

Pediatric Oncology Care: Competency Standards for Safely Administering Hazardous Drugs including Chemotherapy & Biotherapy Agents in Community Settings

Background:

The level of pediatric cancer care provided throughout the province is delineated by Child Health BC [Children's Cancer Services: Tiers to Support System and Operational Planning](#). BC Children's Hospital (BCCH) and the Provincial Pediatric Oncology Hematology Network (POHN) partner with Tier 3-5 sites to facilitate integrated care and increased pediatric oncology services closer to home. These competency standards relate to pediatric nurses in Tier 4 & 5 centers. The pediatric oncology population can also be cared for at BC Cancer Tier 3 Community Oncology Network (CON) adult clinics when appropriate.

Competencies:

In Tier 4 & 5 pediatric cancer service centers, nurses are expected to demonstrate proficiency in administering hazardous drugs, including chemotherapy and biotherapy agents, to pediatric oncology patients safely. To achieve this, the nurse is required to:

- Demonstrate understanding of pediatric cancer diagnosis and treatment, including hematopoiesis and immune response, treatment modalities, and psychosocial issues through education and experience.
- Familiarize themselves with actions, administration guidelines, and adverse effects of hazardous drugs as outlined in the parenteral drug monograph and other institutional resources.
- Possess knowledge of safe handling guidelines for Hazardous Drugs and waste products.
- Educate patients and families about their diagnosis, treatment, and the cancer experience.
- List and describe chemotherapy and biotherapy agents, including classifications, mode of action, administration considerations, toxicity, symptom management, and late effects.
- Provide patient and family education regarding adverse effects and their management.
- Describe clinical trials and the role of the Children's Oncology Group.
- Achieve a score of 80% or higher on the written review questions upon completion of the didactic portion of the course.

These competencies can be attained through the following:

- Participation in a three-day Advanced Oncology Workshop covering Principles of Chemotherapy and Research Protocols.
- Successful completion of a written exam with a score exceeding 80% after the workshop.
- Completion of the Hazardous Drug Learning Hub Curriculum (#27287)
- Engagement in a two-day clinical preceptorship at the BCCH oncology clinic except for nurses from Victoria General Hospital who complete their own site validation.
- Additionally, it is recommended that the employer provide a clinical practicum or preceptorship to validate the nurse's clinical skills in administering hazardous drugs including chemotherapy and biotherapy specific to their work site with a clinical leader possessing current competency.
 - a. **Rationale:** The course is designed to provide nurses with the knowledge base needed to safely care for children, adolescents and young adults receiving hazardous drugs including chemotherapy and biotherapy. A clinical practicum specific to their work site is highly recommended as the clinical preceptorship at BCCH uses specific policies, charting system and chemotherapy and biotherapy administration that differ

throughout the province. Coordination for the practicum should be facilitated by the site clinical leader possessing current competency (i.e., Nurse Clinician).

Continuing Competency Requirements:

Continuing competency entails the continuous integration of knowledge, skills, judgment, and attitudes essential to uphold professional practice standards within one's specific role and practice setting. Given the diverse scope of practice among nurses caring for pediatric oncology patients across the province, it is imperative for each nurse to discern their ongoing learning requirements, particularly concerning the hazardous drugs and biotherapy agents administered in their practice setting. The nurses are expected to conduct an annual self-assessment on the above stated competencies as well as the following:

- Review the Basics of Chemotherapy document yearly (see Appendix II).
- Understand and adhere to institutional policies for completing a chemotherapy/biotherapy checklist, medication administration, independent double checks for high alert medications, and administration of hazardous drugs.
- Clinical application of these competencies in your practice setting, when possible, based on patient census.

Annually, the POHN lead will request a list of competent nurses from each provincial site.

Competency Lapse:

For registered nurses whose competency has lapsed or who would like a review, after previously completing the Advanced Oncology Workshop/Association of Pediatric Hematology/Oncology Nurses (APHON) provider course, a one-day virtual review course covering the Principles of Chemotherapy/Biotherapy and Research Protocols will be hosted by the POHN Lead. Clinical leaders can coordinate with the POHN lead to identify nurses requiring competency renewal. The review courses will be scheduled to accommodate multiple participants if time allows. Attendance and time to attend the review course should be approved by the nurse's supervisor.

The content of the review course is designed to provide nurses with the knowledge base necessary to safely care for children, adolescents, and young adults receiving hazardous drugs and biotherapy. Additionally, nurses are required to complete a clinical practicum specific to their work site to ensure practical application of the learned principles. Coordination for the practicum should be facilitated by the clinical leader at their site possessing current competency to validate their skill set (i.e., Nurse Clinician).

Community Oncology Network Clinics:

For registered nurses employed within a Tier 3 CON clinic, holding a current BC Cancer Systemic Therapy Education Program certification, and tasked with providing care to pediatric oncology patients, the necessity for a separate pediatric course is waived. However, due to the adult focused care provided and to increase confidence providing care for the pediatric population, a virtual instructional session is available upon request.

The primary aim of the course is to provide an overview of pediatric oncology, common diagnoses, chemotherapy and biotherapy, and research protocols. Clinical leaders can coordinate with the POHN lead to identify nurses for the instructional session. The review session will be scheduled to accommodate multiple participants, particularly in instances involving a new patient intake to the CON clinic. Attendance and time to attend should be approved by the respective nurse's supervisor.

Appendix I:

BCCH policies linked below as a reference:

- [Shared Health Organizations Portal \(SHOP\)](#)
- [Completing the Chemotherapy Checklist](#)
- [Medication Administration Policy Independent Double Check for Medication Administration Policy](#)
- [Hazardous Drugs: Handling Precautions](#)
- [Central Line Care videos for nurses](#)
- [Central Venous Line \(CVL\) Dressing Change](#)
- [Heparin Locking CVL](#)
- [Changing the needleless connector on a CVL](#)
- [Accessing, dressing and de-accessing an implanted port](#)
- [Assessment and vascular care chart](#)

Please note: The above information, i.e., guidelines, educational materials, policy, or procedure, etc. have been developed for use only within BCCH. There are support systems at BCCH that may not exist in other clinical settings and therefore any adoption of these materials cannot be the responsibility of BCCH. Agencies other than BCCH should use this information as a guideline for reference purposes only. These documents do not replace institutional or health authority materials. All materials are the property of BCCH and may only be reprinted in whole or in part with our expressed permission.

Appendix II:
[Basics of Chemotherapy Document](#)

Developed By: Pediatric Oncology Hematology Network Lead

Version History:

DATE	DOCUMENT TITLE	ACTION TAKEN
December 2021	Competencies relating to administering cytotoxic and biotherapy agents to pediatric oncology patients for pediatric nurses in community hospitals (Tiers 4/5)	
August 2024	Pediatric Oncology Care: Competency Standards for Safely Administering Hazardous Drugs including Chemotherapy & Biotherapy Agents in Community Settings	Approved at T8 Quality of Care Committee