

1. IDENTIFICATION

Position No. 10-14950	Job Title Medical Radiation Technologist - Mammography/CT/X-Ray	Supervisor's Position Manager Diagnostic Imaging and Services
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Department Health	Division/Region Diagnostic Imaging and Services	Community Iqaluit	Location Qikiqtani General Hospital
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Fin. Code: 10643-01-2-235-1000000-01

2. PURPOSE

<p>Main reason why the position exists, within what context and what the overall end result is.</p> <p>The Technologist provides general radiological, mammography and CT responsibilities. These are performed with adherence to the Code of Ethics and the Standard of Practice of the Canadian Association of Medical Radiation Technologists (CAMRT) and the Canadian Association of Radiologists (CAR).</p> <p>The technologist must have a sound understanding of Mammography, CT and X-Ray techniques, anatomical positioning and physiology so that independent selection and modification of technical parameters is used to produce optimum imaging results. The technologist takes charge of patients and performs a variety of diagnostic or therapeutic procedures for clinical purposes.</p> <p>The Technologist is available as a resource to the nurses and basic radiographers in the Community Health Centres</p>
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3. SCOPE

<p>Describe the impact the position has on the area in which it works, or if it impacts other departments, the government as a whole, or the public directly or indirectly. How does the position impact those groups/individuals, the organization and/or budgets? What is the magnitude of that impact?</p> <p>Reporting to the Manager Diagnostic Imaging Services, the Technologist is instrumental in providing services to the Qikiqtani General Hospital and Territory of Nunavut. This position fulfills all general radiology, mammography and CT requirements, in the absence of an onsite Radiologist, by using a variety of equipment. Holter Monitor, cardiac Event Recorder and electrocardiogram services are also provided to the QGH and the Territory.</p> <p>The Technologist consults with the physicians and other medical staff as well as providing radiological technical expertise and support to the nursing staff in the outlying communities. This position impacts on the excellence of patient care, treatment and diagnosis provided by the health care team.</p> <p>Services required outside the department's service hours are covered on an "on-call" (standby) basis shared by the staff Technologists. Staff is expected to take turn in the rotating schedule (day, evening, week-ends) to ensure coverage for the department.</p> <p>In the absence of the Manager, the Technologist may be call upon to lead and direct day to day operations.</p>

4. RESPONSIBILITIES

<p>Describe major responsibilities and target accomplishments expected of the position. List the responsibilities that have the greatest impact on the organization first and describe them in a way</p>

that answers *why* the duties of the position are being performed. For a supervisory or management position, indicate the subordinate position(s) through which objectives are accomplished.

Production of Mammograms:

- Performs Mammograms as required by the medical staff according to established procedure and guidelines for breast imaging as recommended by the Canadian Association of Radiologists. (CAR);
- Assesses which views are appropriate in the absence of an on-site radiologist;
- Reviews previous mammograms if available;
- Interviews patient/client for present and previous pertinent medical history;
- Explains the procedure to the patient/client and make the patient/client feel at ease;
- Selects the exposure factors appropriate to the examination;
- Applies compression to the breast;
- Administers the radiation exposure;
- Assesses the images for the need of further alternate views to be done in the absence of a on-site radiologist.

Modality Specific Accountabilities:

