NSCA SNAC

National Strategy For Chemotherapy Administration
Stratégie Nationale pour l'Administration de la Chimiothérapie

Standards and Competencies for Cancer Chemotherapy Nursing Practice

CANO ACIO

Canadian Association of Nurses in Oncology
Association canadienne des infirmières en oncologie

TOOLKIT

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DISCLAIMER

The CANO/ACIO Standards and Competencies for Cancer Chemotherapy Nursing Practice toolkit is intended for use by trained Registered Nurses (RNs). The Toolkit provides general resources to support the use of the Standards and Competencies and is subject to the RNs judgment in each individual case. The CANO/ACIO Standards and Competencies for Cancer Chemotherapy Nursing Practice and the Toolkit are designed to provide information to assist decision-making and are not intended to be prescriptive. Individuals who use these documents are required to make their own determination regarding specific safe and appropriate clinical practices. While care has been taken to ensure that these documents reflect the state of general knowledge and expert consensus about practice in the field at the date of publication, CANO/ACIO does not make any warranty or guarantee in respect to any of the contents or information contained in this statement nor accept responsibility or liability whatsoever for any errors or omissions in the statement, regardless of whether those errors or omissions were made negligently or otherwise.

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CANO/ACIO STANDARDS AND COMPETENCIES FOR CANCER CHEMOTHERAPY NURSING PRACTICE

Introduction

The CANO/ACIO Standards and Competencies for Cancer Chemotherapy Nursing Practice have been written to provide standards for practice, education, and continuing competence of Registered Nurses (RNs). These standards and competencies will provide an important foundation for RNs to achieve quality chemotherapy practice environments and to ensure optimal cancer chemotherapy nursing practice in Canada. This document applies to the practice of Registered Nurses who provide cancer chemotherapy care for adult and pediatric patients in diverse settings throughout Canada where English and French languages are spoken, such as urban and rural, acute and community and inpatient and ambulatory clinics.

The National Strategy for Chemotherapy Administration (NSCA) is a special initiative of CANO/ACIO that seeks to establish national chemotherapy administration standards, competencies and educational resources for oncology nurses across Canada.
The Standards and Competencies for Cancer Chemotherapy Nursing Practice Toolkit was developed by the NSCA volunteer group to provide resources to support the dissemination of the Standards and Competecies nationwide to nurses at all levels and in all settings of the Canadian Cancer Care System. All of the tools can be found on the CANO/ACIO website. Additional tools will be developed throughout the implementation and evaluation phases of this initiative based on identified needs.

The toolkit consists of five tools to support dissemination of the Standards and Competencies: **(1)** The **promotional poster** can be used to introduce the Standards and Competencies document within your organization. The poster has the option for you to add setting specific information so that it can be utilized to promote in-services or staff meetings. **(2)** The **National Resources List: Chemotherapy Care and Continuing Competency Education** is in development. This list will be finalized at the CANO/ACIO conference in September 2011 and will be released shortly thereafter. **(3)** The **Recommended Content for Organizations to include in Cancer Chemotherapy Policies** is to help RNs advocate for inclusion of these policies into their organizations. **(4)** The **Self-Assessment Tool and Learning Plan** was developed to support Registered Nurses providing cancer chemotherapy care and administration with their reflective practice activities and to support their evaluation and identification of ongoing learning needs. **(5)** Finally, the **Power Point presentation** was developed to help organizations introduce the Standards and Competencies document and to generate discussion.

TOOL # 1:
Recommended Content for Organizations to Include in Cancer Chemotherapy Policies

The CANO/ACIO Standards and Competencies for Cancer Chemotherapy Nursing Practice[1], and the American Society of Clinical Oncology[2] provide insight into the policies and procedures that are required to enable safe chemotherapy administration and care in diverse practice settings. Registered Nurses should advocate for the inclusion of the following content areas into organizational policy and procedure manuals. This list is not exhaustive. These recommendations do not constitute all areas that should be addressed in a policies and procedures manual. Chemotherapy is used throughout this document, referring to the wide range of therapies used in the treatment of malignant diseases such as cytotoxic drugs, biologics, immunotherapies, targeted drug therapies, hormonal treatments, and high dose chemotherapy regimens supported with hematopoietic stem cell transplant[3].

