Job Class Profile: Radiation Therapist III

Pay Level: LX-35  
Point Band: 962-996

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JOB SUMMARY

The Radiation Therapist III performs supervisory technical work over lower level therapists performing various radiological diagnostic and therapeutic simulation procedures in the use of radiation to detect and treat cancerous tumors under the prescribed treatment plan of a radiation oncologist. Work involves responsibility for maintaining high standards of technical performance, development and maintenance of a Quality Assurance Program, coordination of department activities, ensuring therapists become fully competent in the utilization of new equipment and treatment techniques, and performs a full range of technical procedures typical of the full working level therapist.

Key and Periodic Activities

— Supervises technical staff in their day-to-day activities; ensures staffing requirements are met; coordinates and organizes the workload; manages leave requests; provides direction and makes decisions regarding technical problems; and participates in the performance appraisal process.
— Develops, monitors, and maintains a Quality Assurance Program to ensure the delivery of optimal radiation therapy treatments in collaboration with the Quality Assurance Department.
— Ensures standardization of all treatment techniques through regular participation in simulation and treatment.
— Observes all complex radical setups during commencement of treatments ensuring treatments are double checked by two therapists.
— Performs on-site checks of work performance.
— Provides direction and makes decisions regarding technical problems, and consults with Medical Physicists and Radiation Oncologists as required.
— Participates in treatment record audits.
— Supervises the implementation of new treatment techniques.
— Participates in chart and patient rounds.
— Conducts regular meetings with senior therapists to identify issues in each of the specialized radiation areas; and participates in committees and staff meetings.
— Participates in the development of policy and procedures and in the preparation of the departmental budget; and monitors expenditures and the utilization of human and material resources.
— Maintains professional and technical standards by keeping abreast of new trends in radiation therapy; participates in continuing education; ensures therapists become fully competent in the
### Key and Periodic Activities

- **utilization of new equipment through appropriate training and in-service; revises current treatment techniques, and coordinates their upgrading.**
- Performs routine and complex treatment plans as seen in the full working level therapist positions.
- Liaises and collaborates with the interdisciplinary team regarding radiation therapy issues including the Radiation Safety Officer to ensure patient and staff safety practices, policies comply with provincial and federal regulations.
- Provides emergency radiation treatments when on call.
- Provides orientation and training to new therapists, other health care professionals, and training to radiation therapy students.

### SKILL

#### Knowledge

**General and Specific Knowledge:**
- Specialized clinical knowledge in radiation therapy procedures and techniques
- Knowledge of treatment planning and calculation software.
- Technical and complex equipment/machines
- Human anatomy and physiology
- Radiation and Workplace Health and Safety
- Quality assurance practices and guidelines including occurrence reporting.

**Formal Education and/or Certification(s):**
- Minimum: Undergraduate Degree or Diploma in Radiation Therapy and certification from the Canadian Association Medical Radiation Technologists (CAMRT) in Medical Radiation Technology, MRT(T), and registration as a Registered Radiation Therapist (RTT).
- BLS (Basic Life Support) certification

**Years of Experience:**
- Minimum: 4 - 5 years

**Competencies:**
- Computer skills
- Maintenance and calibration of radiation and processing equipment
- Oral and written skills
- Team leadership and development
- Adult learning principles
- Conflict resolution skills

### Interpersonal Skills

- A range of interpersonal skills are used to listen, ask questions, gather and provide information to staff and members of the healthcare team; to explain routine and communicate complex information and procedures to staff, patients, students, and healthcare providers; provide expert advice and guidance to therapists and students; gain the cooperation of employees to complete
work: provide care/comfort/nurturing to patients; to instruct, teach or train staff and students, may make formal presentations and facilitate or moderate meetings as a liaison for the Radiation Therapy department with Nursing, Radiation Physics and Radiation Oncology and deal with angry/upset people.

— Communications occur with employees within the immediate work area, department, other departments and with outside agencies including physicians (Radiation Oncologist, Medical Physicist), patients and their families, students, manager, professional advisors, peers employed with the government, professional associations, healthcare professionals, suppliers/contractors, sales representatives, government representatives, external executives.

— The most significant contacts are with employees within the immediate work area to maintain high standards of technical performance and patient care; physicians (Radiation Oncologist, Medical Physicist) and representatives from Nursing, Radiation Physics and Radiation Oncology; manager as well as patients and families.

**EFFECT**

### Physical Effort

— The demands of the job occasionally result in considerable fatigue and require the need for strength and endurance.

— Occasionally lifts or moves objects less than 10 lbs (i.e. supplies, charts, wedge blocks, lead shield blocks, etc.), and regularly objects between 10-50 lbs (i.e. supplies, equipment, breast board, immobilization devices, and superficial treatment machines) requiring strength and endurance. Pushes and pulls patients over 50 lbs, in order to position or reposition them in the appropriate place to perform treatments.

— Required to regularly stand, walk, or sit for extended periods when performing procedures/treatments, consulting with staff, or reviewing data on monitors.

— Fine finger or precision work is regularly required to work various controls on machines requiring very controlled movements. Also uses hand tools that require accurate control and steadiness. Gross motor skills are also regularly required to reposition patients and to operate heavy equipment.

### Concentration

— **Visual concentration** is required to match patient’s skin tattoos to the intersection of laser lines, to observe patients via closed circuit camera for movements which could result in incorrect simulation or treatment and require immediate termination of treatment, and to confirm accurate position of radiation treatment beams. **Visual concentration** is also required to monitor various pumps for alarms, to perform procedures (i.e. placement of a tungsten shield on a patient’s eyeball), monitor computer screens, and to observe radiation equipment to ensure proper functioning.