- Operates the CT scanner and X-Ray machine to produce scans/images using established guidelines and CT/X-Ray protocols;
- Prepares and positions the patient for the procedure by using established CT/X-Ray protocols;
- Starts IV access according to standard procedure;
- Questions patients prior to administration of IV contrast media to determine allergies, etc. Select, prepare and draw up contrast by using sterile techniques and operates contrast injector;
- Determine the possibility of pregnancy in women of child-bearing age prior to exam and informs the physician before performing the requested procedure if the patient/client is pregnant;
- Ensures that the correct patient is received for the exam;
- Explains in detail the exam to be performed in order to allay any fears;
- Observes the patient at all times during the exam. Notifies physician/nursing staff immediately, if a patient's pathological or traumatic condition requires immediate medical attention or if continuing the procedure jeopardizes everyone's safety;
- Must be able to work well under pressure and react quickly in an emergency situation;
- Recognizes a patient in distress or in an emergency situation-know the emergency protocols of the hospital and initiate appropriately;
- Provide basic aid and CPR as required;
- If required, evaluates images to determine, in consultation with a Radiologist, if further investigation is required before the patient is sent home;
- Takes the initiative to provide special or added views necessary to aid in the diagnosis, without the direction of an on-site radiologist;
- Consults with the ordering Physician or the Doctor on-call regarding unexpected atypical findings;
- Performs any reformatting or post-processing necessary to complete the exam after the patient has left;
- Identifies image artifacts and determines what caused them and makes correction if possible;
- Troubleshoot various equipment and computer errors by monitoring message readouts and assessing image quality. Repair minor problems or call appropriate service personnel when required;
- Performs daily quality assurance testing. These tests maintain safe operation and ensure diagnostic quality images are attained at all times;
- In consultation with radiologists, develop protocols and procedures as required and/or when new applications are added;
- Orders supplies and maintains adequate inventory;
- Participates in training and supervision of technical staff in CT Imaging procedures and proper equipment operation;
- Assists in the development and maintenance of procedure manuals as required to keep standards current;
- Participates in educational sessions and conferences to keep current as technology evolves;

- Uses patient radiation protection devices as well as wears a radiation film badge (TLD) which is sent to Ottawa every three months to be read determining the amount of radiation received;
- Ensures that restraints and immobilization devices are used properly and only in the appropriate situations and circumstances;
- Provides radiological services to other areas in the hospital, i.e. by using a portable x-ray machine in the O.R., or various wards;
- Follows universal precautions for isolation and for Operating Room portable cases;
- Performs and records ECG's, Holter Monitor and Cardiac Event Recorder studies as required by Medical Staff, in the x-ray department or wherever required;

Office/Administrative Responsibilities:

- Scanning into PACs x-ray images from outlying communities;
- E-mailing or burning digital copies of images, when feasible, to specialists in the south;
- Receiving and sorting mail.

Community Health Centre Resource:

- Advises the basic radiographer and/or nursing staff, in the Community Health Centres on x-ray procedures by phone when necessary;
- Collaborates with nursing and other health care professionals as necessary;
- Orientates the Community health Centre nursing staff within the Territory with a basic knowledge of x-ray procedures and functions, and radiation protection measures, by explaining the use and function of radiology equipment and examinations and reviewing the teaching file.

Image Assessment

The Technologist assesses the diagnostic quality of images and takes appropriate corrective action if required. To do this the technologist must:

- Set appropriate window and contrast levels;
- Ensure that the region of interest has been totally scanned;
- Provide pertinent information to service personnel in the event that technical or software problems lead to sub-standard image quality.

Image Processing and Archiving

The Technologist must be able to successfully manipulate the image data and then transfer to the chosen archiving medium. To do this the technologist must:

- Be cognizant of the archiving media available
- Manipulate the image data by correct use of software;
- Understand and manipulate correctly any ancillary equipment used to send images electronically from the operating console to any reception point on the imaging network;
- Prepare and send images out via PACS to the Radiologist for interpretation.

Contrast Media and Medications

The technologist is required to administer contrast media. To perform this function, the technologist must :

- Be trained in intravenous administration of contrast;
- Determine if the patient has any allergic history, report any such result to the physician and also record in PACS and Meditech;
- Ensure Creatinine and GFR levels (from bloodwork) have been obtained and checked prior to the administration contrast media. These levels must have been provided within the last 6 months.
- Determine if the patient has correctly followed preparation orders before the examination or procedure;
- Properly store contrast media;
- Select, and prepare contrast media or medication by using and maintaining sterile techniques;
- Prepare patient physically and emotionally for the injection of contrast media;
- Ensure that a valid consent is signed and witnessed, if required.

