Published in final edited form as:

J Nurses Prof Dev. 2016 ; 32(2): 64–E6. doi:10.1097/NND.0000000000000250.

Standardizing Assessment of Competences and Competencies of Oncology Nurses Working in Ambulatory Care

Clara Beaver, MSN, RN, AOCNS, ACNS-BC [Manager],

Ambulatory Operations, Wertz Infusion Center, Karmanos Cancer Center, Detroit, Michigan.

Morris A. Magnan, PhD, RN [Clinical Nurse Specialist],

Karmanos Cancer Center, Detroit, Michigan.

Denise Henderson, MEd, BSN, RN [Educator],

Patient and Community Education, Karmanos Cancer Center, Detroit, Michigan.

Patricia DeRose, MPA, RN [Director],

Oncology Services, McLaren Greater Lansing, Michigan.

Kathleen Carolin, MSA, BSN, RN [Senior Vice President],

Ambulatory and Support Services, Karmanos Cancer Center, Detroit, Michigan.

Gerold Bepler, MD, PhD [President and Chief Executive Officer]

Karmanos Cancer Institute, Detroit, Michigan.

Abstract

A nursing quality consortium standardized nursing practice across 17 independently functioning ambulatory oncology sites. Programs were developed to validate both competences and competencies. One program assessed nine competences needed to develop systems of care to detect and treat treatment-related side effects. A second program was developed to assess competencies needed to prevent harm to oncology patients. This manuscript describes a successful approach to standardizing nursing practice across geographically distant academic and community sites.

Before joining forces to create the largest cancer network in Michigan in 2014, key leaders of the Karmanos Cancer Institute and McLaren Health Care met to discuss a strategic architecture for clinical and research integration as well as overall organizational alignment. Several guiding principles were identified, including one which focused on developing a “first of a kind” hybrid academic community model to elevate the quality of care, outcomes, economics, clinical research, and education. Shortly thereafter, the Karmanos/McLaren Ambulatory Oncology Nurse Quality Consortium (AONQC) was formed and charged with several responsibilities, including that of ensuring *standardization of nursing practice across all ambulatory oncology sites*. The enormity of this undertaking cannot be fully appreciated

ADDRESS FOR CORRESPONDENCE: Clara Beaver, MSN, RN, AOCNS, ACNS-BC, Wertz Infusion Center, Karmanos Cancer Center, 4100 John R, Mailcode: WE011C, Detroit, MI 48201 (beaverc@karmanos.org).

The authors have disclosed that they have no significant relationships with, or financial interest in, any commercial companies pertaining to this article.

until one considers that nursing practice at 17 essentially distinct and functionally independent cancer care venues in Michigan's Lower Peninsula needed to align to ensure that an equitable standard of high-quality nursing care was being provided at each venue.

The AONQC is essentially a recommending body comprised of clinical experts and administrative nurses from both academic and community sites. AONQC members were selected for membership by senior level management based on their perception that each member brought a distinct level of expertise to the group with less consideration given to achieving representation of all academic and community sites. Entrusting the AONQC, a quality consortium, with responsibility for standardizing nursing practice is a unique arrangement. As a recommending body, the AONQC has no legitimate authority within the organization to write policy or implement nursing practice guidelines. Typically, nursing administration, nursing education, boards of nursing, or credentialing entities are given authority and responsibility for setting standards of nursing practice and assuring initial and ongoing competent nursing practice to meet those standards (Scott Tilley, 2008). As a first step toward standardization of nursing practice across all 17 of the network's venues, the AONQC chose to ensure that nurses at each venue were competent to deliver high-quality oncology nursing care. This manuscript provides an overview of the work of the AONQC to develop and implement a system-wide process to assess competences and competencies of registered nurses working in oncology ambulatory clinics and infusion centers. The manuscript first makes a distinction between competence and competency and then presents a point of view about competence and competency in the realm of nursing practice. Approaches to assessing selected competences and competencies pertinent to oncology nursing practice are presented. Finally, insights into factors that facilitated successful implementation of the competence and competency assessment programs are discussed.

