

Job Class Profile: Diagnostic Imaging Technologist I**Pay Level: LX-27 Point Band 682-716**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	5	3	4	6	3	3	4	2	6	
Points	233	50	25	29	90	65	83	43	64	682

JOB SUMMARY

The Diagnostic Imaging Technologist I performs responsible technical diagnostic imaging services. The work involves producing diagnostic images which are interpreted by physicians and used in medical diagnosis. Work also involves operating a variety of technical equipment and the Picture Archive Communication System (PACS) to manipulate and annotate images, and may involve assisting senior technologists or physicians in various and more complex diagnostic imaging procedures. Work also involves the maintenance of equipment, quality control, and practicing radiation safety measures.

Key and Periodic Activities

- Verifies patient identification and provides information regarding procedures to patients.
- Positions patients for x-rays, as appropriate, based on their range of mobility and condition to ensure quality imaging, and performs scans in which radiographic image are stored to the electronic PACS system.
- Retrieves images from PACS system, reviews the image for quality, annotates (i.e. notes placement, left or right side), and enters applicable notes, etc. to the system.
- Enters completed scans and physicians written orders into the electronic system for access by the radiologist who views the scans and finalizes the report before viewing is available to healthcare providers.
- Performs routine and specialized radiographic x-rays in the department and with mobile x-ray machines in various areas of the facility including patient, operating, and emergency rooms.
- Sets up and performs specialized diagnostic procedures with a radiologist including procedures such as intravenous pyelograms (IVPs), barium enemas, upper GI series, hip injections, etc.
- Enters completion of the examination into the hospital diagnostic imaging system (Meditech).
- Supervises and mentors radiography students.
- Operates other diagnostic imaging equipment in and outside the department which includes x-ray tubes, radiographic table, radiographic plates, and fluoroscopic c-arm in the operating room.
- Performs quality control on a variety of equipment to ensure safety, dependability, and reliability.

Key and Periodic Activities

- Maintains department and equipment cleanliness (i.e. portable x-ray machines and plates).
- Troubleshoots problems with x-ray equipment and calibrates machines.
- Orders department supplies, and restocks x-ray rooms as appropriate.
- May register patients for procedures as appropriate (i.e. evenings and weekends).
- Attends learning and development courses and seminars.

SKILL

Knowledge

General and Specific Knowledge:

- Specific knowledge of:
 - Diagnostic Imaging processes, and body positioning techniques (e.g. anatomical positioning)
 - Technical and complex imaging machines
 - Human anatomy and physiology
 - Radiation Health and Safety
- Knowledge of the organization's databases such as Meditech and PACS

Formal Education and/or Certification(s):

- Minimum: 3 Year Specialized Diploma in Medical Radiography, registration as a RT with the Canadian Association Medical Radiation Technologists
- BLS (Basic Life Support) certification

Years of Experience:

- Minimum: Less than 1 year

Competencies:

- Ability to follow instruction and procedures
- Ability to operate a computer
- Ability to prioritize tasks and activities
- Maintenance and calibration of radiographic and processing equipment

Interpersonal Skills

- A range of interpersonal skills are used to listen, ask questions, gather information, and provide information and direction regarding procedures to patients and students and to provide care/comfort/nurturing to patients who may be nervous during procedures. May be required to deal with angry or upset patients who are waiting for their procedure.
- Communications occur with patients and their families, employees, physicians (radiologist), manager, and students. Communications may also occur with internal department executives, professional advisors, and sales representatives of the x-ray equipment to help troubleshoot or explain problems with the machines.
- The most significant contacts are with patients and families to listen and provide support and care and with employees when communicating information to team members.