- Ensure all emergency drugs are stocked and equipment is functioning before the injection is undertaken;
- Observe injection site post administration of contrast;
- Observe the patient for adverse reaction and inform the physician immediately;
- Administer or assist physicians in administration of oxygen, suction, medications or other resuscitative measures;
- Record any medications given including amount, route and time administered and documentation of reactions;
- Complete occurrence reports as required;
- Informs the patients or nursing staff of any post procedure instructions and care.

CT Procedures

The technologist is required to assist the physician in imaging procedures that may be diagnostic or therapeutic in nature. To fulfill this function, the technologist will perform nursing care duties and imaging procedures that involve the whole patient. These duties include:

- Monitoring the patient's vital signs as required;
- Monitoring the patient for any adverse reactions

5. KNOWLEDGE, SKILLS AND ABILITIES

Describe the level of knowledge, experience and abilities that are required for satisfactory job performance.

Knowledge identifies the acquired information or concepts that relate to a specific discipline. *Skills* describe acquired measurable behaviors and may cover manual aspects required to do a job. *Abilities* describe natural talents or developed proficiencies required to do the job.

These requirements are in reference to the *job*, not the incumbent performing the job.

Contextual Knowledge

- Accepted Radiology Positioning and Procedure Manual;
- CAMRT and CAR standards of practice;
- Methods and techniques to perform ECG, Holter Monitor and Cardiac Event Recorder studies;
- Methods and techniques of film critique, general duty radiology, Mammography, CT, pathology and medical terminology.
- Knowledge of radiation hazards and ensures the department's practice of radiation safety precautions is adhered to;
- Applicable legislation, policies and procedures including knowledge of ATIPP and privacy best practices.

Skills and Abilities

- Ability to safely and efficiently operate the Radiographic, Mammography, CT and the Portable units as required, in order to produce quality images for the purpose of interpretation by a Radiologist for diagnosis to aid in the client's treatment;
- Ability to communicate effectively in both verbal and written format, with medical or non-medical personnel and all clients, in order, to contribute to the effective and efficient operation of the Diagnostic Imaging Department;
- Ability to function as a contributing member of the multi-disciplinary team to coordinate patient scheduling as well as independently, due to the requirement of working on an "on-call" basis after regular working hours and in the absence of an on-site Radiologist;
- Ability to use good judgement in making quick and correct decisions in a professional manner, especially during emergency situations or when dealing with difficult or distraught clients, is a necessary requirement as there is no radiologist on site;
- Ability to recognize atypical findings and initiate the appropriate action (contact the referring Physician immediately). Failure to do so, directly impacts upon the care, treatment and ultimate morbidity of the patient;
- Must have or be willing to obtain CAMRT continuing education credits to maintain accreditation standards.

- Ability to prioritize patients according to illness, availability of staff and availability of examination room(s);
- Computer skills including Microsoft office.

The above knowledge, skills and abilities are typically acquired through;

- Successful completion of a 3-year accredited and recognized college program in the discipline of medical radiological technology OR Successful completion of a degree in medical radiation technology;
- CAMRT Mammography Level 1 and 2 or equivalent and obtain continuing education credits to maintain accreditation standards;
- Specialized on-site training at an accredited Breast Imaging Centre;
- CT Imaging Certificate from CAMRT;
- IV Therapy Certificate;
- Must have annual certification in CPR and WHIMS;
- Must be a current registered member in good standing with the CAMRT (Canadian Association of Medical Radiation Technology);
- Two years post graduate experience practising mammography;
- The ability to communicate in more than one of Nunavut’s official languages is an asset.

This is a Highly Sensitive Position. Vulnerable Sector and Criminal Records checks are required.

6. WORKING CONDITIONS

List the unavoidable, externally imposed conditions under which the work must be performed and which create hardship for the incumbent. Express frequency, duration and intensity of each occurrence in measurable time (e.g. every day, two or three times a week, 5 hours a day).

