound procedures.
- Assists the Technical Supervisor and Manager, DI Services in the DHSS procurement process for new equipment.

**3. Ensures medical radiation technologists are trained and onboarded to the Diagnostic Imaging Department in a standardized way, using developed training materials based on best practice guidelines, service excellence and established protocols and procedures.**

- With the Technical Supervisor, DI Services, develops and routinely reviews training checklists and materials for CT, general radiography and fluoroscopy.
- Trains all new technologists in a standardized format using approved training checklists and materials as part of the onboarding process.
- Orients and trains new staff to work area, new procedures, equipment, contrast media injectors, etc.
- Performs competency assessments regularly on all staff working in CT, general duty and fluoroscopy.
- Assists the Technical Supervisor, DI Services in monitoring and maintaining staff training progress and identifies any necessary support needed.
- Certifies technologists for IV puncture for contrast media injections.
- Assists in certifying technologists for the CT Imaging Certificate through the Canadian Association of Medical Radiation Technologist (CAMRT).
- Motivates and guide others to promote excellence in clinical practice through routine image critique and competency assessments.

**4. Coordinates and manages the day-to-day workload in the CT program.**

- Demonstrates patient and family centered care and quality principles in the provision of services to patients and families.
- Plans and organizes the workload within the area.
- Ensures the proper process is followed in the performance of the requested service and the testing performed is accurate and valid.



- Refers unusual requests to the appropriate personnel in a timely manner.
- Reviews all booked CT examinations, actively performs technical functions in the CT area, reviews requisitions and patient history to identify radiologist's requirements.
- Initiates intravenous (IV's) for injection of contrast media under the indirect supervision of the Radiologist and ensures all the necessary information to allow contrast injection is recorded (i.e. creatinine, eGFR, etc.).
- Palpates (identifies external landmarks) on patients in order to focus on targets for CT examination. This can be quite difficult due to the variety of sizes and shapes of patients.
- Uses the combined senses of touch, sight and hearing during all parts of the procedure (i.e. initiating IV's, preparation for rectal contrast) and continuous observation during examination.
- Obtains written consent for invasive procedures from the patient.

**5. Develops, monitors and maintains the CT Service.**

- Develops and maintains the necessary examination protocols in conjunction with the radiologists.
- Maintains responsibility for inventory control of supplies needed for CT.
- Collaborates with staff to identify patient/customer needs and fosters a team environment as part of the overall service.
- Continuously evaluates scheduling (patient and staff) to maximize patient flow and departmental efficiency, in conjunction with departmental peers.
- Participates and engages in quality improvement initiatives.
- Assists with test trials, new products, equipment and procedures.
- Communicates with various stakeholders regarding utilization of service.
- Compiles and reports KPIs for CT to the Manager.

**6. Provide the day-to-day technical guidance/support for general radiography, CT and fluoroscopy.**

- Provides technical expertise for the Diagnostic Imaging staff.
- Ensures that medical supplies are adequate for performing all procedures and are responsible for the ordering and coordination of supplies with Technical Supervisor, DI services approval.

**7. Assists in the coordination of continued maintenance and repair services of CT, general radiography and fluoroscopy equipment.**

- Assists in coordinating and monitoring the scheduling of preventative maintenance with appropriate service providers.
- Responsible for communicating equipment downtime to appropriate stakeholders.
- Assists in maintaining a log of all maintenance reports.



8. **Provides support and expertise to the Manager and Technical Supervisor, DI services for quality improvement initiatives and quality assurance processes in the Diagnostic Imaging Department.**
  - Provides coverage for day-to-day operations for Technical Supervisor, DI with support from the Manager, DI Services in times of annual or other leave. Responsibilities for coverage will include managing sick calls, scheduling, pay approval and urgent operational requests.
  - Participates as a member of the NTHSSA Diagnostic Services Quality Team.

## **WORKING CONDITIONS**

### **Physical Demands**

Most of the incumbent's time involves supporting, moving patients, moving and adjusting equipment including overhead x-ray equipment, C-Arm and portable x-ray machine. These activities result in physical fatigue and stress. Potential problems included lower back problems and repetitive strain injuries (e.g. shoulder wrists). Standing and operating the C-Arm during surgery in the Operating Room (during the duration of the surgery which can be more than one hour) is physically fatiguing.

