Ontario Health
Cancer Care Ontario

Role of RNs and RPNs in Ambulatory Systemic Treatment

Purpose

The COVID-19 pandemic has exacerbated health human resource staffing issues, including nursing, impacting outpatient systemic treatment. This document serves to provide guidance on the role Registered Nurses (RNs) and Registered Practical Nurses (RPNs) can play in providing care to support the delivery and toxicity management of patients on active systemic treatment. These recommendations aim to guide sites experiencing critical nursing shortages impacting the delivery of ambulatory systemic treatment. More detailed documents and guidance will be released at a later date.

Principles

While all ambulatory systemic treatment clinics and suites utilize RNs, the role of RPNs can vary based on hospital policy. The College of Nurses of Ontario's 3 factor framework[1] was used as a foundation to guide the potential utilization of the role of RPNs in systemic treatment. See Appendix A for how the 3 factor framework was applied. The following principles should guide the implementation of this document by each hospital:

1. The role of the RN is important in systemic treatment. Every program must have RNs present and available. The proportion of novice RNs and RPNs must be balanced with experienced RNs, and experienced RNs must be available for RPNs and novice RNs to consult with.

2. Cancer programs must have clear policies, procedures, medical directives, protocols, plans of care, care pathways, and assessment tools which can be easily accessed by RNs and RPNs.

3. RPNs should only be considered to complement the RNs in administration of systemic treatments when there is an ongoing critical shortage of RNs that are impacting the timely delivery of effective treatment and after all supportive roles have been maximized as outlined in this document. Once the organization has been able to improve the critical shortage of certified RNs to administer systemic cancer treatment, then RPNs should return to supportive care roles as outlined in recommendations 1 - 4.

Recommendations

1. **RNs should continue to be utilized to support toxicity management of patients on active systemic cancer treatment in person and virtually.**

    - While some toxicities are known to be common, the care needs are not well defined and change in the days/weeks after treatment is administered.
    - Toxicities often require close, frequent monitoring and reassessment, in addition to distinguishing patterns separate from symptoms of the disease. The level of assessment required and ability to

[1] *RN and RPN Practice: The Client, the Nurse and the Environment, College of Nurses of Ontario, 2018*

triage urgent or emergent situations, often in isolation from Oncologists, requires a higher level of nursing due to the client complexity and unpredictability.

2. **RNs currently working in other roles in the ambulatory cancer clinic should be re-assigned and utilized to administer systemic treatment.**

    - RNs working in the ambulatory cancer clinic at new consultation appointments, health teaching and well follow-up visits should be shifted to the systemic therapy suites to administer systemic treatment.
    - If not completed or not up to date, the RNs should enroll in standardized education through the recognized ONS/ONCC Chemotherapy Immunotherapy Certificate Course or the de Souza Institute Provincial Standardized Chemotherapy and Biotherapy course (connect with the de Souza institute to request a condensed two-week version of the Provincial Standardized Chemotherapy and Biotherapy Course for RNs and RPNs).
    - A RN should not administer systemic treatment independently until a recognized course and exam are completed. If a recognized standardized education course is not yet in progress, the hiring organization must provide: 1) supplemental training with exam 2) supervised clinical practice until a recognized course can be complete.
    - Please refer to The Systemic Cancer Treatment Administration: Initial and Continuing Competence Standards for Registered Nurses for more detailed information.

3. **RPNs can be utilized in the ambulatory cancer clinics.**

    - RPNs can work in the ambulatory cancer clinics at new consultation appointments, complete symptom assessment, provide health teaching, and at well follow-up visits.
        - RNs should continue to provide patient education for new chemotherapy and biotherapy treatment patients
    - RPNs should complete a Foundations Course reflective of their main role and practice setting in Oncology or Palliative Care by an accredited Provincial College, Pallium Canada, Palliative Pain & Symptom Management Consultation Program of Southwestern Ontario, or the de Souza Institute as soon as possible or have 2 years of recent Oncology experience.
    - Please refer to Position Statements for Nursing Practice in Cancer Care for more detailed information.

4. **RPNs should be utilized in the systemic therapy suite for roles other than systemic treatment administration.**

    - Supportive interventions not directly related to systemic treatment may be administered by RPNs. For example: blood transfusions, hydrations, electrolyte corrections, iron transfusions, vitamin B administration, and blood draws from CVADs for lab work.
        - Please note that it is recommended that these activities move out of the systemic therapy suite to other areas in the hospital. If there are barriers to moving out these activities, then RPNs should be utilized.
    - Supportive interventions directly related to systemic treatment may be performed by RPNs. For example:
        - Taking vitals and conducting assessments of patients

- Initiation, management, and discontinuation of venous access devices (peripheral and central)
- Administration of supportive medications including:
  - pre-medications for systemic treatment (e.g. anti-emetics)
  - treating hypercalcemia or to decrease complications produced by bone metastasis (e.g. zoledronic acid)
  - hormone injections (e.g. fulvestrant, leuprolide)
  - growth factors injections (e.g. filgrastim, pegfilgrastim)

In cases where a critical nursing shortage remains and all recommendations above have been implemented and all supportive roles for RPNs have been maximized, then RPNs can be considered to complement RNs in administration of systemic treatment as per the recommendation below.