Policy and Procedure Content Area Recommendations

1. Guidelines for competency development and maintenance for all health care professionals and staff (e.g. nurses, pharmacists, support workers)
2. Guidelines on who is able to order, prepare and administer chemotherapy
3. A Standardized approach for calculating dosage and standardized units for measure
4. Requirements for documentation availability prior to ordering chemotherapy regimens (e.g. cancer diagnosis, pathology, patient parameters, treatment plan)
5. Requirements for access to standardized chemotherapy regimens categorized by diagnosis and an approach for orders which deviate from the standard regimen
6. Guidelines for the safe preparation of cancer chemotherapy according to Canadian standards for occupational health and safety
7. Guidelines for working conditions that support the safe administration of chemotherapy
8. Quality control procedures for the chain of custody with chemotherapy preparation and delivery
9. Guidelines for chemotherapy orders, including the use of standardized order sets, pre-printed or electronic orders, content that should be included in a standardized order and steps to increase order safety (e.g. tall man lettering, generic name use)
10. Requirements for not using verbal orders, except to hold or stop chemotherapy

[1] Canadian Association of Nurses in Oncology/Association Canadienne des Infirmieres en Oncologie (CANO/ACIO). (2011). *Standards and Competencies for Cancer Chemotherapy Nursing Practice*. Vancouver, British Columbia, Canada: Author.

[2] American Society of Clinical Oncology (ASCO) and the Oncology Nursing Society (ONS). (2009). *Sample Policies for Safe Administration of Chemotherapy.* Retrieved from http://www.asco.org/ASCOv2/Department%20Content/Cancer%20Policy%20and%20Clinical%20Affairs/Downloads/Safety%20sample%20policies%20092809%20(7).doc

[3] Canadian Association of Pharmacists in Oncology (CAPhO). (2004). *Standards of Practice for Oncology Pharmacy in Canada. (V. 1.)* p. 49. North Vancouver, British Columbia: Author

11. Guidelines for chemotherapy preparation and labelling
12. Guidelines for achieving informed consent
13. Guidelines for patient education prior to the treatment, during the treatment and following the treatment
14. Guidelines to address language barriers between the person and health care team
15. Guidelines for independent verification by two competent health care clinicians for all elements of the administration process including the correct patient identification and accuracy of the planned treatment
16. Guidelines for management of extravasations
17. Guidelines for management of medical emergencies
18. Guidelines for the management and reporting of side effects, toxicities and other adverse events.
19. Guidelines for documentation
20. Standard definitions of disease-specific toxicities that will inform planning, monitor and documentation
21. Safe handling guidelines (including Proper Protective Equipment)
22. Guidelines for the disposal of hazardous drugs and waste
23. Guidelines for cleaning the environment
24. Guidelines for hazardous drug spill management
25. Guidelines for screening, including screening for distress
26. Guidelines for referral to supportive care (e.g. psychosocial support, spiritual care, home care)

TOOL #2:
Self-Assessment Tool

Standards and Competencies for Cancer Chemotherapy Nursing Practice: Self-Assessment

This self-assessment tool was developed to support Registered Nurses providing chemotherapy care and administration with their reflective practice activities and to support their evaluation and identification of ongoing learning needs. This tool was adapted from the Canadian Association of Nurses in Oncology/Association Canadienne des Infirmieres en Oncologie (CANO/ACIO) Standards and Competencies for Cancer Chemotherapy Nursing Practice[4] and the de Souza Institute's Self-Assessment Tool for Chemotherapy and Biotherapy Care[5].

There are three parts to the tool – Parts A to C – with each part designed to provide you with insight into your current practice. Please read each section carefully and reflect on the evaluation criteria provided. For an explanation of the different levels of practice, from Novice to Expert, please see Appendix A. On completion of this tool, you can then develop a targeted learning plan to enhance your practice and maintain your competency. A template for your learning plan is included in Appendix B.

