



IDENTIFICATION

Department	Position Title	
Northwest Territories Health and Social Services Authority	Mammography / Medical Radiation Technologist	
Position Number	Community	Division/Region
48-6743	Yellowknife	Operations and Allied Health / Stanton Territorial Hospital

PURPOSE OF THE POSITION

The Mammography/Medical Radiation Technologist provides both mammography and diagnostic X-ray services to patients of the Diagnostic Imaging unit and Breast Screening Program in accordance with established standards of radiological practice and the philosophy and objectives of the Northwest Territories Health and Social Services Authority to ensure quality images are produced which enable 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 (HSS) in the Northwest Territories (NWT), with the exception of Hay River and Tłıchǫ 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 Tłıchǫ 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.

Stanton Territorial Hospital (Stanton) is an accredited facility, located in Yellowknife, and 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 in order to restore health with dignity.

Located in Yellowknife at Stanton, the Mammography/Medical Radiation Technologist (MMRT) reports directly to the Technical Supervisor, Diagnostic Imaging (DI), and is part of a small team of Radiological Technologists who provide radiological testing (x-ray) of patients. The incumbent works as part of the DI team consisting of the Technical Supervisor, Radiological Technologists, a Mammography Technologist, Sonographers and a Senior Technologist- Computed Tomography (CT).

The Diagnostic Imaging unit handles approximately 33,000 diagnostic imaging examinations on an annual basis (approximately 100 exams per day). Practitioners refer patients to the Diagnostic Imaging unit. The production of diagnostic images (i.e. x- rays and ultrasounds) is a critical function within Stanton, and 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 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. preparation for barium enemas, biopsy of lumps in the breasts). During these invasive procedures the incumbent will be responsible for all preparation of the procedure, including explaining the procedure to the patient, assisting the Radiologist during biopsies, documenting all pertinent information, collecting biopsy specimens, acquiring images, post procedure care as required and patient education. The incumbent will assess the risks for allergies and co-morbidities such as diabetes before injecting contrasts and be prepared for any potential allergic reactions to the contrast. Challenges include patient being unprepared, tight schedule and language issues.

The incumbent participates in reviews of patients' result with the Radiologist and determines if further views are required for accurate diagnosis. This is done on a case-by-case basis and during Assessment Reviews (part of the Quality Assurance of the Breast Screening Program).

This position is responsible for ensuring the continued operation of radiographic equipment such as the direct radiography (DR) equipment, fluoroscopy unit, C-Arm and mammography unit; and will provide x-ray services (fluoroscopy) in the Operating Room for surgeons using the C- Arm. In some instances, the portable x-ray machine must be utilized.

During the biopsy of suspicious area in the breast, the incumbent is required to triangulate microscopic lumps using multi-angle images. After the exact spot targeted by the technologist, the Radiologist will insert a biopsy needle and take a sample of this area. It is absolutely critical for the incumbent to correctly identify areas of concern. This requires extreme concentration and the use of the sense of touch and sight. The incumbent will be required to palpate (identify external landmarks) on patients in order to focus in on targets for radiographic examination. This can be difficult as a result of the variety of sizes and shapes of

patients. The incumbent has to be aware of the feeling of security for the patient when doing invasive procedures. The Technologist may need to have another female or male present (i.e. male technologist inserting rectal tubes on female patients, etc.).

The nature of the work may expose the incumbent to death/dying or other emotionally upsetting experiences as well as a vast variety of emotional behaviours. The incumbent is expected to remain calm, controlled and professional in all situations and to demonstrate compassionate care to the client.

Within the Diagnostic Imaging unit the MMRT will be scheduled in mammography on a regular basis. During this time they are responsible to perform testing under the established Quality Control program and breast imaging protocols. They will also be required to rotate through the Yellowknife Primary Care Clinic.

RESPONSIBILITIES

1. Independently perform mammography and all types of general radiology and procedures in accordance with established policies and procedures of STH, and governing bodies, producing high quality images for diagnosis of the patient by the Radiologist.

- Provide patient and family centered care and quality principles in the provision of services to patients and families.
- Ensure the patient is a candidate for the procedure, understands the procedure and explains the risks associated.
- Review patient history and questions the patient to obtain relevant information required before performing the examination (i.e. history and symptoms). Obtaining accurate information from the patient is imperative for the incumbent as altered breast anatomy (i.e. implants, mastectomy, radiation treatment and chemotherapy) will alter the delivery of the exam procedure.
- Based on in-depth knowledge of human anatomy and radiographic procedures, determine how to best attain quality images with patients of a variety of sizes and ailments.
- Examine and evaluate images for technical and diagnostic quality.
- Advocate the dignity and self-respect of patients.
- Apply all methods and standards of radiation protection for patients and employees.
- Obtain written consent for invasive procedures from the patient.
- Promote the autonomy of patients and helps them express their health needs and values to obtain appropriate information and services.
- Safeguard 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.
- Provide direct patient care and support during all types of examinations.
- Act in a manner consistent with their professional responsibilities and standard of practice.

