



Ontario Health
Cancer Care Ontario



Systemic Cancer Treatment Administration: Initial and Continuing Competence Standards for Registered Nurses

Oncology Nursing Program

2021

For information or questions about this report, please contact the Oncology Nursing Program at: OH-CCO_Nursing@ontariohealth.ca.

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Introduction

This document provides standards for the education and training required to attain initial competency and maintenance of competence for registered nurses (RNs) administering systemic cancer treatment¹ in Regional Cancer Programs (RCPs) as a benchmark for excellence in patient safety. It is intended for, but not limited to, all RNs administering parenteral therapy to patients with cancer, regardless of the care setting and their hiring organization. The hiring organization will certify attainment of competency and maintenance of competence, and Regional Cancer Centres (RCCs) may need to support the affiliated sites within their RCP to meet the standards outlined in this document.

Administering systemic cancer treatment, monitoring its impact, and managing related toxicities are highly specialized skills with unpredictable outcomes and require a high degree of critical thinking and autonomous independent assessment and decision-making skills. Ontario Health's (Cancer Care Ontario) Oncology Nursing Program recommendations are aligned with the Canadian Association of Nurses in Oncology (CANO) Standards and Competencies for Cancer Chemotherapy Nursing Practice in that:

- systemic cancer treatments should be delivered by RNs and patients receiving these treatments should receive care from RNs; and
- systemic cancer treatment certification of competency processes include theoretical, clinical, and continuing competence requirements.

Specialized education, preparation, and training of the RN administering systemic cancer treatment ensures a safe level of care for patients receiving, and the RNs administering these agents. All RNs who administer systemic cancer treatment must be aware of the expectations in these standards and will be accountable to meet the requirements of initial certification of competency and ongoing maintenance of competence to their hiring organization. RNs should routinely work towards fulfilling these expectations and track all requirements. To ensure quality practice environments for the care of persons receiving systemic cancer treatment, all organizations should develop appropriate policies, procedures and processes that support the development, attainment and maintenance of competence of RNs administering systemic cancer treatment in alignment with these standards.

¹ Throughout this document, the term systemic cancer treatment refers to parenteral systemic cancer treatment.

Systemic Cancer Treatment Administration: Initial and Continuing Competence Standards for Registered Nurses

Ontario Health's (Cancer Care Ontario) systemic cancer treatment administration standards for initial certification of competency and maintenance of competence consist of:

An initial competency and certification education program that includes:

- theoretical learning with evaluation, and
- supervised clinical practice with evaluation.

Maintenance of competence program that includes:

- self-reflection and professional development, and
- maintenance of knowledge and skill.

Systemic Cancer Treatment Administration: Initial Competency Standards for Registered Nurses

1.0 Initial competency and certification are comprised of an education program that includes:

- theoretical learning with evaluation, and
- supervised clinical practice with evaluation.

1.1 Theoretical learning with evaluation

- All RNs administering systemic cancer treatment to patients with cancer, regardless of setting, should complete standardized education through the recognized de Souza Institute Provincial Standardized Chemotherapy and Biotherapy course or ONS/ONCC Chemotherapy Immunotherapy Certificate Course
- A RN should not administer systemic cancer 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:
 - supplemental training with exam (Appendix 1)
 - supervised clinical practice until a recognized course can be completed

1.2 Supervised clinical practice with evaluation

- The length of the supervised clinical practice component will be determined collaboratively with the RN, manager, and educator based on the RNs professional development needs.
- RNs will complete their clinical practice component with a nurse expert coach/preceptor. Nurse experts as coaches/preceptors will be RNs who have obtained certification of competency, maintained competence to administer systemic cancer treatment as outlined in these standards, and demonstrate specialized knowledge, skill, critical thinking, and clinical judgment in systemic cancer treatment care.
- The clinical practice component will include the completion of a skills competency checklist with minimal requirements outlined in the Ontario Systemic Cancer Treatment Skills Competency Checklist (Appendix 2).