[4] CANO/ACIO. (2011). Standards and Competencies for Cancer Chemotherapy Nursing Practice. Vancouver, British Columbia, Canada: Author.
[5] de Souza Institute. (2010). Self-assessment: Chemotherapy and biotherapy care. Toronto, Ontario, Canada: Author.

PART A

Practice Domain	Novice	Advanced Beginner	Competent	Proficient	Expert	Not Applicable to my Practice
Comprehensive Health Assessment (CANO/ACIO, 2011, p. 10) Registered Nurses providing cancer chemotherapy care shall perform and document comprehensive health assessments at the onset of cancer chemotherapy (and biotherapy) treatments and continuing throughout the cancer care continuum						
❍ I perform initial heath assessments that identify factors that will impact the person's cancer chemotherapy experience, this may include:						
● Pre-existing health problems including allergies, medication and any previous exposure to cancer chemotherapy medications						
● Age and stage of development						
● Psychosocial factors						
❍ I perform ongoing health assessments in a timely manner:						
● Before each chemotherapy cycle						
● Before renewal of self-administered and non-cyclical chemotherapy and biotherapy prescriptions						
● In response to patient and their family's concerns						
● When health status changes (e.g. physical, emotional, mental, spiritual, cognitive, developmental, environmental changes)						
● When side effects occur						
● When evidence of an adverse event /toxicity						
❍ I implement valid and reliable tools for assessments such as ESAS, and PPS, Peds QOL, Faces, FLACC or BARF scale						
❍ I comprehensively document assessments according to my organization's charting standards and my provincial professional association documentation recommendations.						
❍ I construct a plan of care in collaboration with the patient, family and interprofessional team to address issues identified during assessments						

Supportive and Therapeutic Relationships (CANO/ACIO, 2011, p. 11)
Registered nurses providing cancer chemotherapy care will establish, monitor and maintain supportive and therapeutic relationships while providing cancer chemotherapy care to persons living with cancer.

❍ I consider the emotional cultural and spiritual context of patients and families during initial and ongoing care.						
❍ I work with the patient and family to identify support services needed to manage and initiate referrals as appropriate.						
❍ I reflect on and monitor the therapeutic relationships I am engaged in overtime, as needs evolve and outcomes change.						
❍ I document the patient and family's perspective to enable individualized cancer chemotherapy and biotherapy care while maintaining confidentiality.						
❍ I listen to and explore the patient and family's concerns.						

Management of Cancer Symptoms and Treatment Side Effects (CANO/ACIO, 2011, p. 11)
Registered nurses providing cancer chemotherapy care will manage cancer symptoms and treatment side effects in collaboration with the inter-disciplinary healthcare team.

❍ I maintain and apply current knowledge, judgement and skill in the management of chemotherapy and biotherapy side effects and toxicities related to the specific population in which I practice. This includes:						
● Neutropenia						
● Thrombocytopenia						
● Anemia						
● Peripheral neuropathies and neurotoxicity						
● Hepatotoxicity						
● Nephrotoxicity						
● Hemorrhagic cystitis						
● Cutaneous toxicities: nail changes, rash, pigmentation alternations, Hand – foot syndrome, and photosensitivity						
● Alopecia						
● Cardiac toxicity						
● Pulmonary toxicities						
● Cognitive changes						
● Psychosocial distress						
● Chemotherapy induced nausea & vomiting						
● Anorexia & cachexia						
● Mucositis						

