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Position Statement on Cancer Chemotherapy Administration and Care

This document presents CANO/ACIO's position, based on best evidence, for the provision of care to persons receiving cancer chemotherapy. The statement includes CANO/ACIO's position regarding the high risk nature of cancer chemotherapy, the minimum nursing education required, the meaning of competency, and the responsibilities of health-care systems to provide a supportive environment. CANO/ACIO acknowledges that cancer chemotherapy is administered in a variety of settings ranging from large tertiary oncology centers to patients' homes to other ambulatory out-patient settings. While each of these settings is unique, the evidence-based principles found in the *CANO/ACIO Standards and Competencies for Cancer Chemotherapy Care* (CANO/ACIO, 2010), apply. Other areas of practice, outside the scope of oncology, where cancer chemotherapy drugs are used will also benefit from these standards.

Background

CANO/ACIO's mission is to lead nursing excellence in cancer control for Canadians. The vision is to be the nursing leader in cancer control nationally and a vital influence internationally. Established in 1984, CANO/ACIO is a volunteer member-driven association that supports Canadian oncology nursing excellence in clinical practice, education, research, and leadership. One of the association's major priorities and accomplishments has been to identify standards of care for oncology patients. More recently, CANO/ACIO developed the National Strategy for Chemotherapy Administration (NSCA), a three-phased initiative that seeks to establish national chemotherapy administration and care standards, competencies and educational resources for oncology nurses across Canada

The early phases of the NSCA included a national and international chemotherapy-nursing environmental scan, literature review and focus-groups ([CANO/ACIO, NSCA Phase I, 2009](#)). The consensus -building approach, validated in the literature, (Cox Macpherson, 2002; 2007; Davis, Turner, Hicks, & Tipson, 2008; Jacobson, Polovich, McNiff, LeFebvre, Cummings, Galioto, et. al., 2009; Koldsgaard, Crooks, & Durrant, 2008; and. Riehle, Hanold, Sprenger, & Loeb, 2007) has been used to develop the CANO/ACIO document detailing the standards and competencies.

Position Statement #1

Cancer chemotherapy care is high risk and complex

Cancer chemotherapy encompasses cytotoxic, cytostatic and biologic agents used to modify the body's response to malignant disorders. These agents can be highly toxic and present specific risks for patients, health care providers, and caregivers. As such, the care of patients receiving these drugs requires specific knowledge, skill, and judgment within an environment that supports quality practice.

Position Statement #2

Cancer chemotherapy should be delivered by Registered Nurses and patients receiving chemotherapy for the treatment of cancer should receive care from Registered Nurses.

Patients receiving chemotherapy have unpredictable outcomes. Complex patients with unpredictable outcomes fall under the domain of Registered Nurses (College of Nurses of Ontario, 2009, p. 1). In addition to the nature of the patient and of chemotherapy-care, many oncology nurses work in isolated settings where immediate and consistent support of experts is not standard. Telephone triage of patients is an integral component of most oncology out-patient chemotherapy practice and also requires in-depth, independent assessment, and decision-making abilities.

Nursing practices with unpredictable outcomes and a high degree of autonomy fall outside the level of judgment and critical thinking expected of Registered Practical Nurses or Licensed Practical Nurses (CNO, 2009 p. 11). Therefore, CANO/ACIO believes that the designation Registered Nurse is the minimum foundation required to provide cancer chemotherapy-care. This belief aligns with chemotherapy practice statements adopted by other national oncology nursing organizations (such as the Cancer Nurses Society of Australia and, in the USA, the Oncology Nursing Society), with national standards for safe medication administration (Canadian Partnership against Cancer), and with Canadian safety initiatives (Accreditation Canada).

The American Society of Clinical Oncology and Oncology Nursing Society (2000) state "only qualified physicians, physician assistants, advanced practice nurses or registered nurses administer chemotherapy" (Jacobson, Polovich, McNiff, LeFebvre, Cummings, Galioto, et al., 2009, p. 4).

Position Statement #3

Specific knowledge and skills are required by Registered Nurses before administering or providing care to persons receiving cancer chemotherapy

Based on cancer chemotherapy best practices as defined by international oncology nursing organizations, CANO/ACIO believes that the education program for Registered Nurses preparing to care for persons receiving cancer chemotherapy includes theoretical, clinical, and continuing competency components.

The theoretical component should include, at a minimum, current and evidence-based content regarding:

- a. Principles of cancer chemotherapy, 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 cancer chemotherapy and their family.
- c. Principles of safe chemotherapy administration by all routes.
- d. Principles and requirements for safe handling of cancer chemotherapy agents and related waste.
- e. Toxicities, side effects, and adverse events associated with cancer chemotherapy:
 - i. Early identification
 - ii. Ongoing monitoring
 - iii. Principles of prevention and management
- f. Selection, care, and maintenance of vascular access devices.
- g. The use of mechanical devices required for care, such as ambulatory infusion pumps.
- h. Psychosocial oncology care and guidelines for inter-professional referrals.
- i. Ethical and legal issues associated with the administration of cancer chemotherapy.
- j. Organizational processes, client education and resources.
- k. Documentation

The clinical component of the education program should include clinical practice supported and evaluated by experienced oncology nurses. When these elements are not locally available, supportive agencies provide access to appropriate resources, including mentors.