- For each skill competency area, the hiring organization may expand on the description to incorporate local policies and procedures in alignment with [Provincial Systemic Administration Guidelines \(https://www.cancercareontario.ca/en/drug-formulary/drug-safety-information\)](https://www.cancercareontario.ca/en/drug-formulary/drug-safety-information).
- Each skill should be observed, then demonstrated back to the preceptor until the competency has been met.
- A RN who is not working in a Systemic Cancer Treatment Administration Unit (e.g. works in an inpatient setting) and who has not had the opportunity to meet all of the competency standards on the checklist should continue to work with their nurse expert coach/preceptor/educator to ensure opportunities are provided to complete the minimum skills outlined in the Ontario Systemic Cancer Treatment Skills Competency Checklist.
 - Independent work assignments should only include administrations/care for which the RN has met the necessary competency.
 - For any assignment with which the RN has not been previously observed and/or met the competency requirement, the RN should be observed by their nurse expert coach/preceptor.
- The hiring organization will provide education/training on:
 - Local policies/procedures, knowledge, and skills for:
 - systemic cancer treatment drugs and regimens commonly administered
 - systemic cancer treatment administration including skills such as intravenous bolus, continuous infusion, oral, intra-cavitary instillations, intra-arterial, intraperitoneal, subcutaneous or intramuscular injections
 - adverse event and incident reporting
 - documentation of independent double-check
 - systemic treatment extravasation management
 - systemic cancer treatment infusion reaction management
 - safe handling of hazardous medications and associated waste
 - cytotoxic spills management
 - Safe use of equipment, devices and supplies for administration and care, including infusion pumps
 - Venipuncture and general intravenous skills
 - Central and peripherally inserted venous access devices covering:
 - assessment of the access site
 - accessing/de-accessing
 - blood sampling
 - management of CVAD occlusions
 - dressing changes
- The hiring organization will determine and provide education/training on any additional relevant areas.

1.3 Certification of Competency

- Certification of competency is determined and completed by the hiring organization and may be supported by the RCP.
- Certification of competency should include, at minimum, successful completion of:
 - A recognized standardized education course (refer to section 1.1)
 - Observed skills outlined in the Ontario Systemic Cancer Treatment Skills Competency Checklist (Appendix 2)

- Education/training provided by the hiring organization (refer to section 1.2)

Systemic Cancer Treatment Administration: Continuing Competence Standards for Registered Nurses

2.0 Maintenance of competence is comprised of a program that includes:

- self-reflection and professional development; and
- maintenance of knowledge and skill.

2.1 Self-Reflection and Professional Development

- All RNs administering systemic cancer treatment to patients with cancer should complete the [CANO Standards and Competencies for Cancer Chemotherapy Nursing Practice: Self-Assessment Tool \(https://cdn.ymaws.com/www.cano-acio.ca/resource/resmgr/standards/2018CANO_NSCA_Toolkit_V6.pdf\)](https://cdn.ymaws.com/www.cano-acio.ca/resource/resmgr/standards/2018CANO_NSCA_Toolkit_V6.pdf) and the Ontario Systemic Cancer Treatment Skills Competency Self-Assessment Checklist (Appendix 3) annually. Completion of these self-assessments align with the College of Nurses of Ontario Quality Assurance Program; should inform areas for further knowledge acquisition or skills development; and be reflected in the action plan. The hiring organization will determine how to monitor and manage the action plans.
 - In circumstances where a RN has not administered systemic cancer treatment for an extended period of time (e.g., leave of absence, change of jobs) or at any time the RN may question their competence, the CANO Self-Assessment Tool and the Ontario Systemic Cancer Treatment Skills Competency Self-Assessment Checklist should be utilized to assist with determining professional development needs.