● Diarrhea						
● Constipation						
● Sleep disorders						
● Ocular toxicity						
● Fatigue						
● Sexuality alterations and fertility alterations						
● Infusion reactions						
● Extravasation and infiltration						
❍ I utilize ESAS or other cancer symptom screening tools and engage in further assessment as needed.						
❍ I apply evidence-informed symptom management guidelines and algorithms to prevent, minimize and/or manage cancer related symptoms						
❍ I collaborate with the interprofessional team and the patient and family to develop care plans that address chemotherapy and biotherapy side effects, toxicities, adverse events and patient identified concerns.						
❍ I understand the principles, indications, classifications and mechanism of action for chemotherapies and biotherapies commonly administered in my practice.						
❍ I apply medication safety principles and theories, for example, human factors principles.						
❍ I apply principles of safety and safe handling specific to the route and method of chemotherapy and biotherapy administration and the cytotoxic profile of the drugs.						
❍ I apply principles of safe handling to disposal of contaminated equipment and cytotoxic agents, spill management, and contaminated body fluids.						
❍ I manage infusions and equipment appropriately related to the treatment protocols, patient and family preference and resources available.						
❍ I document screening, assessments, nursing care, interventions and outcomes in the patient's health record in a timely manner.						
❍ I communicate with cancer care team members, assessments, interventions, outcomes and concerns.						

Supportive and Therapeutic Relationships (CANO/ACIO, 2011, p. 11)
Registered nurses providing cancer chemotherapy care will establish, monitor and maintain supportive and therapeutic relationships while providing cancer chemotherapy care to persons living with cancer.

❍ I consider the emotional cultural and spiritual context of patients and families during initial and ongoing care.						
❍ I work with the patient and family to identify support services needed to manage and initiate referrals as appropriate.						
❍ I reflect on and monitor the therapeutic relationships I am engaged in overtime, as needs evolve and outcomes change.						
❍ I document the patient and family's perspective to enable individualized cancer chemotherapy and biotherapy care while maintaining confidentiality.						
❍ I listen to and explore the patient and family's concerns.						

Teaching and Coaching (CANO/ACIO, 2011, p. 12)
Registered nurses providing cancer chemotherapy care will provide teaching and coaching specific to the assessed learning needs of persons receiving cancer chemotherapy.

❍ I assess the patient and family's readiness to learn by evaluating age and developmental level, existing knowledge level, their expectations for the treatment and response to learning.						
❍ I pace the teaching based on the patient and family's readiness to learn.						
❍ I provide the patient and family with information specific to their cancer treatment in relation to the following:						
● Purpose, mechanism of action, route, and schedule of the treatment and supportive medication						
● Immediate, early, late and delayed side effects and toxicities of treatment and their management, differentiating between expected, non-urgent side effects and those that require immediate medical attention						
● Safe use of mechanical devices and equipment						
● Vascular access device assessment and care						
● Safe handling of contaminated equipment and body fluids						
● Requirements and rational for monitoring parameters including blood work, diagnostic investigations, and symptoms						
❍ I provide patients and families with opportunities for reinforcement of the education and validation of their understanding.						
❍ I evaluate the outcomes of the education.						
❍ I document teaching provided.						
❍ I collaborate with the healthcare team, including the pharmacist and physician, to provide patient education.						

Facilitating Continuity of Care/Navigating the System (CANO/ACIO, 2011, p.12)
Registered nurses providing cancer chemotherapy care work to promote continuity of care and help persons navigate the health care system.

❍ I facilitate and advocate for chemotherapy and biotherapy care to be provided in the most appropriate setting along the cancer continuum for the patient and family, with consideration given to their needs.						
❍ I facilitate processes that enable patients and families to communicate with the appropriate members of the health care team leading to access to resources and assistance when needed. This process addresses who, when and how to communicate with the health care team.						
❍ I communicate with healthcare providers at points of transition for the patient and family to promote continuity of care for the patient.						
❍ I assist patients and families to access comprehensive supportive care. This includes psychosocial care, spiritual care, prosthetic device access, and additional care based on patient and family specific needs.						

Decision Making and Advocacy (CANO/ACIO, 2011, p. 13)
Registered nurses providing cancer chemotherapy care promote autonomous decision-making and advocate for the well-being of persons receiving cancer chemotherapy care.

❍ I provide information, education and support to patients and families to facilitate their decision making and autonomy.						
❍ I advocate for the patient's wishes and decisions in relation to their cancer chemotherapy care.						

Professional Practice and Leadership (CANO/ACIO, 2011, p. 13)
Registered nurses providing cancer chemotherapy care participate in and support professional practice and leadership.