— **Auditory concentration** is required during patients’ treatment to listen for signs of patients stress via intercom, to communicate with staff regarding patients’ treatments, listen for proper functionality of radiation equipment, listen for alarms on equipment, overhead paging system for emergencies, and staff to communicate and provide direction on practices, policies, etc.

— Other sensory demands such as **touch** are used when setting up treatments to reposition patients or to perform certain procedures (i.e. placement of an immobilization mask).
The tasks that are repetitive and require alertness include treating numerous patients per day with specific treatment plans, often having the same diagnosis and name, and turning the radiation beam on. A higher level of alertness and attentiveness is required when working around heavy equipment, giving radiation treatments to ensure radiation is delivered to the right patient, it is correct and accurate, and to ensure patients comfort and safety.

Does not have control over their work pace when there are emergencies, when patient treatments are complicated by their condition, or they are nervous requiring a sedative, delays caused by physicians’ schedules, equipment malfunctions, and when there are reduced staffing levels.

Therapists’ are subject to time pressures and deadlines due to the complication of the treatments, which may exceed the scheduled appointment time. Other time pressures occur when there are delays in receiving treatment plans, emergencies, and when patient’s medical conditions require more time, or there are urgent patients that have to be scheduled. Interruptions occur from patients, family members, other therapists, manager, or health professionals requesting information.

Eye/hand coordination are required to operate hand devices, monitor a camera and control a radiation machine by hand, maintain equipment, and mark patients body with ink marks for treatment preparation.

Exact results and precision are required to match patients’ internal anatomy and markings (tattoos) within 5 mm or less to those taken in the simulator with the recordings and markings in the live treatment sessions. Some treatments require even closer results of between 3-4 mms. Exact results and precision are also required when doing calculations, and treatment set-ups (i.e. markings must align with the treatment room lasers). Radiation treatments once given cannot be corrected, but do have the potential to harm a patient.

Complexity

Work tasks and activities are different/unrelated and require the use of a broad range of skills and a diversity of knowledge.

The complexity of work tasks vary but are related to the supervisory technical work performed including responsibility for maintaining high standards of technical performance, development and maintenance of a Quality Assurance Program, coordination of departmental activities, ensuring competence in the utilization of new equipment and treatment techniques.

Typical problems involve assessing the daily workload with the number of staff, scheduling and directing staff activities to other areas; maintaining professional and technical standards by keeping abreast of new trends in radiation therapy, participating in policy and procedure development, ensuring compliance with relevant provincial and federal government regulations, monitoring requirements for treatment plans and ensuring availability of those plans, and clinically solving similar problems as other therapists during the treatment process.

When addressing problems and solutions, consults with the manager, radiation oncologist; and follows procedures, policies, guidelines, and Radiation Acts and regulations. Other issues are addressed and resolved within various departmental committees.

RESPONSIBILITY

Accountability and Decision-Making
— Can independently make decisions related to staffing such as approving limited leave periods and overtime, rearranging assignments and/or schedules of staff, and rebooking patients to different treatment machines.

— Decisions that require supervisory approval are related to postponing or delaying a new patient’s treatment, cancelling patient’s treatment, giving staff extended period of leave, and releasing patient information.

— Situations where discretion and judgment are used to interpret directions and apply guidelines are in relation to checking and verifying patients x-rays prior to commencement of their radiation treatments. Other situations where a high degree of independent discretion and judgment are used are related to contacting a physician for treatment related issues or changes, and discretion used in making changes in treatments based on target volumes, and other factors. Within predetermined limits and procedures, has some discretion in giving staff time off, organizing staff and emergency patient planning and treatment schedules, and the rescheduling/organizing of staff and patients as a result of machine malfunctions.

Impact

— Work activities impact the immediate work area, the department, outside the department, patients, and the public.

— The work either could negatively or positively impact the patients’ treatment and well-being.

— Work activities impact the following resources: equipment (i.e. radiation machines), processes and systems (i.e. policies, procedures, practices, quality assurance), information, material resources (i.e. supplies used), corporate image, finances (i.e. sending patients outside the province for treatments), human resources (i.e. staffing levels), and the health and safety of patients.

— Examples of types of errors are calculation errors in treatment plans which can cause a patient to be underdosed or overdosed, both of which are serious resulting in failure to cure the cancer or lead to permanent damage or death.

— Errors are mitigated as the work tasks are highly monitored and controlled. Therapists work in teams with each person checking the work of another, and there are quality assurance checks done on treatment plans, calculations, and machines consistently and errors are generally detected immediately.

Development and Leadership of Others

— Typically responsible for direct and ongoing bargaining unit supervisory activities for a large size work group of employees (>10 employees).

— Provides other development and leadership responsibilities such as on-the-job advice/guidance, and orientation to new staff. Works in a training center for radiation therapists and thus, provides students with feedback on their performance, and both students and staff on the job training, and acts as their technical mentor.

— Performs team lead activities such as teaching radiation therapy students, troubleshooting technical issues for staff, and performing quality assurance on treatment charts.

— Does not perform project lead activities.

WORKING CONDITIONS

Environmental Working Conditions
| Required to take special precautions or use safety equipment when performing treatments such as wearing radiation monitoring devices and to practice safety precautions and techniques. |
| There is a moderate likelihood of receiving minor cuts, bruises or minor illnesses, fractures, injury or occupational illness resulting in a partial disability. There is no likelihood of receiving a total disability, if all safety precautions are followed. |
| Constantly exposed to radiation, glare from monitors/screens, dirt/dust, unusual/distracting noise and heat from machines, sharp objects (i.e. needles to give tattoo’s), heavy machinery, awkward or confining workspaces, electrical shocks, odours, bodily fluids and waste, infectious diseases, odours, hazardous chemicals, vibration, and limited lighting. Regularly, has lack of privacy and occasionally, is exposed to wet or slippery surfaces. |