2.2 Maintenance of Knowledge and Skill

2.2.1 Maintenance of Competence Courses

- All RNs administering systemic cancer treatment, regardless of setting, should complete an approved maintenance course every 2 years. The approved courses include: de Souza Institute Chemotherapy Competency Maintenance Course and the ONS/ONCC Chemotherapy Immunotherapy Certificate Renewal Course.
- RNs who administer systemic cancer treatment less frequently should arrange for a collaborative meeting with their relevant leader(s) (Educator and/or Clinical leader, and/or Manager) to review their completed self-assessment tools and identified professional development needs annually. Organizations may also choose to meet with the RNs at pre-determined times.
 - RNs who administer less frequently may include those who are casual and are scheduled sporadically; those who have had a decrease in the frequency of their administrations over the past year; or those who have been on a leave of absence.
 - The collaborative meeting provides a review of professional development needs and strategies to address further knowledge acquisition or skills development in the action plan.
 - Opportunities for learning and skills development could include:
 - Assignments with greater opportunities for administration
 - Further mentorship in current setting or in a systemic cancer therapy unit with high volumes of administration opportunities

-
- Utilization of the Ontario Systemic Cancer Treatment Skills Competency Self-Assessment Checklist (Appendix 3) to ensure maintenance of competence

2.2.2 Hiring Organizations

- The hiring organization will provide education/training as required in the following relevant areas:
 - New systemic therapy agents and protocols: Training and education is provided to the RNs before the new agents/protocols are implemented into practice and care.
 - Hazardous drug management: This should include safe handling of drugs and waste, cytotoxic spills cleanup and personal protective equipment (PPE).
 - Equipment: Training and education occurs when new equipment, devices or supplies are introduced, when existing equipment is upgraded, or for RNs who are returning after an extended leave. Competence for using infusion pumps safely is evaluated and documented at least every two years.
 - Symptom/toxicity management: In-services and educational opportunities related to the RNs role within systemic cancer treatment administration and care is provided at minimum twice per year. Selected topics may relate to toxicity assessment and management, Your Symptoms Matter (YSM), Canadian Oncology Symptom Triage and Remote Support (COSTaRS), telepractice, application of National Cancer Institute Common Terminology Criteria for Adverse Events (NCI CTCAE) grading scale.
 - Policies and Procedures: Any updates to provincial or local policies and procedures related to systemic cancer treatment and administration must be communicated to the RNs as they are released.

A summary of the recommended standards can be found in Appendix 4.

References

Accreditation Canada Qmentum, Standards Cancer Care V 12. 2018

Beaver C, Magnan MA, Henderson D, DeRose P, Carolin K, Bepler G. (2016). Standardizing Assessment of Competences and Competencies of Oncology Nurses Working in Ambulatory Care, *Journal for Nurses in Professional Development* 32(2): 64-73.

Cancer Care Ontario Oncology Nursing Program (2018). Position Statement for Nursing Practice in Cancer Care. Available from: <https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/53531>

CANO/ACIO. (2009). National Chemotherapy Administration Nursing Practice Strategy Phase I Final Report, p.24. Vancouver, British Columbia, Canada.

CANO/ACIO (2017). Standards and Competencies for Cancer Chemotherapy Nursing Practice. Available from: https://cdn.ymaws.com/www.cano-acio.ca/resource/resmgr/Resources/EN_CANO_Chemotherapy_Standar.pdf

CANO/ACIO (2017) Standards and Competencies for Cancer Chemotherapy Nursing Practice Toolkit. Available from: https://cdn.ymaws.com/www.cano-acio.ca/resource/resmgr/standards/2018CANO_NSCA_Toolkit_V6.pdf

College of Nurses of Ontario. 2020. 2020 QA Program. Available from: <https://www.cno.org/en/myqa/>

Neuss MN, Gilmore TR, Belderson KM, Billett AL, Conti-Kalchik T, Harvey BE, Hendricks C, LeFebvre K KB, Mangu PB, McNiff K, Olsen M, Schulmeister L, on Gehr A, Polovich M. (2016). 2016 Updated American Society of Clinical Oncology/Oncology Nursing Society Chemotherapy Administration Safety Standards, including Standards for Pediatric Oncology. Available from: <https://onf.ons.org/onf/44/1/2016-updated-american-society-clinical-oncologyoncology-nursing-society-chemotherapy>

Regulated Health Professions Act, 1991, S.O. 1991, c.18.