COMPETENCE AND COMPETENCY

The terms "competence" and "competency" often are used interchangeably. However, the literature suggests that these terms should be used to signify two distinct attributes of individuals (Alspach, 1992; McMullan et al., 2003; Schroeter, 2009; Scott Tilley, 2008). Competence refers to the attribute of having in one's possession the knowledge, skills, and abilities necessary to perform a task, duty, or job (Alspach, 1992; Roe, 2002). In other words, competence implies that what the individual needs to effectively complete a job or task is present and sufficient to actually perform the job or task competently. One might think of competence as being in possession of "antecedent" knowledge and skills needed to complete a job or task. In contrast, competency refers to how adept one is at actually performing a job or task according to some standard established by institutional policies, best-practice guidelines, or professional standards of practice (Schroeter, 2009). The assessment of both competence and competency is a central concern for educators and administrators in practice disciplines such as nursing, medicine psychology, and physical/occupational therapy (Bhalla et al., 2014; Roe, 2002; Sakurai et al., 2013; Scott Tilley, 2008; Watson, Stimpson, Topping, & Porock, 2002). Although much of the literature on competence and competency focuses on identifying valid approaches to assessing attributes of students during the preservice period of their education, there is a growing interest in validating both competences and competencies of postgraduate professionals in their work

environments (Case Di Leonardi & Biel, 2012; Przybyl, Androwich, & Evans, 2015; Roe, 2002).

The Joint Commission requires organizations to assess staff competences and competencies at the time of hire and on an ongoing basis (Joint Commission, 2015). However, the work of identifying what knowledge, tasks, duties, and skills should be assessed as well as determining how to assess them is the responsibility of the employer. When designing assessments, it is best to remember that no single assessment strategy will be suitable for all situations (Wright, 2005). Nurses' movement from specialty to specialty requires that they acquire new knowledge and develop new skills; thus, assessments of competences and competencies in professional practice need to be tailored to specific circumstances of nursing practice (Lundgren & Houseman, 2002).

COMPETENCE AND COMPETENCY IN THE REALM OF NURSING PRACTICE

Understanding competence and competency related to nursing practice begins with insights into the realm of nursing practice and the respective aims and desired results associated with diverse systems of nursing practice. The realm of nursing practice can be characterized as consisting of three systems of nursing practice: the social system, the interpersonal system, and the technological system (Banfield, 2011; Orem, 2001). The *social system* refers to the ways nurses and persons come together and the professional and contractual relations that are in place. The aim of the social system is to bring about, ideally, an explicit agreement between the nurse and patient such that the nurse expresses a willingness to provide nursing care and the patient expresses a willingness to receive nursing care. The *interpersonal system* involves the personal relations between nurses and persons receiving care, including family members. Nurses sometimes misconstrue the interpersonal system of care as being nothing more than the establishment of a "caring" interpersonal relationship. This notion does not consider that the aim of establishing an interpersonal relationship or connection with patients and families is "to minimize patient stress and enable the patient and family members to act responsibly in matters of health and health care" (Orem, 2001, p. 101). The *technological system* of nursing practice refers to the processes through which nurses identify the requirements for nursing care, design systems for the provision of the required care, and engage in the delivery of this care. The aim of the technological system of practice is to design and deliver systems of care that bring about conditions and events that (a) lead to positive changes in the patient's health state, (b) prevent harm, and (c) prevent deterioration of the health state. Although competences and competencies are required in all three systems of nursing practice, an immediate concern for the AONQC team members was addressing competences and competencies of nurses related to aspects of the *technological system of practice that are common and recurring features of oncology nursing practice situations*. Two categories of common, recurring features of oncology nursing practice situations were identified: (a) situations where patients are vulnerable to or experiencing adverse effects from their treatment and (b) situations where patients are at risk of harm during the administration of chemotherapeutic agents or through unwarranted exposure to chemotherapy agents.