❍ I recognize the limit of my competence and will only perform cancer chemotherapy administration or care for which I have the competency or ability to manage the outcomes.						
❍ I collaborate with healthcare professionals to make decisions about our organization's capacity to provide safe chemotherapy and biotherapy services based on the level of competence of involved healthcare professionals and clinical facilities available.						
❍ I seek out mentorship in areas where my chemotherapy and biotherapy expertise is limited.						
❍ I provide mentorship to novice nurses in areas in which I possess expertise.						
❍ I use research and evidence-based knowledge to provide care to patients and families.						
❍ I participate in professional oncology associations and professional practice groups to further the practice of cancer chemotherapy and biotherapy nursing.						
❍ I recognize and critically analyze situations for potential and actual ethical issues, collaborating with the healthcare team to apply ethical frameworks to support the patient and family's decision making. I access resources as needed to assist in this process.						
I am working towards completing (or maintaining) my national certification in oncology offered by the Canadian Nurses Association in the next five years or other recognized specialty certifications through recognized organizations (e.g. Oncology Nurses Certification Corporation) if feasible. I have attained and continue to maintain knowledge, skill and judgement in chemotherapy administration (e.g. APHON Chemotherapy Biotherapy Provider status).	Yes:_____ No:_____ Not Feasible:_____ Comments:					

Adapted from: CANO/ACIO. (2011). Standards and competencies for cancer chemotherapy nursing practice; de Souza Institute. (2010). Self-assessment: Chemotherapy and biotherapy care. Toronto, Ontario, Canada: Author.

PART B
Additional Reflections on My Practice

Please consider your strengths and areas to enhance in your chemotherapy practice. Integrate concrete examples of each.

Strengths	Areas to Enhance

PART C
Peer Assessment: Chemotherapy Care

The Canadian Nurses Association (CNA) and most provincial nursing professional associations identify peer input as and essential component of self-assessment[6]. Through peer input you gain greater awareness of your strengths and your opportunities for learning[7,8]. When selecting a peer to provide you with feedback, choose an individual who is familiar with your practice and whose feedback you will feel comfortable receiving and integrating within your learning plan. This individual should be knowledgeable in chemotherapy care. Consider making a list of questions to ask your peer based on your own self- assessment. The peer feedback should be specific and constructive, with examples provided from practice, and should provide you with areas of strength and areas to continue to enhance.

Strengths	Areas to Enhance

This self-assessment tool was adapted with permission from the de Souza Institute, Toronto, ON (de Souza, 2010). The Canadian Association of Nurses in Oncology (CANO/ACIO) expresses sincere gratitude to the de Souza Institute team for the generous sharing of their documents and expertise that will benefit persons across the country.

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[7] CNA. (2000). A national framework for continuing competency programs for Registered Nurses. Ottawa, Ontario, Canada: Author
[8] College of Nurses of Ontario (CNO). (2010). Self –assessment tool: Quality assurance program. Retrieved September 19, 2010, from http://www.cno.org/docs/qa/SAT_PeerInputPrompts.pdf

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APPENDIX A:
Evaluation Framework Levels adapted from Benner's (1984) Novice to Expert Theory and CANO/ACIO (2006) Self Assessment Tool

NOVICE
Novices have little to no experience with the situation in which they are expected to practice[9]. Broad guidelines based on objective attributes (e.g. vital signs, or fluid output parameters) are used to guide nursing action[10]. Novices frequently ask for assistance in making clinical decisions[11].

ADVANCED BEGINNER
Advanced Beginners have had limited experience in clinical situations, but are able to identify normal findings and beginning to identify recurring meaningfully patterns in clinical situation that inform their nursing care[12,13]. Advanced beginners have some knowledge and conceptual understanding of the competency area[14].

COMPETENT
The competent nurse has had varied experience in practice and is able to identify normal and abnormal findings[15]. Competent nurse are able to organize, prioritize and plan their work based on attributes and aspects most relevant in the clinical situations[16]. In addition, they are aware of the patient and family view points and can manage complex clinical situations[17].