Ontario Health (Cancer Care Ontario) would like to acknowledge that the Ontario Systemic Cancer Treatment Skills Competency Checklist and Self-Assessment Checklist were adapted based on the skills checklists from the following organizations:

- Brant Community Cancer Clinic Oncology Department Core Competencies, 2015
- Champlain Hazardous Drug Administration Competency Checklist, n.d.
- Erie St. Clair Checklist Package, Sept 2017
- JHCC Program Chemotherapy Practical Experience, June 2012
- Joseph Brant Cancer Clinic RN Chemotherapy Administration Competency Checklist, n.d.
- Kingston Systemic Treatment Program: Systemic Treatment Unit, Inpatient Oncology, Malignant Hematology Day Unit Chemotherapy and Biotherapy Administration Learning Plan, 2020
- Lakeridge Health Systemic Therapy Checklist, n.d.
- London Regional Cancer Centre Chemotherapy Competency Validation Tool, Nov 2020
- Mackenzie Health Hospital Caring for Patients Receiving Chemotherapy and Biotherapy A Guide to Your Clinical Practicum, updated May 2019, original April 2019
- North East Annual Competency Assessment for Hazardous Drug Administration, 2020

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- Nova Scotia Health Authority Cancer Care Program: Administration of Cancer Chemotherapy Maintenance of Competency Checklist, 2011
 - Stronach Regional Cancer Centre Competency Checklist- Registered Nurse, n.d.
 - Sunnybrook Checklist for Administration Intravenous BOLUS Inpatient Chemotherapy, 2020
 - Thunder Bay Regional Health Science Centre-Cancer Care Performance Criteria Administration of Chemotherapy, 2018
 - Trillium Health Partners Chemotherapy Administration Competency Record, n.d.

Appendix 1: Supplemental Training

A RN should not administer systemic cancer therapy independently until a recognized course and exam are completed. During that time the hiring organization must provide:

- supplemental training with exam
- supervised clinical practice until a recognized course can be completed

The education and supplemental training program shall include, at minimum, the following topics:

- a. Principles of systemic cancer treatment, including cancer cell biology, goals of treatment, cellular kinetics of normal and malignant cells, classifications and mechanism of action, drug selection, and standard treatment and research protocols
- b. Assessment of the person receiving systemic cancer treatment and their family
- c. Principles of safe systemic cancer treatment administration by all routes
- d. Principles and requirements for safe handling of systemic cancer treatment agents and related waste
- e. Toxicities, adverse events and infusion reactions associated with systemic cancer treatments, including early identification, ongoing monitoring, and principles of prevention and management of these adverse effects and toxicities
- f. Selection, care and maintenance of vascular access devices
- g. The equipment required for administration including set-up and pump programming/management
- h. Psychosocial oncology care and options and guidelines for interprofessional referrals
- i. Ethical and legal issues associated with the administration of systemic cancer treatment
- j. Organizational processes and available patient education and resources
- k. Documentation

Appendix 2: Ontario Systemic Cancer Treatment Skills Competency Checklist

Registered Nurse _____

Date _____

Evaluator _____

	Skill/Activity	Competence		Comments
		Met	Needs Review	
1	Verifies patient identification following organization's policy on patient identification	<input type="checkbox"/>	<input type="checkbox"/>	
2	Verifies consent has been obtained for treatment to be administered	<input type="checkbox"/>	<input type="checkbox"/>	
3	Completes/reviews pre-treatment nursing assessment/toxicity including past/current history, physical, psychosocial, financial, spiritual, sexual, cultural concerns and learning needs	<input type="checkbox"/>	<input type="checkbox"/>	
4	Ensures required patient education is complete including assessment of learning styles and needs; AND/OR assesses and reinforces previous patient/family education	<input type="checkbox"/>	<input type="checkbox"/>	
5	Reviews patient's allergy history	<input type="checkbox"/>	<input type="checkbox"/>	
6	Verifies physician/Nurse Practitioner order for: <ul style="list-style-type: none"> - appropriate regimen, cycle and specific drug administration details - correct drug, interval, date, dose, route, rate, volume - completes dose calculations; confirms initial BSA or recalculates BSA and all doses or dosage range is appropriate using an approved reference 	<input type="checkbox"/>	<input type="checkbox"/>	
7	Verifies accuracy of information on each drug label with the medication order and documents the check	<input type="checkbox"/>	<input type="checkbox"/>	
8	Investigates any change in drug dose or discrepancy in orders	<input type="checkbox"/>	<input type="checkbox"/>	
9	Verifies lab results are within acceptable treatment parameters and reports to the most responsible physician/NP when they are not	<input type="checkbox"/>	<input type="checkbox"/>	
10	Reviews previous treatment & checks for infusion related reactions	<input type="checkbox"/>	<input type="checkbox"/>	
11	Reviews drug actions, interactions, potential side effects, incompatibilities and any specific monitoring required	<input type="checkbox"/>	<input type="checkbox"/>	
12	Assesses patient for anticipated toxicities associated with each drug and documents appropriately	<input type="checkbox"/>	<input type="checkbox"/>	
13	Assesses appropriateness of pre-medication and/or pre-hydration ordered	<input type="checkbox"/>	<input type="checkbox"/>	