ASSESSING ANTECEDENT KNOWLEDGE NEEDED TO DESIGN SYSTEMS OF CARE TO DETECT AND MANAGE TREATMENT-RELATED SIDE EFFECTS

Nursing practice is a practical endeavor in the sense that the provision of nursing care is directed toward the accomplishment of some goal. Often, the goal orientation for nursing practice is to prepare patients for conditions or events that have a high probability of occurring but do not currently exist. An example of commonly occurring high-probability events is the adverse treatment-related side effects experienced by some oncology patients. A nursing goal in this situation is to design systems of care that facilitate the patient's early detection of specific side effects and lead to effective self-management of the side effect when it does occur. Nurses cannot design and/or deliver effective systems of care in these situations without having some degree of mastery of a body of antecedent knowledge. For example, a nurse cannot design an effective system of care for a patient experiencing cancer-related fatigue (CRF) if he or she does not have prior (antecedent) knowledge of the natural history of CRF (its onset, severity, and duration) for a particular individual. The nurse must also know its causes, manifestations, and consequences and have prior knowledge of valid, evidence-based ways of managing CRF. On the basis of this need, AONQC members determined that assessing nurses' mastery of antecedent knowledge about commonly occurring side effects of cancer treatment (chemotherapy and/or radiation therapy) would be an appropriate focus for validating clinical competence of nurses in the technological system of practice. Validating that oncology nurses possess the requisite antecedent knowledge to design an effective system of care that will help patients recognize and manage adverse treatment-related side effects does not ensure that the care will be delivered competently or at all. When teaching patients about treatment-related side effects, essential features of an effective system of care will include (a) an assessment of the patient's current knowledge base, readiness to learn, and barriers to learning; (b) a structured teaching plan that is tailored to the patient's learning style and literacy; and (c) an evaluation or feedback component to validate that learning has taken place. Delivering a system of care can be thwarted by environmental factors (e.g., an emergency on the unit), time constraints, and/or patient unwillingness or inability to participate in care. Nevertheless, administrators and educators need to be sure that any failure to deliver requisite nursing care is not due to the nurse's lack of antecedent knowledge.

Nine side effects of cancer treatment (chemotherapy and/or radiation therapy) were targeted including CRF, cancer pain, constipation, nausea and vomiting, diarrhea, mucositis, chemotherapy-induced peripheral neuropathy, radiation dermatitis, and psychosocial distress. These side effects were chosen because they are commonly occurring, have a direct impact on the patient's quality of life, and can influence a patient's ability to complete the prescribed treatment without interruption (Eilers, Harris, Henry, & Johnson, 2014; Feight, Baney, Bruce, & McQuestion, 2011; Fulcher & Gosselin-Acomb, 2007; Irwin, Lee, Rodgers, Starr, & Webber, 2012; Mitchell, Beck, Hood, Moore, & Tanner, 2007; Muehlbauer et al., 2009; Oncology Nursing Society, 2014; Tofthagen, Visovsky, & Hopgood, 2015; Woolery et al., 2008). To assess competences, educational content and test questions were developed for each topical area by AONQC members working in dyads

consisting of a principal author and a reviewer. All content developers submitted their educational programs in the form of a PowerPoint presentation prepared according to specific predetermined criteria (see Figure 1).

Final approval of each presentation (content and test questions) was based on a review by an expert panel consisting of a doctorally prepared clinical nurse specialist, a board-certified advanced practice oncology nurse, and two nurse educators. During this review, the expert panel appraised (a) appropriateness of learner objectives, (b) accuracy of the content, (c) adequacy of the content to achieve the stated objectives, (d) logical flow, (e) uniformity of format across presentations, (f) test questions to ensure they could be answered based on the content presented, (g) proposed treatment interventions to ensure they were in keeping with Oncology Nursing Society (ONS) “putting evidence into practice” guidelines, and (h) American Psychological Association format style. The content areas developed, the number of slides, the number of test questions, and the estimated time for completion for each program are shown in Table 1. The minimal pass rate on each test was set at 80% based on recommendations made by corporate level nurse educators.