Registered Nurses providing cancer chemotherapy-care should demonstrate evidence of ongoing learning. Employing health care agencies are responsible to support ongoing education and provide continuing competency criteria that are understandable, realistic to achieve, valid, reliable, measurable,

and actionable. These criteria should be developed in accordance with the organizations' specific policies and procedures and with provincial and national standards of practice.

Demonstration of competency may include self-reflection, journaling and/or assessment by peers, educators or administrators. Multiple perspectives on performance, generating an overall formative and summative assessment, improve validity.

A variety of established oncology programs provide comprehensive education for specialized Oncology Nurses described in the *CANO/ACIO Standards and Competencies for the Specialized Oncology Nurse* (CANO/ACIO, 2006). CANO/ACIO also supports the Canadian Nurses Association (CNA) certification in oncology as a means of promoting oncology nursing expertise.

Summary

Cancer chemotherapy administration and care requires specific knowledge, skill, and judgment within an environment that supports quality practice. CANO/ACIO recommends that all patients receive cancer chemotherapy from Registered Nurses who have completed an additional education program designed to meet a pre-determined standard of practice and who demonstrate ongoing competency. CANO/ACIO recognizes that the responsibility for a supportive environment and adequate education is the responsibility of the employing agency. CANO/ACIO advocates for nurses providing care for cancer patients across Canada by promoting evidence-based education programs and national collaboration. CANO/ACIO promotes collaboration through working groups with national representation, national conferences, and a peer reviewed professional journal, *The Canadian Oncology Nursing Journal (CONJ)*.

Oncology nurses from across Canada participated in the writing of this position statement and the *CANO/ACIO Standards and Competencies for Cancer Chemotherapy Care (CANO/ACIO, 2010)*.

References:

ASCO/ONS (2009). Standards for Safe Chemotherapy Administration: Public Comment Version, January 27, 2009.

Canadian Association of Nurses in Oncology/ Association canadienne des infirmières en oncologie (CANO/ACIO) (1995). Standards for Nursing Practice and Education Related to the Administration of Cancer Chemotherapy.

CANO/ACIO (2010). Rationale for Standards of Care, Retrieved from August 20, 2010, www.cano-acio.ca

CANO/ACIO (2008) Developing a National Strategy for Chemotherapy Administration, September 2008.

- CANO/ACIO (2009). National Strategy for Chemotherapy Administration Phase I Final Report.
- CANO/ACIO (2009). Final Report Ready for Phase II: Preparing for an Invitational National Strategy for Chemotherapy Administration Workshop, November 16, 2009
- Canadian Nurses Association (2000). A National Framework for Continuing Competence Programs for Registered RNs. Retrieved on June 28, 2010 from: <http://www.cna-aiic.ca/CNA/documents/pdf/publications/>. National_Framework_Continuing_Competence_e.pdf, Ottawa
- CNA/Canadian Association of Schools of Nursing, (2004). Joint Position Statement: Promoting Continuing Competence for Registered Nurses.
- Cancer Nurses Society of Australia, (2003). Position Statement on the Minimum Education and Safety Requirements for Nurses Involved in the Administration of Cytotoxic Drugs.
- CNO (2009). Practice Guideline: Utilization of RNs and RPNs. Retrieved July 15, 2010 from CNO website: <http://www.cno.org/>.
- Davis, R., Turner, E., Hicks, D. & Tipson, M. (2008). Developing an integrated career and competency framework for diabetes nursing. *Journal of Clinical Nursing*, 17 (2), 168-174.
- Jacobson J. O., Polovich, M. McNiff, K. K., LeFebvre, K. B. Cummings, C. Galioto, M., Bonelli, K. R., McCorkle, M. R. (2009). American Society of Clinical Oncology/Oncology Nursing Society Chemotherapy Administration Safety Standards, *Journal of Clinical Oncology*, published online September 28, 2009 by American Society of Clinical Oncology.
- Koldsgaard, M. Crooks, D. & Durrant, M. (2008). Innovations in nursing education: Standards development for nurse educator practice. *Journal of Nurses in Staff Development*, 24, 119-123.
- Macpherson, C. (2004). To strengthen consensus, consult the stakeholders. *Bioethics*, 18, 283-292.
- Oncology Nursing Society (ONS) (2005). Biotherapy and Chemotherapy Course, Retrieved from <http://www.ons.org/CNECentral/Chemo/Main>, August 23, 2010
- ONS. Position Statement: Education of the RN Who Administers and Cares for the Individual Receiving Chemotherapy and Biotherapy ONS. Position Statement: Oncology Services in the Ambulatory Practice Setting Retrieved from: www.ons.org/Publications/Positions/Ambulatory August 23, 2010/
- ONS (2007), Clinical Guide to Antineoplastic Therapy: A Chemotherapy Handbook.
- Riehle, A., Hanold, L., Sprenger, S. & Loeb, J.M. (2007). Specifying and standardizing performance measures for use at a national level: Implication for nursing-sensitive care performance measures. *Medical Care Research and Review*, 64, (Suppl.) 64s-81s.