14	Identifies vesicant/irritants and: a) educates patient on risks of extravasation as applicable and signs/symptoms to report b) verbalizes steps to prevent and take in the event of a potential or actual extravasation c) knows where the extravasation kit/supplies are located d) provides patient with instructions for care at home e) determines sequencing of drugs f) verbalizes interventions for flare	<input type="checkbox"/>	<input type="checkbox"/>	
15	Identifies drugs for possible anaphylactic reaction and a) prepares for reaction with emergency equipment/hypersensitivity kit readily available b) verbalizes appropriate actions in the event of hypersensitivity reaction	<input type="checkbox"/>	<input type="checkbox"/>	
16	Wears PPE and applies safety principles for handling and administering cancer systemic treatment drugs and cytotoxic wastes	<input type="checkbox"/>	<input type="checkbox"/>	
17	Determines method and route of administration	<input type="checkbox"/>	<input type="checkbox"/>	
18	Initiates peripheral IV or CVAD access	<input type="checkbox"/>	<input type="checkbox"/>	
19	Selects appropriate IV tubing and equipment for protocol, sets up administration equipment, and programs pump accurately	<input type="checkbox"/>	<input type="checkbox"/>	
20	Ensures independent double-check is completed and documented including verifying accuracy of patient and drug information, pump programming and patient identification	<input type="checkbox"/>	<input type="checkbox"/>	
21	Inspects systemic cancer treatment admixture for expiry date, compatibility, particulate matter or contamination	<input type="checkbox"/>	<input type="checkbox"/>	
22	Administers systemic cancer treatment safely as per policy/procedure ensuring: a) verified blood return and venous patency before administering all drugs b) appropriate monitoring as per drug/protocol requirements c) appropriate drug sequencing is followed d) adequate flushing between drugs and post systemic treatment (minimal fluid to be the volume of the length of the tubing)	<input type="checkbox"/>	<input type="checkbox"/>	
23	Verbalizes the procedure for accidental exposure	<input type="checkbox"/>	<input type="checkbox"/>	
24	Knows the location of and verbalizes how to use the eye wash stations and spill kits	<input type="checkbox"/>	<input type="checkbox"/>	
25	Documents assessment and drug administration according to policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>	

Appendix 3: Ontario Systemic Cancer Treatment Skills Competency Self-Assessment Checklist

Annual self-reflection should include completion of CANO’s [Standards and Competencies for Cancer Chemotherapy Nursing Practice: Self-Assessment Tool](https://cdn.ymaws.com/www.cano-acio.ca/resource/resmgr/standards/2018CANO_NSCA_Toolkit_V6.pdf) (https://cdn.ymaws.com/www.cano-acio.ca/resource/resmgr/standards/2018CANO_NSCA_Toolkit_V6.pdf)

and the Ontario Systemic Cancer Treatment Skills Competency Self-Assessment Checklist

Use your completed self-assessment tools to build your annual “maintenance of competence” action plan. Refer to section 2.1 for more information.