PROFICIENT
The proficient RN has had extensive experience in the area and is able to anticipate the possibility of assessment changes and prioritize action in changing situations[18]. Proficient nurses interpret the patient and family perspective from a broad perspective and view the clinical situation as a whole, as opposed to in parts, which enhances their clinical decision making[19,20].

EXPERT
The expert RN has extensive experience and exposure to clinical situations and a deep understanding of the total situation[21],[22]. The expert rapidly and consistently identifies actual and potential assessment changes, and they rapidly prioritize and change priorities in differing conditions[23]. The expert RNs personal values are considered with perspective, which enhances their ability to support the patient's choices[24].

NOT APPLICABLE TO MY PRACTICE
This level is appropriate if the competency topic under evaluation is not relevant to the nurses' current practice[25].

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9 Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice (Commemorative Ed.).* Upper Saddle River, New Jersey: Prentice Hall

11 CANO/ACIO. (2006). Practice standards and competencies for the specialized oncology nurse. Vancouver, British Columbia, Canada: Author.

10, 12, 16, 19, 21 Benner, P. (1984)

13, 14, 15, 17, 18, 20, 22, 23, 24, 25 CANO/ACIO. (2006)

APPENDIX B:
Learning Plan Template

Name: **Date:** **Page** **of**

Your learning plan should be developed in light of your self-assessment, which includes all 4 parts of the self-assessment tool. Learning goals should reflect areas of greatest need, and may integrate the College of Nurses of Ontario's selected practice standards from their yearly Quality Assurance Program (e.g. 2010 - Ethics).

Learning goals	Activities to achieve goals and resources/ strategies	Success Indicators	Expected completion date	Actual completion date	Post completion - Evaluation of changes to my practice

Adapted from the College of Nurses of Ontario's QA Learning Plan Form (2010b) and CANO/ACIO (2006)

APPENDIX C: DEFINITIONS

Adverse Event

"Any unfavorable or unintended symptom, sign, or disease (including abnormal lab) temporarily associated with the use of a medical treatment, or procedure that may or may not be considered relevant to the medical treatment or procedure. Such effects can be intervention related, dose related, route related, patient related, caused by an interaction with another drug."[26]

Baxter Retching Faces (BARF)

A pictorial scale for measuring nausea severity and may assist in nausea management in children[27].

Cancer Chemotherapy

The wide range of therapeutic options used in the treatment of malignant diseases, including categories such as cytotoxic drugs, biologics, immunotherapies, targeted drug therapies, hormonal treatments, and high dose chemotherapy regimens supported with hematopoietic stem cell transplant[28].

Cancer Chemotherapy Regimen

One or more cancer chemotherapy drugs used alone or in combination in a protocol, generally administered cyclically over a prescribed period of time[29].

Cancer Chemotherapy Care

The support required by persons during cancer chemotherapy to maintain health, to monitor their experience of chemotherapy, and to manage problems that arise. This may include but is not limited to assessment, therapeutic communication, coordination of care, education and information, access to resources, psychosocial support, and referral to specialized services and professionals to manage identified problems.

Coaching

" A patient education method that guides and prompts patients to be active participants in behavior change. Coaching directs patients through an activity in an effort to improve outcomes. This direction might include education, goal setting, encouragement, and support of activities to reach personal objectives."[30]

[26] National Institutes of Health, National Cancer Institute. (2003). *Common Terminology Criteria for Adverse Events (CTCAE)- Glossary Report,* p.2. Retrieved August 20, 2010 from https://ctep.cancer.gov/ Cancer Therapy Evaluation Program

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Continuing Competence

"The ongoing ability of a registered nurse to integrate and apply the knowledge, skills, and judgment, and personal attributes required to practice safely and ethically in a designated role and setting."[31]

Eastern Cooperative Oncology Group (ECOG) Performance Status Tool:

The ECOG scale is used by health care professionals to "assess how a patients disease is progressing, assess how the disease is progressing, assess how the disease affects the daily living abilities of the patient, and determine appropriate treatment and prognosis."[32]