Physical Demands

Indicate the nature of physical demands and the frequency and duration of occurrences leading to physical fatigue or physical stress.

Work is normally performed in a fast paced environment where contact with the public, client/patient/resident and other health professionals are required. The technologist works independently and is responsible for evaluating images to ensure patient assessment is complete.

- Lifting and positioning of clients of all sizes. Everyday periodically throughout the day;
- Pushing and manoeuvring a heavy mobile unit -3-4 times/week;
- Working with ergonomically incorrect equipment.—Daily;
- Carrying heavy cassettes and files. Daily 7.5 hours per day;
- Wearing of a lead apron periodically throughout the 7.5 hour day;
- Standing and walking on hard floors 7.5 hours/day;
- Bending and lifting files, stock and storage of same-everyday periodically throughout the day;
- Position requires “on call” services, after regular department scheduled hours. Rotational call shared with 2 other staff. Occurs more frequently when other staff are on vacation or days off;
- Recalled to work at any time, for various lengths of time and as often as deemed necessary by the physician on call. Rotational call shared with 2 other staff. Occurs more frequently when other staff are on vacation or days off;
- Sleep disruption and sleep deprivation. Must report to work daily even when on call. Rotational call shared with 2 other staff. Occurs more frequently when other staff are on vacation or days off.

Environmental Conditions

Indicate the nature of adverse environmental conditions to which the jobholder is exposed, and the frequency and duration of exposures. Include conditions that increase the risk of accident, ill health, or physical discomfort.

- Continuous risk of exposure to infectious diseases-ongoing;
- Possible injury from disturbed patients-occasionally;
- Patient/staff safety re: regular exposure to ionizing radiation-periodically when patient restraint is needed.

Sensory Demands

Indicate the nature of demands on the jobholder's senses. These demands can be in the form of making judgments to discern something through touch, smell, sight, and/or hearing. It may include concentrated levels of attention to details though one or more of the incumbents' senses.

- Work with difficult patients; i.e. quadriplegic, ICU patients, cancer patients, claustrophobic patients, infants and children with stressed parents;
- Constant exposure to equipment noise-daily 7.5 hours;
- Potential for eyestrain due to working in a dimly lit room -daily/occasionally;
- Exposure to trauma-occasionally;
- Exposure to violent and or intoxicated patients-occasionally;
- Palpitating breast lumps – daily when doing mammograms

Mental Demands

Indicate conditions within the job that may lead to mental or emotional fatigue that would increase the risk of such things as tension or anxiety.

- Increased responsibility results from working in a remote area without a radiologist on site. The technologist may periodically be called and consulted by physicians around patient diagnosis-daily 2-3 occurrences;
- Share "on-call" duty. Rotational call shared with 2 other staff. Occurs more frequently when staff are on vacation or days off;
- Exposure to emotionally difficult situations (trauma or death)-occasionally;
- Dealing with patient anxiety-daily;
- Performing very personal examinations-daily;
- Occasionally, sleep disruption and sleep deprivation may occur while on-call;
- Impact on family life when on call, while providing radiological and CT services. Rotational call shared with 2 other staff. Occurs more frequently when staff are on vacation or days off;
- Lack of control over work pace-high service demand-daily.

7. CERTIFICATION

_____ Employee Signature	_____ Supervisor Title
_____ Printed Name	_____ Supervisor Signature
_____ Date:	_____ Date
I certify that I have read and understand the responsibilities assigned to this position.	I certify that this job description is an accurate description of the responsibilities assigned to the position.
_____ Deputy Head Signature	
_____ Date	
I approve the delegation of the responsibilities outlined herein within the context of the attached organizational structure.	

8. ORGANIZATION CHART

Please attach Organizational Chart indicating incumbent's position, peer positions, subordinate positions (if any) and supervisor position.

“The above statements are intended to describe the general nature and level of work being performed by the incumbent of this job. They are not intended to be an exhaustive list of all responsibilities and activities required of this position”.