The estimated time required for individual staff members to complete competence validation related to antecedent knowledge of commonly occurring treatment-related side effects was considerable; approximately 2.5 hours if uninterrupted. Therefore, upper level management was consulted to secure full administrative support for competence validation, establish a time frame (in months) for staff to complete the validation content, and agree upon reimbursing staff for completing the validation process. Through these meetings, vice presidents of ambulatory care for McLaren and Karmanos reviewed the content with their respective managers and clinical leaders and fully endorsed the proposed validation programs. Administrators agreed that existing staff should complete all competence validation within 4 months and that staff could use time at work to complete the competence validation but no over time would be paid for this activity.

To date, all educational programs with test questions have been loaded into the computer-based learning and testing system (Health Stream). One hundred thirty employees are scheduled to complete the competence validation programs. In addition, inpatient directors and managers have expressed a keen interest in having their oncology registered nurse staff complete these same competence validation programs.

ASSESSING COMPETENCIES NEEDED TO PREVENT HARM

Nurses working in chemotherapy infusion centers regularly face the challenge of developing and delivering nursing systems of care that will protect patients from harm. The potential for error exists at every step of the chemotherapy process (Sheridan-Leos, 2007), but chemotherapy patients can be harmed in other ways as well. Three areas of major concern are (a) minimizing the risk for infection among patients who are actually or potentially immune-compromised, (b) ensuring that the chemotherapy delivered is correct in every detail, and (c) safe handling of chemotherapy to minimize patient and staff exposure to hazardous drugs. Oncology nurses’ use of impeccable, flawless technique to gain venous access and deliver chemotherapeutic agents as well as the use of a systematic patient

medication verification processes are essential to protect patients from harm. Similarly, systematic, approved approaches to managing chemotherapy spills are essential to minimize patient and staff exposure to hazardous drugs. Direct observation can be used to validate nurse competencies with respect to use of flawless technique, to verify that nurses competently employ a systematic approach to patient medication verification, and to validate safe handling of chemotherapy and management of chemotherapy spills.

At Karmanos Cancer Institute, well-qualified nurse preceptors and clinical nurse specialists have used direct observation and detailed checklists for many years to validate competencies of nurses working in our infusion centers. Figure 2 shows a list of 20 behavioral competencies for which checklists have been developed. Determining how to best implement a similar direct-observation-using-checklists process across all community sites was a challenge. The AONQC team determined that a train-the-trainer approach would be best. Before implementing our train-the-trainer approach, AONQC members drew upon their experience as educators and preceptors to identify characteristics that competency assessors must possess (see Figure 3). Then, the educators developed a program to introduce competency assessors to the principles and methods of competency assessment. Finally, prospective competency assessors attended a “competency assessor training” program where they received didactic instruction in competency assessment as well as instruction in the use of direct observation using checklists. Instruction was provided by an ONS board-certified advanced practice nurse and an ONS-certified nurse preceptor. Teach back and return demonstration were used to determine prospective assessors’ readiness to function capably as a competency assessor. Not all items from the list of 20 behavioral competencies were relevant for all community sites. For example, intravesical administration and intrathecal administration of chemotherapy are not done at most of the community sites. Consequently, prospective assessors were not held accountable for assessing staff competencies for procedures not performed at their facility. An example of a direct observation checklist to validate competencies related to administration of chemotherapy using the intravenous piggy back method of administration is shown in Figure 4.

In total, eight nurses attended the train-the-trainer educational sessions and gained approval to function as competency assessors. Some nurses served as competency assessors at multiple community sites. Immediately after the training sessions, participants were asked if the program was helpful and worthwhile. Each participant stated that he/she had not only learned something but also felt more confident about assessing fellow coworkers. The overall evaluation of the program was positive, and many assessors were glad to have standardized tools to use for assessment and training.

To date, more than 40 infusion nurses from across all academic and community-based sites have successfully completed direct observation competency validation. Competency validation is now conducted during orientation for all newly hired infusion nurses and annually for all other nurses working in our oncology infusion centers. Retraining of competency assessors and training of new competency assessors will occur annually.