Edmonton Symptom Assessment System (ESAS) Tool:

"The ESAS is a tool that was developed t assist in the assessment of nine symptoms that are common in palliative care patients: pain, tiredness, drowsiness, nausea, lack of appetite, depression, anxiety, shortness of breath, and wellbeing".[33]

FLACC- Behavioural Pain Assessment Tool

The Face, Legs, Activity, Cry, Consolability scale or FLACC scale is a measurement used to assess pain for children between the ages of 2 months and 7 years or individuals that are unable to communicate their pain.[34]

FACES - Wong-Baker FACES ® Pain Rating Scale

This tool was created to help children, ages 3 and older, communicate about their pain, and improve pain assessment and management in children.[35]

Independent Double Check

"An independent double check is a process in which a second practitioner conducts a verification. Such verification can be performed in the presence or absence of the first practitioner. In either case, the most critical aspect is to maximize the independence of the double check by ensuring that the first practitioner does not communicate what he or she expects the second practitioner to see, which would create bias and reduce the visibility of an error."[36]

Leadership

"Essential element for quality professional practice environments where nurses can provide quality nursing care. Key attributes of a nurse leader include being an: advocate for quality care, a collaborator, an articulate communicator, a mentor, a risk taker, a role model and a visionary."[37]

Lansky Play Performance Scale

The Lansky Play Performance Scale for pediatric patients may be used with children age 1-16 who have any type of malignancy. The tool is used to determine functional status of the recipient.[38]

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[31] CNA. (2000). A National Framework for Continuing Competence Programs for Registered Nurses, p.6. Retrieved August 20, 2010, from http://www.cna-nurses.ca/CNA/nursing/regulation/competence/default_e.aspx.

[32] Eastern Cooperative Oncology Group (ECOG). (2006). ECOG Performance Status Tool: Author. Retrieved July 26th, 2011, from http://ecog.dfci.harvard.edu/general/perf_stat.html

[33] Bruera, E., Kuehn, N., Miller, MJ., Selmser, P,, & Macmillan, K. (1991) The Edmonton Symptom Assessment System (ESAS): a simple method for the assessment of palliative care patients. J Palliative Care. 7:6-9.

[34] Merkel, S. I., Voepel-Lewis, T., Shayevitz, J. R., & Malviya, S. (1997). The FLACC: A behavioral scale for scoring postoperative pain in young children. Pediatric Nursing, 23(3), 293–297

[35] Wong-Baker FACES Foundation (2016). Wong-Baker FACES® Pain Rating Scale. Retrieved [Aug. 2016] with permission from www.WongBakerFACES.org. Originally published in Whaley & Wong's Nursing Care of Infants and Children. © Elsevier Inc.

[36] Institute for Safe Medication Practices Canada. (2005). *Independent Double Check.* p.1. Retrieved August 23, 2010 from http://www.ismp-canada.org/definitions.htm

[37] CNA. (2011). *Leadership: Succession Planning for Nursing Leadership*. www.cna-aiic.ca.

[38] Lansky SB, List MA, Lansky LL, Ritter-Sterr C, Miller DR. (1987) *The measurement of performance in childhood cancer patients.* Cancer. 1;60(7):1651-6

Palliative Performance Scale

"This is a clinical assessment instrument developed at the Victoria Hospice that is used to assess the functional status of palliative care patients and to communicate their status among care provider team members."[39]

PedsQL™ Measurement Model

The Measurement Model for Pediatric Quality of Life Inventory. The PedsQL™ measurement Model is a modular approach to measuring health related quality of life (HRQOL) in healthy children and adolescents (ages 2-18 years) and those with acute and chronic health conditions.[40]