### **Environmental Conditions**

Although universal precautions are in place, the incumbent is continually exposed to low doses of ionizing radiation during x-ray examinations. Quarterly monitoring is done to ensure the incumbent's radiation exposure level is within limits. Investigations will be conducted on each known or suspected case of excessive or abnormal exposure to determine the cause and to take remedial steps to prevent its recurrence. The incumbent is required to work with ill, emotionally upset patients, patients with contagious diseases (TB, HIV, and Hepatitis), open wounds (patients in Emergency and Operating Room), and is at risk of being exposed to blood, body fluids and excrements (use of rectal contrast).

### **Sensory Demands**

The incumbent is required to use the combined senses of touch, sight and hearing during ongoing assessment (i.e. initiating IV's, preparation for barium enemas) and continuous observation during testing. The incumbent is required to palpate (identify external landmarks) on patients to focus in on targets for radiographic examination. This can be challenging because of the variety of health conditions, sizes and shapes of patients. The incumbent must be aware of the feeling of security for the patient when doing invasive procedures. The Technologist may need to have a chaperone present based on the nature of the exam performed.

### **Mental Demands**



Patients coming into the Diagnostic Imaging Department are often very ill or have experienced a severe trauma. As such, the incumbent may be exposed to death/dying or other emotionally disturbing experiences where the incumbent is expected to remain calm, controlled and professional regardless of the situation and demonstrate compassionate care to the client. Dealing with this anxiety can cause high levels of mental stress on the incumbent.

The incumbent is expected to work evenings, weekends and on-call coverage independently. Overnight callbacks and working alone can have significant adverse effects on the incumbent personal life (stress, lack of sleep, pressure).

There is pressure to produce optimal images within a set length of time. This is hampered by: physical size and age of the patient, lack of adequate patient preparation, patients being in pain and/or shock, patients intoxicated, uncooperative patients arriving late for appointments and patients with language barriers.

### **KNOWLEDGE, SKILLS AND ABILITIES**

- Knowledge of radiology and CT to provide quality images for interpretation by the Radiologists.
- Knowledge and understanding of clinical relevance for CT examination to change or modify the examination or protocols to obtain good quality images.
- Ability to coordinate and manage the day-to-day workload in the CT program.
- Ability to support in the development and maintaining of necessary examination protocols in conjunction with the Radiologist, and Technical Supervisor, DI Services
- Ability to plan, organize and prioritize work.
- Ability to work efficiently as part of a multi-disciplinary health care team.
- Able to communicate effectively with technical, medical, and administrative personnel and patients both verbally and written.
- Ability to work under pressure in emergency situations and can make independent decisions when performing procedures and assessing diagnostic results.
- Ability to maintain positive relationships with DI as well as with internal and external customers.
- Ability to ensure the quality of work within the area meets the national standards of CAMRT and Canadian Association of Radiologists (CAR)
- Skills and an ability to efficiently operate a Radiology Information System (RIS) and Picture Archiving Communication Systems (PACS).
- Able to develop and train other staff members to be competent and confident when working in general Xray, fluoroscopy and CT in an inclusive and supportive manner.
- Ability to commit to actively upholding and consistently practicing personal diversity, inclusion and cultural awareness, as well as safety and sensitivity approaches in the workplace.



**Typically, the above qualifications would be attained by:**

A Diploma or Degree in Medical Radiation Technology from an accredited post-secondary institution, completion of the Certificate in CT Imaging (CTIC) through the CAMRT, and three (3) years of related experience in the operation of a CT service with relevant experience in general radiography and fluoroscopy.

Equivalent combinations of education and experience will be considered.

**ADDITIONAL REQUIREMENTS**

- Certification and registration under CAMRT as a member in good standing upon initial hire and must be maintained throughout the term of employment. This is a bona fide requirement.
- Proof of immunization in keeping with current public health practices is required
- IV certification (must be obtained within 30 days)
- Continuing education to remain current with ever-changing technology
- Acquire 15 credits in medical imaging (or health care related topics) every three years.

**Position Security (check one)**

No criminal records check required  
 Position of Trust – criminal records check required  
 Highly sensitive position – requires verification of identity and a criminal records check

**French language (check one if applicable)**

French required (must identify required level below)  
Level required for this Designated Position is:  
**ORAL EXPRESSION AND COMPREHENSION**  
Basic (B)  Intermediate (I)  Advanced (A)   
**READING COMPREHENSION:**  
Basic (B)  Intermediate (I)  Advanced (A)   
**WRITING SKILLS:**  
Basic (B)  Intermediate (I)  Advanced (A)   
 French preferred

**Indigenous language: Select language**

Required  
 Preferred