



Advanced Practice Registered Technologist (Radiation Therapy)

Competency Profile

Advanced Practice
in Medical Radiation
Technology



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APRT(T) Competency Profile

Introduction

An Advanced Practice Registered Technologist (Radiation Therapy) (“APRT(T)”) is an experienced radiation therapist with advanced knowledge, skills and judgment in radiation therapy. The APRT(T) employs graduate level educational preparation to practice at a higher cognitive level in clinical radiation therapy. The central focus of the APRT(T) is optimizing radiation treatment and improving patient health outcomes in the realm of radiation therapy overall, and specifically in his/her area of expertise. APRT(T)s can work at all stages of the patient journey with a focus on effectiveness, efficiency and evidence-based practice.

It is expected that the APRT(T) will practice:

- with the patient as the central focus
- in accordance with national and provincial Codes of Ethics · within their respective scope and standards of practice
- in accordance with all relevant provincial and national legislation
- in accordance with departmental protocol, practice and policy
- as guided by Delegation or as outlined in a Medical Directive (where such legislation permits)
- with due regard for radiation protection and overall safety

In addition, certified APRT(T)s are accountable for:

- their decisions and actions
- working within their scope of practice
- limiting their practice to the patient population and aspects of practice for which they have the necessary knowledge, skills and judgment to manage
- collaborating with the members of the interprofessional team in the best interest of their patients
- employing best practices in all aspects of patient care and treatment
- maintaining competence through regular clinical practice of advanced radiation therapy practice in their area of specialization.

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CORE CLINICAL COMPETENCIES

Works as a member of the interprofessional care team to provide optimal patient care for patients

Competency	Indicators of Performance
C1. Ensure that all relevant patient information is available for clinical decision making	<ul style="list-style-type: none"> • Analyzes/synthesizes available information against established guidelines in advance of patient appointment: <ul style="list-style-type: none"> ○ To determine if information is complete to proceed with booking/assessing patient ○ To order to specific diagnostic tests that have not been completed/are not available as per protocol
C2. Assess the patient's physical condition	<ul style="list-style-type: none"> • Establishes eligibility for, initiation of or continuation of radiation therapy • Differentiates between radiation induced side-effects and symptoms of disease progression or other treatments/conditions • Interprets all available relevant information and assessments including: <ul style="list-style-type: none"> ○ Physical/clinical examination ○ Patient history ○ Diagnostic imaging, laboratory and pathology tests ○ Other pertinent information
C3. Assess the patient's cognitive condition and psychosocial status	<ul style="list-style-type: none"> • Interprets all available relevant information and data including: <ul style="list-style-type: none"> ○ Patient discussions ○ Validated tools and documents ○ Discussions with family members/care givers ○ Other symptoms/indicators
C4. Obtain informed consent for required diagnostic procedures, therapeutic interventions or radiation therapy treatments	<ul style="list-style-type: none"> • Explains and ensures patient understanding of the following: <ul style="list-style-type: none"> ○ the nature of the treatment; ○ the expected benefits of the treatment; ○ the material risks of the treatment; ○ the material side effects of the treatment; ○ alternative courses of action; and ○ the likely consequences of not having the treatment

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Competency	Indicators of Performance
<p>C5. Formulate and implement an appropriate overall approach for patient management and care</p>	<ul style="list-style-type: none"> • Synthesizes available data and information to determine patient care plan and treatment goals: <ul style="list-style-type: none"> ○ Includes patient/family/caregiver as partners in the decision-making process (e.g. patient preferences and limitations, etc.) ○ Presents the plan fully disclosing all available alternatives including the advantages and disadvantages of each to the patient/family/caregiver ○ Provides the necessary information/support for the patient/family/caregiver to understand and comply with the plan • Prescribes a course of radiation therapy based on patient's individual case • Refers patient to other health care providers and/or services as appropriate or when issue is outside of scope • Continually monitors patient compliance and acceptance of care plan • Revises care plan as necessary • Ensures patient and family/caregiver understanding of the plan and its goals
<p>C6. Communicate results that will impact patient's course of treatment</p>	<ul style="list-style-type: none"> • Adheres to appropriate guidelines regarding patient confidentiality and privacy issues • Uses appropriate language to communicate a disease or disorder findings to the patient • Uses appropriate language to communicate a disease or disorder findings to other health care professionals
<p>C7. Prescribe/dispense pharmaceutical from defined and approved formulary</p>	<ul style="list-style-type: none"> • Assesses for the discrete and specified conditions described (e.g. pain management, radiation treatment sequelae, etc.) • Follows dispensary protocols in accordance with department protocol and patient care guidelines • Conducts patient education prior to prescription/administration • Selects optimal dosage, timing and route of administration • Monitors patient response to medication and takes appropriate action in the event of an adverse reaction

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CORE TECHNICAL COMPETENCIES

Uses advanced oncologic, radiobiological and dosimetric knowledge to optimize the use of available technology for the provision of tailored radiation therapy treatment to patients