	Skill/Activity	Self-Assessment	
		I am confident with my competence	My confidence could be improved – needs review/practice
1	I verify patient identification following my organization’s policy on patient identification	<input type="checkbox"/>	<input type="checkbox"/>
2	I verify consent has been obtained for treatment to be administered	<input type="checkbox"/>	<input type="checkbox"/>
3	I complete/review pre-treatment nursing assessment/toxicity including past/current history, physical, psychosocial, financial, spiritual, sexual, cultural concerns and learning needs	<input type="checkbox"/>	<input type="checkbox"/>
4	I ensure required patient education is complete including assessment of learning styles and needs; AND/OR assess and reinforce previous patient/family education	<input type="checkbox"/>	<input type="checkbox"/>
5	I review patient’s allergy history	<input type="checkbox"/>	<input type="checkbox"/>
6	I verify physician/Nurse Practitioner order for: <ul style="list-style-type: none"> - appropriate regimen, cycle and specific drug administration details - correct drug, interval, date, dose, route, rate, volume - complete dose calculations; confirm initial BSA or recalculate BSA and all doses or dosage range is appropriate using an approved reference 	<input type="checkbox"/>	<input type="checkbox"/>
7	I verify accuracy of information on each drug label with the medication order and document the check	<input type="checkbox"/>	<input type="checkbox"/>
8	I investigate any change in drug dose or discrepancy in orders	<input type="checkbox"/>	<input type="checkbox"/>
9	I verify lab results are within acceptable treatment parameters and report to the most responsible physician/NP when they are not	<input type="checkbox"/>	<input type="checkbox"/>
10	I review previous treatment & check for infusion related reactions	<input type="checkbox"/>	<input type="checkbox"/>
11	I review drug actions, interactions, potential side effects, incompatibilities and any specific monitoring required	<input type="checkbox"/>	<input type="checkbox"/>

12	I assess patient for anticipated toxicities associated with each drug and document appropriately	<input type="checkbox"/>	<input type="checkbox"/>
13	I assess appropriateness of pre-medication and/or pre-hydration ordered	<input type="checkbox"/>	<input type="checkbox"/>
14	I identify vesicant/irritants and: <ul style="list-style-type: none"> a. educate patient on risks of extravasation as applicable and signs/symptoms to report b. know the steps to prevent and take in the event of a potential or actual extravasation c. know where the extravasation kit/supplies are located d. provide patient with instructions for care at home e. determine sequencing of drugs f. know interventions for flare 	<input type="checkbox"/>	<input type="checkbox"/>
15	I identify drugs for possible anaphylactic reaction and <ul style="list-style-type: none"> a. prepare for reaction with emergency equipment/hypersensitivity kit readily available b. know the appropriate actions in the event of hypersensitivity reaction 	<input type="checkbox"/>	<input type="checkbox"/>
16	I wear PPE and apply safety principles for handling and administering cancer systemic treatment drugs and cytotoxic wastes	<input type="checkbox"/>	<input type="checkbox"/>
17	I determine method and route of administration	<input type="checkbox"/>	<input type="checkbox"/>
18	I initiate peripheral IV or CVAD access	<input type="checkbox"/>	<input type="checkbox"/>
19	I select appropriate IV tubing and equipment for protocol, set-up administration equipment, and program pump accurately	<input type="checkbox"/>	<input type="checkbox"/>
20	I ensure independent double-check is completed and documented including verifying accuracy of patient and drug information, pump programming and patient identification.	<input type="checkbox"/>	<input type="checkbox"/>
21	I inspect systemic cancer treatment admixture for expiry date, compatibility, particulate matter or contamination	<input type="checkbox"/>	<input type="checkbox"/>
22	I administer systemic cancer treatment safely as per policy/procedure ensuring: <ul style="list-style-type: none"> a. verified blood return and venous patency before administering all drugs b. appropriate monitoring as per drug/protocol requirements c. appropriate drug sequencing is followed d. adequate flushing between drugs and post systemic treatment (minimal fluid to be the volume of the length of the tubing) 	<input type="checkbox"/>	<input type="checkbox"/>
23	I know the procedure for accidental exposure	<input type="checkbox"/>	<input type="checkbox"/>
24	I know the location of and verbalize how to use the eye wash stations and spill kits	<input type="checkbox"/>	<input type="checkbox"/>
25	I document assessment and drug administration according to policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>

Action Required

Use your completed self-assessment tools to build your annual “maintenance of competence” action plan. You may need to discuss completing some strategies with your relevant department leader to achieve the goals in your action plan. Refer to section 2.1 for more information.