- Act as a liaison between the patient and Radiologist; relays all significant findings from the examination to the Radiologist in order to support accurate diagnosis.
 - Process and evaluate examinations for technical and diagnostic quality. This may include discussions with the Radiologist to outline procedures followed.
 - Complete all necessary paperwork, packages and issues biological samples (i.e. breast lump biopsy) to appropriate testing facilities
 - Acquire current patient data to maintain the screening mammography database used for patient recall and statistical information as required by the Department of Health and Social Services (DHSS NWT Breast Health Advisory Committee and Public Health Agency of Canada).
 - Perform administrative or any other tasks related to the unit, as required by the employer that would promote the vision, mission and values of Stanton and NTHSSA.
- 2. Independently perform basic quality control tests in accordance with Safety Code 35 (Radiological Equipment) and Safety Code 33 (Mammography Equipment) from the Radiation Protection Bureau of 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.**
- Daily monitoring of equipment and conduct quality control (QC) tests on mammography equipment including but not limited to phantom images, repeat analysis test, compression test, visual inspection monitor evaluation. Document QC results in appropriate log books.
 - Troubleshoot as indicated by QC results.
 - Identify problems or concerns, notifies Technical Supervisor and consult with field service engineers.
 - Complete minor maintenance on machines as required.
 - Double-check the accuracy of information or own work (i.e. ensure the accuracy of figures and other data).
 - Participate and engage in quality improvement initiatives.
- 3. Maintain the Mammography Accreditation Program (MAP) with the Canadian Association of Radiologists (CAR).**
- Participate in the accreditation process by performing the required testing for MAP.
 - Collaborate / work closely with the Breast Screening Program Coordinator.
 - Complete a minimum of 15 credits hours of continuing education every three years.

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.

Work activities include standing and operating the C- Arm during surgery in Operating Room (during the duration of the surgery which can be more than one hour).

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.

The incumbent is required to work with ill, emotionally upset patients, patients with contagious diseases (TB, HIV, and Hepatitis), and/or open wounds (Emergency, Operating Room) and may be exposed to blood, body fluids and excrements (use of rectal contrast).

Sensory Demands

The incumbent will be 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.

Mental Demands

Patients are often very ill or have experienced a severe trauma. The core reason for any mammogram, screening or diagnostic, is to rule out cancer of the breast.

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 and uncooperative patients arriving late for appointments and patients with language barriers.

KNOWLEDGE, SKILLS AND ABILITIES

- 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 Mammography including all special view positioning and the ability to produce quality mammograms for the screening and diagnosis of breast pathology.
- Knowledge of human anatomy in order to effectively conduct radiographic examinations and identify pathology (i.e. to determine if the image produced meets the diagnostic requirement of the Radiologist).
- Ability to produce high quality x-rays and an ability to provide technical direction to others as required.
- Knowledge of standard quality control processes in order to perform Quality Control testing as required by Safety Code 35 (Radiological Equipment).
- Skills and ability to efficiently operate a Radiology Information System (RIS) and Picture Archiving Communication System (PACS).
- Ability to apply all methods and standards of radiation protection for patients and employees.
- Ability to safeguard the trust of patients, ensuring appropriate patient privacy and confidentiality,
- Ability to communicate effectively with both medical and non-medical individuals.

Typically, the above qualifications would be attained by:

A Diploma or Degree program in Medical Radiation Technology as well as one (1) year of experience as a General Radiation Technologist, workplace mammography experience and successful completion of Breast Imaging 1 and Breast Imaging 2 courses (Mammography 1 and Mammography 2 prior to 2019) through CAMRT or successful completion within one (1) year of hire.

A Certificate in Breast Imaging (CBI) from CAMRT would be an asset

ADDITIONAL REQUIREMENTS

Proof of immunization in keeping with current public health practices is required.

Certification and registration under CAMRT prior to the commencement of employment.

Job holder will also be required to ensure completion of:

- Continuing education to stay current with the ever-changing technology.
- Acquiring 15 credits in breast imaging at a CAR-MAP accredited facility 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 (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