DISCUSSION

There is no standard approach to developing and implementing programs to validate staff competences and competencies. The AONQC team considered all of the components involved in developing and implementing equitable validation programs that would be suitable for assessing nurse competences and competencies across all Karmanos/McLaren sites. The first task was to cultivate a group of nursing and oncology nursing experts who were able to (a) understand competences and competencies from a nursing practice frame of reference and (b) advocate for standardization of nursing care across a wide variety of practice situations (urban, rural, infusion center, office/clinic).

A next step was to identify competences and competencies relevant across settings, while recognizing that variability in the scope of services provided set limits on which competencies should be validated. Ultimately, the group selected high-volume (commonly occurring) treatment-related side effects and practice situations that carried a high risk of harm to oncology patients if not performed flawlessly. It is expected that quality indicators will be used to measure the impact of these programs on patient satisfaction and safety. For example, we anticipate that comparable levels of nurse competences across service sites will lead to comparable high levels of patient satisfaction with nursing education about treatment-related side effects (a nursing-sensitive indicator). Similarly, it is expected that comparable skills competencies will lead to comparable levels of safe practice across sites as shown by low levels of blood-borne infections and low incidences of medication errors.

The AONQC members recognized from the beginning of this effort that the quality of the competency validation program depended on the quality of the training provided to prospective skills assessors. Assessors not only must be proficient in the skills and behaviors to be validated but must also be able to recognize competency in peers, document practice variations, and discreetly interrupt any procedures being performed incorrectly. When designated preceptors are not available, assessments may be completed by qualified peers; therefore, selection and training are critical. By using a train-the-trainer approach, all assessors received the same level of education and validation to ensure that the process used to assess staff competencies was a rigorous one. Careful selection of educators to conduct the train-the-trainer sessions was another important consideration. The person(s) doing the training needs substantive understanding of the skills/tasks being validated and must understand how to educate assessors to correctly validate the quality of staff performance. It is important for the trainer to help prospective assessors become comfortable with correcting staff before, after, and/or during skills validation. Because most of the assessors validate skills of coworkers, there may be additional concerns related to “correcting my peers” that must be worked through during train-the-trainer sessions. These concerns were addressed (a) by dialoguing about specific concerns, (b) through role play, and (c) by presenting the trainee with a situation and then asking how they would handle the situation. Finally, it is important to remember that, once “trained,” the competencies of the assessor must be revalidated annually. This becomes yet another layer of the overall validation program.

The role of the unit/clinic manager cannot be overlooked when developing and implementing competence and competency validation programs. Implementing a program

that allows the work of the unit/area to continue relatively uninterrupted is vital. Critical questions need to be addressed. Will nurses be taken out of staffing to complete the prescribed modules and how will that be managed? Are peer assessors to be included in staffing on the days they are assigned to validate competency? The question of “who will cover my patients while I do this?” requires staff coordination and trust. Manager buy-in can make or break even the most well-considered validation program. Astute managers do not manage the validation process; instead, they recognize the veracity of the program invaluable aids them in assessing individual staff performance. It is the manager’s role to articulate competence and competency expectations and establish consequences if expectations are not met (Wright, 2005). At the same time, he/she must remain sensitive to staff perceptions of power inequalities that might arise if competences and competencies must be shown as a condition of continued employment (Cusack & Smith, 2010). The AONQC recognized nursing management as an important stakeholder in the overall validation process. Consequently, management was consulted early on to (a) review PowerPoint® programs for relevance, (b) decide which staff members should participate in the train-the-trainer program, and (c) determine which skills competencies were appropriate for their infusion nurses based on the services provided. Some competency assessors were selected because they were willing to travel across sites to validate competencies of nurses working in small community settings.