For nurses who administer less frequently, use this self-assessment to guide the discussion and the development of your action plan during your annual collaborative meeting. Refer to section 2.2.1 for more information.

Appendix 4: Summary of Systemic Cancer Treatment Administration: Initial and Continuing Competence Standards for Registered Nurses

Initial Competency Standards for Registered Nurses	
Components	To Attain Initial Competency
Initial Theoretical Course ¹ de Souza or ONS/ONCC	✓
Supervised Clinical Practice with nurse expert coach/preceptor ²	✓
Demonstration of skills competency with minimal requirements outlined in the Ontario Systemic Cancer Treatment Skills Competency Checklist ³	✓
Organization-Led Additional Training and Education⁴	
Local policies/procedures, knowledge, and skills for areas outlined	✓
Safe use of equipment, devices and supplies for administration and care, including infusion pumps	✓
Venipuncture and general intravenous skills	✓
Central and peripherally inserted venous access device knowledge and skills areas	✓

¹ Recognized initial competency courses include de Souza Institute Provincial Standardized Chemotherapy and Biotherapy course or ONS/ONCC Chemotherapy Immunotherapy Certificate Course

² Length of supervised clinical practice, qualities of nurse expert coach/preceptor, and components of the clinical practice training are outlined in section 1.2

³ The Ontario Systemic Cancer Treatment Skills Competency Checklist (Appendix 2)

⁴ The hiring organization will provide education/training on required relevant areas outlined in section 1.2

Maintenance of Competence Standards for Registered Nurses		
Components	Regular Systemic Treatment Administration	Less Regular Systemic Treatment Administration ¹
Self-Assessment & Professional Development		
CANO's Self-Assessment Tool ² + Ontario Systemic Cancer Treatment Skills Competency Checklist with Action Plan	✓	✓
Maintenance Course ³ de Souza or ONS	✓ Q 2 years	✓ Q 2 years
RN/Leader Collaborative Review		✓
Organization-Led Education Review⁴		
New agents & protocols	✓	✓
Hazardous drug management (including safe handling, disposal, spills)	✓	✓
Equipment	✓	✓
SM/Toxicity Education	✓	✓
P&P Review +/- updates	✓	✓

Notes: The standards presented are annual expectations unless stated otherwise.

¹ Less frequent administration may include those who are casual and are scheduled sporadically; those who have had a decrease in the frequency of their administrations over the past year; or those who have been on a leave of absence (refer to section 2.2.1)

² Self-Assessment and Continuing Education

- a. The de Souza Institute course embeds CANO's Self-Assessment Tool, thus not required when completed with this course.
- b. ONS does not include a self-reflection component, thus RNs would need to complete CANO's Self-Assessment Tool in addition to the course

³ The approved courses include: de Souza Institute Chemotherapy Competency Maintenance Course and the ONS/ONCC Chemotherapy Immunotherapy Certificate Renewal Course (refer to section 2.2.1)

⁴ Organization-Led Education Review (refer to section 2.2.1)

- a. New agents & protocols: Training and education is provided to the RNs before the new agents/protocols are implemented into practice and care.
- b. Equipment: Training and education occurs when new equipment, devices or supplies are introduced, when existing equipment is upgraded, or for RNs who are returning after an extended leave. Competence for using infusion pumps safely is evaluated and documented at least every two years. Competence for using infusion pumps safely is evaluated and documented at least every two years.
- c. Symptom/toxicity management: In-services or educational opportunities related to the RNs role within systemic cancer therapy administration and care is provided at minimum twice per year. Selected topics may relate to toxicity assessment and management, Your Symptoms Matter (YSM), Canadian Oncology Symptom Triage and Remote Support (COSTaRS), telepractice, application of National Cancer Institute Common Terminology Criteria for Adverse Events (NCI CTCAE) grading scale.
- d. Policies and Procedures: Any updates to provincial or local policies and procedures related to systemic cancer treatment and administration must be communicated to RNs as they are released.