Professional Practice

"Each Registered Nurse is accountable for safe, compassionate, competent and ethical nursing practice. Professional practice occurs within the context of the Code of Ethics for Registered Nurses (CNA, 2008), provincial\territorial standards of practice and scope of practice, legislation and common law. Registered nurses are expected to demonstrate professional conduct as reflected by the attitudes, beliefs and values espoused in the Code of Ethics for Registered Nurses. Professional registered nurse practice is self regulating. Nursing practice requires professional judgment, interprofessional collaboration, leadership, management skills, cultural safety, advocacy, political awareness and social responsibility. Professional practice includes awareness of the need for, and the ability to ensure, continued professional development. This ability involves the capacity to perform self-assessments, seek feedback and plan self-directed learning activities that ensure professional growth. Registered nurses are expected to use knowledge and research to build an evidence-informed practice."[41]

Quality Practice Environment

A quality practice environment maximizes outcomes for clients, nurses, and systems. Quality practice environments demonstrate the following characteristics: communication and collaboration, responsibility and accountability, realistic workload, leadership, support for information and knowledge management, professional development and a workplace culture that values the wellbeing of clients and employees.[42]

Safe Handling

"The use of engineering controls, administrative controls, work practice controls and personal protective equipment to minimize occupational exposure to hazardous agents".[43]

[39] Victoria Palliative Research Network. (2011). Palliative Performance Scale: Author. Retrieved July 26th, 2011, from http://web.his.uvic.ca/Research/NET/tools/PrognosticTools/PalliativePerformanceScale/index.php

[40] Varni, J. (2016) Peds QL Measurement Model. Retrieved Aug 2016 from http://www.pedsql.org/about_pedsql.html

[41] CNA. (2010). *Canadian Registered Nurse Examination Competencies: Professional Practice.* Retrieved on March 31, 2011 from http://www.cna-aiic.ca/CNA/nursing/rnexam/competencies/default_e.aspx

[42] Canadian Nurses Association and the Canadian Federation of Nurses Unions. (2006). *Joint Position statement: Practice Environments: Maximizing Client, Nurse and System Outcomes.* p. 2. Retrieved August 20, 2010, from http://www.cna-aiic.ca/CNA/practice/environment/practice/default_e.aspx

[43] Polovich, M. (2005). Developing a hazardous drug safe-handling program, *Community Oncology,* 2, Number 5, p.403-405.

Side Effects

"Any result of a drug or therapy that occurs in addition to the intended effect, regardless of whether it is beneficial or undesirable".[44]

Specialized Oncology Nurse

" A Registered Nurse who has a combination of expanded education focused on cancer care and experience, such as two years in a setting where the primary focus is cancer care delivery. The Specialized Oncology Nurse might acquire specialty education through a variety of ways; for example, enrolment in an undergraduate nursing program, completion of an Oncology Certificate Program, distance specialty education, or registration in and completion of the certification exam offered by the Canadian Nurses Association and attainment of the distinction CON(C). The Specialized Oncology Nurse is one who works in a specialized inpatient setting, such as an oncology unit, or bone marrow transplant unit, or in an ambulatory setting where focused on the delivery of cancer care, or in a screening program, or in a supportive care setting, or community setting offering palliative care."[45]

Toxicity

"Toxicity is not clearly defined by regulatory organizations. (National Cancer Institute (NCI) defines) toxicity … as an adverse event that has a possible, probable, or definite attribution to cancer chemotherapy including investigational chemotherapy."[46]

[44] McGraw-Hill. (2002). *Side Effects, Concise Dictionary of Modern Medicine.* The McGraw-Hill Companies, Inc.

[45] CANO/ACIO. (July 2001). *Standards of Care.* Retrieved March 31st 2011 from www.cano-acio.ca

[46] National Cancer Institute (CNI). (1999). Common Toxicity Criteria Quick Reference, Retrieved from NCI, Common Toxicity Criteria, Cancer Therapy Evaluation Program, *Common Toxicity Criteria Manual Version 2.0*, p.3.

APPENDIX D

National Strategy for Chemotherapy Administration: Evaluation and Toolkit Working Group

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NSCA
SNAC

National Strategy For Chemotherapy Administration
Stratégie Nationale pour l'Administration de la Chimiothérapie

CANO
ACIO

Canadian Association of Nurses in Oncology
Association canadienne des infirmières en oncologie

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