5. **RPNs can be utilized to administer some direct, lower complexity systemic treatment activities after RNs have administered the first cycle and if there were no infusion reactions or other complications. RNs certified to administer systemic treatments must be present and available to collaborate with the RPN.**

- There are certain conditions under which RPNs can administer systemic treatment:
  - First cycle administered by RN
  - Regimens with low/no potential of infusion reaction
  - Regimens containing non-vesicant drugs
  - Medical condition of patient is stable
  - Treatments with predictable and manageable immediate responses and low risk of negative outcomes
- Examples of regimens that RPNs can administer in medically stable patients (after RN administered first cycle) are:
  - gemcitabine (when administered as a single agent)
  - maintenance therapies, such as trastuzumab, rituximab and pemetrexed, where multiple cycles have been given with no issue
  - immunotherapy as monotherapy
  - bortezomib injections
  - FOLFIRI
  - bendamustine
  - panitumumab
- RPNs should not administer systemic treatment independently until a recognized course and exam are completed. RPNs can enroll in the ONS/ONCC Chemotherapy Immunotherapy Certificate Course or the de Souza Institute Provincial Standardized Chemotherapy and Biotherapy course (connect with the de Souza institute to request a condensed two-week version of the Provincial Standardized Chemotherapy and Biotherapy Course for RNs and RPNs).
  - Please note that the ONS/ONCC course has always been open to RPNs and that the de Souza course has been opened up to RPNs.

- If a recognized standardized education course is not yet in progress, the hiring organization must provide: 1) supplemental training with exam 2) supervised clinical practice until a recognized course can be completed.
- Please refer to Standard 1.0 and Appendix 1 in The Systemic Cancer Treatment Administration: Initial and Continuing Competence Standards for Registered Nurses for more detailed information.

Appendix B summarizes the roles of RNs and RPNs in ambulatory systemic treatment.

Resources

- Ontario Health – Cancer Care Ontario. Position Statements for Nursing Practice in Cancer Care. 2021. Available from: https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/53531
- Ontario Health – Cancer Care Ontario. Systemic Cancer Treatment Administration: Initial and Continuing Competence Standards for Registered Nurses. 2021. Available from: https://www.cancercareontario.ca/en/system/files_force/derivative/SystemicCancerTreatmentAdminCompetenceStandardsforRNs.pdf
- Ontario Health – Cancer Care Ontario. Oncology Nursing Telepractice Standards. 2019. Available from: https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/60456
- Ontario Health – Cancer Care Ontario. Regional Models of Care for Systemic Treatment: Standards for the Organization and Delivery of Systemic Treatment. 2019. Available from: https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/60086

Recommended Next Steps

Please share this guidance document with relevant stakeholders as appropriate.

For More Information

Should you have any questions regarding this guidance, please feel free to contact:

- Oncology Nursing Program at OH-CCO_nursing@ontariohealth.ca
- Systemic Treatment Program at OH-CCO_STPInfo@ontariohealth.ca

Appendix A: Applying 3 Factor Framework for RPN roles

Client Factors	Nurse Factors	Environmental Factors
• The client needs are known • The intervention is part of an established plan of care • The client's response(s) to the intervention are known, consistent over time or readily anticipated	• The nurse has the necessary knowledge, skill and judgement to safely perform the intervention • The nurse is able to predict and manage the outcomes of their actions and/or the client's response to the intervention	• There are sufficient resources (staff, policies, equipment) in the practice environment to support the client or the nurse if necessary (high ratio of expert RN's) • The resources are readily accessible to the nurse and others
Client	**Nurse**	**Environment**
• Treatments with predictable and manageable immediate responses and low risk of negative outcomes • Signs and symptoms of reactions are obvious	• Recognizes deviations from predicted client response(s) and manages or consults with RN • Provides elements of care for highly complex clients in close consultation with RN directing the client's care	• High proportion of expert, certified RNs or low proportion of novice nurses • Existence of clear policies, procedures, medical directives, protocols, plans of care, care pathways, and assessment tools

Appendix B: Role of RNs and RPNs in Systemic Treatment

	RN	RPN
Outpatient Ambulatory Clinic	• Education for new chemotherapy and biotherapy treatment patients • Symptom management of patients on active treatment (in person or virtually), on clinical trials, and patients with complex needs	• New consultation appointments • Symptom assessment • Health teaching • Well follow-up visits
Systemic Therapy Suite - non Systemic Treatment	• Management of a blocked venous access device (peripheral and central)	• Taking vitals and conducting assessments • Equipment set up (e.g. priming lines) • Initiation, management, and discontinuation of venous access devices (peripheral and central) • Administration of supportive medications including: ▪ pre-medications for Systemic Treatment (e.g. anti-emetics) ▪ treating hypercalcemia or to decrease ▪ complications produced by bone ▪ metastasis (e.g. zoledronic acid) ▪ hormone injections (e.g. fulvestrant, leuprolide) ▪ growth factors (e.g. filgrastim, pegfilgrastim) If unable to move out of systemic therapy suite: • Blood transfusions, hydration, electrolyte correction, iron infusions, Vitamin B • Blood draws from CVADs for lab work • Specimen collection (e.g: urine)
Systemic Therapy Suite – Systemic Treatment	• First cycle of treatment • Regimens with risk of immediate grade 3 or 4 toxicities • Regimens with risk of infusion reactions • Regimens containing vesicants • Regimens with investigational agents • Patients with unstable medical conditions	• Regimens with low/no potential of infusion reaction • Regimens containing non-vesicant drugs • Medical condition of patient is stable • Treatments with predictable and manageable immediate responses and low risk of negative outcomes • Examples of regimens (after RN administered first cycle of treatment): ▪ Gemcitabine (when administered as a single agent) ▪ Maintenance therapies, such as trastuzumab, rituximab and pemetrexed, where multiple cycles have been given with no issue ▪ Immunotherapy as monotherapy ▪ Bortezomib injections ▪ FOLFIRI ▪ Bendamustine ▪ Panitumumab