Competency	Indicators of Performance
<p>T1. Provide autonomous technical consultation and advice through integration of relevant clinical, diagnostic and technical information at all phases of the radiation therapy planning and treatment process</p>	<ul style="list-style-type: none"> • Patient specific consultation is provided to inform technical decisions to optimize quality of radiation treatment as it relates to: <ul style="list-style-type: none"> ○ Patient positioning and immobilization ○ Field placement ○ Treatment accessories ○ Image guidance ○ Simulation protocol • Identifies when individual patient approach falls outside of protocol and how to modify the approach • Uses experiences to identify opportunities to improve and develop class solutions for processes, procedures, policies, technical standards, imaging protocols, etc.
<p>T2. Implement decisions regarding technical treatment accuracy and precision and dose/fractionation appropriateness by interpreting and integrating available clinical, technical and radiobiological information</p>	<ul style="list-style-type: none"> • Selects/uses most suitable imaging technology(s) (x-ray, CT, MR, PET, etc.) based on local availability and department protocols/policies to inform target delineation <ul style="list-style-type: none"> ○ Develops strategies to optimize the use of available technology • Identifies/delineates/assesses GTV, CTV, ROI/OARs, in accordance with current international standards and local protocols • Employs available information (e.g., identified anatomical changes, set up uncertainties, equipment variations) to critically review the relative position of relevant anatomy compared to identified volumes • Uses available information to render decisions on: <ul style="list-style-type: none"> ○ Prescribing a course of radiation therapy ○ Optimizing treatment plans, particularly in complex/non-standard cases ○ Starting treatment ○ Holding treatment ○ Adapting treatment • Establishes when protocol should be followed or when an individualized approach is required

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CORE PROFESSIONAL COMPETENCIES

Uses research and evidence-based practice principles to serve as a quality champion, influencer, role model, mentor and innovator in radiation therapy and particularly in their area of specialization.

Competency	Indicators of Performance
A) RESEARCH AND EVIDENCE-BASED PRACTICE	
R1. Conduct original research to contribute to the professional knowledge base	<ul style="list-style-type: none"> Identifies areas for research Initiates and leads platform development including project development, grant application, long range planning, etc. Undertakes activities related to the conduct of research – e.g. literature review, research design, proposal/grant writing, ethics submissions, data collection and analysis, communication of results, publications, etc. Assumes responsibility for project management including establishing and meeting external and internal deadlines Ensures work meets standards for publication
R2. Lead and participate in quality improvement of program/service/department as a member of the interprofessional health care team	<ul style="list-style-type: none"> Employs research and program evaluation methods to assess program/service/department quality Uses available key performance and quality indicators Collects and assesses available evidence in accordance with established criteria Formulates judgments and conclusions Suggests strategies for programmatic change
R3. Lead the ongoing development of best practices using evidence-based approaches	<ul style="list-style-type: none"> Undertakes all aspects of an evidence-based approach – e.g. Creating and using databases, establishing quality indicators, analysis of existing literature and practices, research activity, risk management considerations, etc. Collaborates with people/programs/services to understand, implement and assess evidence based approaches
B) LEADERSHIP	
L1. Optimize the function of the health care team through continual assessment, audit, evaluation and strategic visioning as a key member of the interprofessional health care team	<ul style="list-style-type: none"> Takes responsibility for ensuring role clarity for advanced practice in radiation therapy and possible contributions to the existing team Develops strategies for addressing identified barriers to/gaps in optimal team functioning Effectively negotiates solutions to problems identified in the patient care pathway Suggests strategies for new/improved service provision or models of care Proactively identifies opportunities to develop new partnerships Maintains networks of community stakeholders (referring physicians, community agencies, etc.) Advocates for the role of the radiation therapist

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Competency	Indicators of Performance
L2. Create and maintain a team to ensure safe and effective practice	<ul style="list-style-type: none"> • Identifies necessary resources (physical and human) to address identified need • Develops implementation plan to meet project/program goals • Contributes to the collective effectiveness of the team by: <ul style="list-style-type: none"> ○ Participating in candidate interviews ○ Supervising staff where appropriate ○ Providing constructive feedback on performance
L3. Coach and mentor staff, students, other health care providers	<ul style="list-style-type: none"> • Provides constructive guidance and feedback to mentees (including undergraduate and graduate trainees) and staff • Provides guidance and assists with the development of action plans with mentees and staff to improve performance and achieve career goals
C) EDUCATION	
E1. Develop an educational activity to address an identified need/gap	<ul style="list-style-type: none"> • Identifies an educational need • Uses a variety of formats as appropriate for the specific activity (formal/informal, didactic/clinical, lecture/hands on, written/electronic, etc.) <ul style="list-style-type: none"> ○ For any target population (undergraduate and graduate students, patients/family/caregiver, community, other health care professionals, etc.) ○ In a variety of professional environments (clinic, classroom, workshop, conference, one-on-one, etc.) • Assesses learning needs • Creates plan and materials for learning • Delivers educational intervention • Evaluates effectiveness of the activity