



## IDENTIFICATION

Department	Position Title	
Northwest Territories Health and Social Services Authority	Medical Radiation Technologist	
Position Number	Community	Division/Region
48-6148	Yellowknife	Territorial Operations/Clinical Integration/Diagnostic Imaging/Stanton Territorial Hospital

## PURPOSE OF THE POSITION

The Medical Radiation Technologist (MRT) is responsible to 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. The philosophy and objectives of the Northwest Territories Health and Social Services Authority (NTHSSA) to competently produce quality images which supports the Radiologist in the accurate and timely diagnosis of 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), 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.



STH is an accredited facility, located in Yellowknife, NWT. STH is the referral center for approximately 43,000 NWT residents and 5,900 residents from the Kitikmeot Region of Nunavut. STH provides health care services to adults and children on an inpatient/outpatient and outreach basis in order to restore health with dignity. STH maintains a tobacco free environment within the building and throughout the property, recognizing the health hazards associated with tobacco in the workplace, both to smokers and non-smokers alike.

Since 2013, the NWT health and social services system has been engaged in a strategic renewal process. This began with System Transformation, a multi-year, community engagement-driven process to develop a model for an integrated health and social services system. The resulting changes to the system's governance structure have enabled a one system approach, allowing for greater efficiency and integration while better respecting the unique contexts and strengths of the NWT's distinct regions and cultures.

Building off the results and momentum of System Transformation, the strategic renewal effort has now begun a process of Primary Health Care Reform to shift the system and its care models towards a team and relationship-based approach that is driven through public participation, community feedback, and data, and built upon a foundation of trust and cultural safety. Using a community development approach, we are changing the way we work with people and communities, at every level of the health and social services system, to enable public participation in priority setting, planning, and design that integrates the social determinants of health.

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.

At STH in Yellowknife, the MRT reports directly to the Technical Supervisor, Diagnostic Imaging Services. The incumbent works as part of a small team that provides diagnostic imaging testing to patients. The team consists of the Technical Supervisor, Senior Technologist- Computed Tomography (CT), Medical Radiation Technologists and Sonographers.



The DI Department handles approximately 33,000 diagnostic imaging examinations on an annual basis (approximately 100 exams per day). Practitioners refer patients to the DI Department. The production of diagnostic images (i.e. x- rays and ultrasound) is a critical function within the STH. Without the production of timely and accurate images the hospital would be unable to provide comprehensive diagnosis and treatment of patients.

Most of the exams CT, general radiography and fluoroscopy, 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 (i.e. starting intravenous lines (IV), IV push, preparation for barium enemas, biopsies under CT guidance, etc.). During these invasive procedures the incumbent will be responsible for all preparation of the procedure 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 issues.

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 CT unit.

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.

Within the DI Department, the Medical Radiation Technologists and the Senior Technologist-CT will be required to provide on-call coverage outside of operational hours for general x-ray and CT. The MRT also is included in a shift rotation at Yellowknife Primary Care Centre (YPCC) for general x-ray.

## **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 evaluate 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. Coordinates and manages the day-to-day CT workload.**

- 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.
- Consults with radiologist and ordering practitioners to clarify any unusual requests 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 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).
- Palpates (identifies external landmarks) on patients in order to focus in on targets for CT examination.
- 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.

**3. Performs basic quality control (QC) tests in accordance with Safety Code 35 from Health Canada and by the NTHSSA Policies and Procedures in order to maintain image quality and to ensure a safe environment for patients and health professionals.**



- Performs daily monitoring of equipment.
- Trouble-shoots equipment issues, within the incumbent's field of expertise.
- Identifies problems or concerns, notifying the Technical Supervisor and consulting with field service engineers on potential resolution.
- Completes minor maintenance on machines as required.
- Runs and records QC tests using STH/NTHSSA approved record keeping processes.

## **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 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 on-going 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 in order to focus in on targets for radiographic examination. This can be challenging as a result 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 on-call 6 to 10 times per rotation (16 hours per shift). The incumbent will work weekends as part of the established rotation, including weekend standby call. Average of 2 to 3 callbacks per stand-by shift 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**

- Specialized knowledge of Radiology and an ability to effectively use varied types of diagnostic equipment required to produce quality images for diagnosis of the patient by the Radiologist.
- Knowledge of CT and an ability to produce quality images for reporting and diagnosis by the Radiologist.
- Working knowledge of and an ability to efficiently operate a Radiology Information System (RIS) and Picture Archiving Communication System (PACS).
- Ability to produce high quality x-rays and an ability to provide technical direction to others as required.
- Effective communication skills, this includes ability to articulate pertinent information to both medical and non-medical individuals in a clear and concise 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:**

This level of knowledge, skills and abilities is typically obtained through the successful completion of a Diploma or Degree in Medical Radiation Technology and workplace CT training (or willing to obtain)

Equivalent combinations of education and experience will be considered.



## ADDITIONAL REQUIREMENTS

- Certification and registration under CAMRT prior to the commencement of employment.
- Certificate in CT Imaging (CTIC) through CAMRT or willing to obtain within three years of hire.
- Proof of immunization in keeping with current public health practices is required.
- IV certification
- Continuing education to remain current with ever-changing technology.
- Acquire 15 credits in medical imaging (or health care related topics) every three years.

Stanton Territorial Hospital has a number of certifications that are required upon hire, depending on the area where the employee works, including but not limited to: Aboriginal Cultural Awareness, Biohazardous Waste, Biosafety & Biosecurity, Infection Control, Workplace Hazardous Materials Information System (WHMIS) and others directly related to the incumbent's scope of practice.

## Position Security

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

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:** To choose a language, click [here](#).

Required  
 Preferred