EFFORT

Physical Effort
<ul style="list-style-type: none"> — The demands of the job regularly result in considerable fatigue requiring the need for strength and endurance. — Constantly lifts, moves objects, repositions, pushes and pulls objects, and transports patients to and from testing area (i.e. supplies, equipment, portable x-ray machines, radiology plates, lead vests, and patients), less than 10 lbs, between 10-50 lbs (barium bottles, linens, gowns for patients, etc.), and over 50 lbs. — Required to constantly stand and walk for extended periods, and works in awkward or cramped positions when performing x-rays. Occasionally sits to view scans on the computer, answer the telephone. — Constantly using equipment that requires rapid and physical movements. — Fine finger or precision work is constantly required to annotate images on the PACS.
Concentration
<ul style="list-style-type: none"> — Visual concentration is required when observing patients to ensure their safety and to ensure they follow directions during procedures, to watch monitors and screens during procedures, to read requisitions from doctors, and to enter information into the computer system. — Auditory concentration includes listening to multiple stakeholders including physicians and nurses when performing testing, patients to relay information and to listen to their requests. Also listens to equipment or machines to ensure they are working properly. — Other sensory demands include touching in order to position patients during procedures (i.e. touch various body parts to determine injury and to ensure anatomical landmarks are identified in the images). — The tasks that are repeated and require alertness is positioning machines to set up images on the computer, viewing monitors and computers, and positioning patients in order to obtain certain views and to ensure accuracy in placement before taking x-rays. A higher level of alertness and attentiveness is required when performing x-rays when patients are critically ill, infectious, unstable, or compromised, in order to obtain accurate images as quickly as possible, and to ensure the patient's safety. — Does not have control over their work pace when there are emergencies, equipment failure, and when working outside of regular hours with reduced staffing levels. Technologists' are subject to time pressures and deadlines due to the unpredicted number of patients for procedures (i.e. some procedures do not require appointments), and when there are excessive numbers of urgent patients to be seen, who may be critical. — Eye/hand coordination are required when performing all x-rays, adjusting machines, and annotating images using PACS to drag markers on the screen or enter text on the image. — Exact results and precision are required when performing scanning. The technologist must ensure they identify certain anatomical landmarks for image accuracy; otherwise, scans will have to be repeated.
Complexity
<ul style="list-style-type: none"> — The tasks and activities are quite different, but allow the use of similar skills and knowledge. — Tasks are repetitive, well defined, involve a wide variety of responsibilities and situations, have

simple problems with obvious solutions, and for which there is a limited number of issues that can be addressed by following procedures, guidelines, or solved in a team setting. At times tasks may require creative problem solving for addressing unique situations. Maintaining quality patient care is sometimes a challenge with a high volume of patient flow.

- Typical problems involve finding innovative methods to obtain images of patients who may be compromised either physically or mentally (i.e. broken bones, critically ill from medical conditions or a car accident, or who are intoxicated).
- When addressing problems and solutions, follows procedures, guidelines, reviews health and safety manuals, and follows advice from coworkers and supervisors.

RESPONSIBILITY

Accountability and Decision-Making

- The nature of this work is structured where there are lead technologists and the supervisor occasionally reviews for standard compliance. Technologists can independently make decisions related to procedure modification, patient health and safety, and restocking or ordering some departmental supplies.
- Approval is required to add patients to the list of booked procedures, changes to policy and procedures, purchasing supplies, and changing or cancelling patient appointments.
- Situations where discretion and judgment are used to interpret directions and apply guidelines are in relation to after hours when patients are uncooperative. The technologist can request a delay in performing procedures.
- A high degree of independent discretion and judgment is exercised when performing scans such as deciding whether images are suitable, determining if data collected is viable, and if there is procedural modification required for challenging patients.
- Within predetermined limits and procedures, when x-rays are to be performed on patients outside the Diagnostic Imaging Department, the technologist can request that a patient travel to the department for their x-ray in order to achieve a higher quality result.

Impact

- Work activities impact the immediate work area, the department, patients, and the public.
- The work could either negatively or positively impact the health and safety of patients when conducting procedures. The most significant impact would be on patients as a result of the procedures performed or exposure to radiation.
- The resources that are impacted by this type of work are equipment, processes and systems, information (mix up of patient names on reports), facilities, material resources, corporate image, and health and safety.
- The type of errors that could occur is improper patient identification, or failure to take appropriate images. These errors are mitigated as the work tasks are moderately monitored and controlled and are generally detected immediately, as the technologist reviews the final scan images prior to the patient leaving the department, and then reviewed by the radiologist before the final report is submitted to the attending physician.

Development and Leadership of Others

- There is no supervision of staff.

- Provides development and leadership responsibilities such as guidance, feedback, acts as a technical mentor to students, and provides on the job training and orientation to employees and students.

WORKING CONDITIONS

Environmental Working Conditions

- There is a requirement to use safety equipment such as radiation monitoring badge, lead vests/shields, gloves, gowns, goggles, x-ray shields, use sharp containers, and practice ALARA (As, Low, As, Reasonably Achievable) principals to reduce radiation. Also practices safety precautions and techniques when performing x-rays.
- There is limited likelihood of receiving minor cuts, bruises or minor illnesses and significant likelihood of receiving injury or occupational illness resulting in partial or total disability.
- Constantly exposed to glare from a computer or camera when viewing scans, radiation, bodily fluids and waste from procedures (i.e. barium enemas), infectious diseases, odours, and awkward or confining workspaces. Regularly, there is exposure to physical danger or threats, sharp objects, use of heavy equipment/machinery (lead aprons, portable x-ray machine), and unusual distracting noise from overhead pagers, telephone, and noise from people interacting in a busy department.