



Pediatric Chemotherapy Administration Standards and Competencies for Practice and Education (Atlantic Provinces Pediatric Hematology Oncology Network [APPHON]/ Réseau d'Oncologie Hématologie Pédiatriques des Provinces Atlantiques [ROHPPA])

Purpose

To ensure competency of the Registered Nurse administering pediatric chemotherapy/biotherapy in the Atlantic Provinces.

Background

The Association of Pediatric Hematology/Oncology Nurses (APHON) states that safe, competent, and consistent administration of chemotherapy and biotherapy to children and adolescents requires specific knowledge and specialized skills (2019). APHON has developed and maintained a curriculum for pediatric oncology Registered Nurses (RNs), with the overall objective to establish international education and practice standards. The APHON Standard of Practice is: *chemotherapy and biotherapy administered to children and adolescents must be provided by RNs who have completed the APHON Chemotherapy and Biotherapy Provider Course and a clinical practicum (APHON, 2019).*

APPHON/ROHPPA has adopted The Canadian Association of Nurses in Oncology/L'Association Canadienne des Infirmières en Oncologie (CANO/ACIO) Standards and Competencies for Cancer Chemotherapy Nursing Practice (2017).

CANO/ACIO has developed a *National Strategy for Chemotherapy Administration (Toolkit)* that includes standards and competencies for an RN working in oncology. The CANO Standards and Competencies document is recommended for both pediatric and adult based practice.

Therefore, APPHON/ROHPPA chemotherapy administration standards and requirements will reflect both CANO's and APHON's standards and requirements.

APPHON/ROHPPA Chemotherapy Administration* Standards for Practice and Education

Standard:

Chemotherapy and biotherapy administered to children and adolescents in the Atlantic Provinces will be provided by Registered Nurses who have completed the APHON Chemotherapy and Biotherapy Provider Program, have demonstrated clinical competency, and maintained knowledge and competency according to APPHON/ROHPPA specifications.

Competency Requirements

- 1.a** The nurse will demonstrate **knowledge competency** by successful completion of the APHON Pediatric Chemotherapy and Biotherapy Provider Program. Upon successful completion of the program the RN will be considered a Pediatric Chemotherapy and Biotherapy Provider (APHON, 2019).
- 1.b** The nurse will demonstrate **continuing knowledge competency** by:
- Maintaining their status as an APHON Pediatric Chemotherapy and Biotherapy Provider by reviewing the updates and successful completion of an online written exam two years following initial completion. Subsequent renewals are required every three years.
 - Participating in continuing education specific to care of a child or adolescent with cancer including administration of chemotherapy and biotherapy is recommended. This could include, but is not limited to, participation in oncology related in-services, workshops, conferences, committees and associations, completion of oncology certification or oncology related university credits, and completion of self learning projects such as oncology related self learning packages, and video or article reviews.
- 2.a** The nurse will demonstrate **initial clinical competency** in administering chemotherapy/biotherapy by:
- Successful completion of **at least three supervised** chemotherapy administrations**, to a child, adolescent or adult. Clinical competency must be reflective of the level of care the nurse will provide at their institution (APPHON/ROHPPA Levels of Care Approach, 2021), and local institutional policies.
The APPHON/ROHPPA *Pediatric Chemotherapy Administration Clinical Competency Checklist* will be used to assess initial chemotherapy/biotherapy administration competencies. Additional learning opportunities may be required to meet all clinical competencies.
 - A nurse who will administer **peripheral vesicants**, either by IV infusion or IV push, must have an **additional supervision** of a peripherally administered vesicant.

Supervision must be by a competent chemotherapy administration supervisor** at the nurse's institution (or a designated provincial or intraprovincial supervisor). Competency will be assessed using the APPHON/ROHPPA *Pediatric Chemotherapy Administration Clinical Competency Checklist*.

**** A competent chemotherapy provider or administration supervisor-** An RN who has current knowledge and clinical competence to administration pediatric chemotherapy based on the above standards and has at least two years of chemotherapy administration experience.

Note: It is recognized that some centres have institutional policies that limit who may administer any peripheral or any intravenous push antineoplastic medications, or may require additional supervision of the nurse.

2.b The nurse will demonstrate **continuing clinical competency** by:

- Each nurse will maintain a record of administrations and achieve a minimum of 20 administrations in a 2-year period, preferably at regular intervals. Administrations may be to a child, adolescent **or adult**.
- Both the nurse and their manager (or designate) must keep administration tracking records.

If a nurse has been unable to maintain the demonstration of clinical skills due to low chemotherapy administration volume or other reasons, they may again demonstrate clinical competency by successful completion of at least three supervised chemotherapy administrations as described in 2a. Clinical competency must be reflective of the level of care the nurse will provide at their institution (APPHON/ROHPPA Levels of Care Approach 2021), and local institutional policies.

Dose adjustment of oral chemotherapy is a Beyond Entry Level Competency. **Only nurses at a subspecialty level who have completed the Beyond Entry Level Competency (BELC) learning program** and have maintained the BELC certification, [or a pediatric oncologist, subspecialty oncology clinical pharmacist, or subspecialty oncology nurse practitioner (IWK Health Centre, Halifax)], may make oral dose modifications for chemotherapy.

Competency Documentation: Health Centres that provide pediatric chemotherapy administration are expected to maintain documentation of the APHON provider status/renewal and competency achievement/maintenance of all staff who administer chemotherapy/biotherapy.

Definitions

* **Chemotherapy Administration** – refers to the whole process of providing chemotherapy to a patient. This includes: patient assessment, education, checking, administering, and safe handling of the agent as well as the ongoing monitoring of the patient while the medication is infusing.

**** Competent chemotherapy administration supervisor** – a nurse who has completed the APHON Pediatric Chemotherapy Biotherapy Provider Program and has demonstrated current clinical and knowledge competency, and has at least 2 years of chemotherapy administration experience.

References

Association of Pediatric Hematology Oncology Nurses (APHON) (2019). The pediatric chemotherapy and biotherapy curriculum. 4th ed.

Association of Pediatric Hematology Oncology Nurses (APHON), (2014). Scope and Standards of Pediatric Hematology/Oncology Nursing Practice.

APPHON/ROHPPA (2021). Levels of Care Approach for Hematology/ Oncology Care of Adolescents and Children within the Atlantic Provinces

APPHON/ROHPPA *Pediatric Chemotherapy Administration Clinical Competency Checklist* (2023).

Canadian Association of Nurses in Oncology/Association Canadienne des Infirmières en Oncologie (CANO/ACIO) (2018). National Strategy for Chemotherapy Administration: Standards and Competencies for Cancer Chemotherapy Nursing Practice. http://www.cano-acio.ca/~ASSETS/DOCUMENT/NSCA/CANO_Chemotherapy_Standards_ENG_Oct%202012.pdf

Canadian Association of Nurses in Oncology/Association Canadienne des Infirmières en Oncologie (CANO/ACIO) (2017). National Strategy for Chemotherapy Administration: Standards and Competencies for Cancer Chemotherapy Nursing Practice Tool Kit. http://www.cano-acio.ca/~ASSETS/DOCUMENT/CANO_NSCA_Toolkit_ENG_Oct%202012_Nov%2026_V2.pdf