The AONQC employed two of the most commonly used methods to validate competences and competencies, which were tests and direct observation of daily work. Wright (2005) identifies 11 different methods for verifying competences and competencies and suggests that the use of a variety of techniques builds adult learning. Return demonstrations, presentations, and mock surveys are just a few of the methods that can be used. In the future, the AONQC will explore use of different validation methods to enhance program development and capture employee interest. It is expected that, with leadership support, the AONQC will be able to foster an environment in which staff value and become accountable for maintaining their competences and competencies.

The sustainability of this initiative cannot be assured in a volatile healthcare economy. The greatest costs incurred from this initiative are the costs associated with removing assessors from the staffing plan to validate staff performance. One can argue that ensuring a highly skilled staff is an important and cost-effective preventative measure that lowers the risk of costly medical errors. The AONQC has addressed some concerns about sustainability by investigating alternative strategies for validating competencies; for example, by using a biannual validation schedule to decrease the frequency of assessments. Sustainability will depend, in part, on having strong local and regional champions who are able to communicate the value of the program to administrators and peers.

CONCLUSION

The work reported here represents a first step in the AONQC’s effort to develop and implement processes for standardizing nursing practice across diverse, independently functioning, ambulatory oncology settings. This early effort was bifocal in that it was directed at validating both competences and competencies. One validation program was

designed and implemented to assess the competences needed to develop systems of care to detect treatment-related side effects and to help patients learn self-management of treatment-related side effects. A second validation program was developed to assess competencies needed to prevent harm to oncology patients. This early work has laid a foundation for the ongoing development of AONQC initiatives related to the quality and standardization of oncology nursing practice across multiple geographically distant service sites of the organization. The AONQC has no legitimate authority within the hierarchical structure of the organization. Nevertheless, it has a substantial power base because of the level of its members' nursing and oncology expertise and because of its position as the only corporate body dedicated to ensuring the quality of oncology nursing care across all ambulatory corporate entities. Moreover, the quality of the work produced has legitimized the AONQC as an expert panel committed to elevating the quality of oncology nursing care across all corporate entities.

References

- Alspach G (1992). Concern and confusion over competence. *Critical Care Nurse*, 12(4), 9–11. [PubMed: 1568383]
- Banfield BE (2011). Nursing agency: The link between practical nursing science and nursing practice. *Nursing Science Quarterly*, 24(1), 42–47. [PubMed: 21220575]
- Bhalla VK, Bolduc A, Lewis F, Nesmith E, Hogan C, Edmunds JS, ... Holsten SB (2014). Verification of resident bedside-procedure competency by intensive care nursing staff. *Journal of Trauma Nursing*, 21(2), 57–60; quiz 61–62. [PubMed: 24614293]
- Case Di Leonardi B, & Biel M (2012). Moving forward with a clear definition of continuing competence. *Journal of Continuing Education in Nursing*, 43(8), 346–351. quiz 352–353. [PubMed: 22263553]
- Cusack L, & Smith M (2010). Power inequalities in the assessment of nursing competency within the workplace: Implications for nursing management. *Journal of Continuing Education in Nursing*, 41(9), 408–412. [PubMed: 20839736]
- Eilers J, Harris D, Henry K, & Johnson L (2014). Evidence-based interventions for cancer treatment-related mucositis: Putting evidence into practice. *Clinical Journal of Oncology Nursing*, 18, 80–96. [PubMed: 25427611]
- Feight D, Baney T, Bruce S, & McQuestion M (2011). Putting evidence into practice. *Clinical Journal of Oncology Nursing*, 15(5), 481–492. [PubMed: 21951735]
- Fulcher CD, & Gosselin-Acomb TK (2007). Distress assessment: Practice change through guideline implementation. *Clinical Journal of Oncology Nursing*, 11(6), 817–821. [PubMed: 18063540]
- Irwin MM, Lee J, Rodgers C, Starr P, & Webber JR (2012). Putting evidence into practice: Improving oncology patient outcomes: Chemotherapy-induced nausea and vomiting resource. Pittsburgh, PA: Oncology Nursing Society.
- Joint Commission. (2015). Retrieved from <http://e-dition.jcrinc.com>
- Lundgren BS, & Houseman CA (2002). Continuing competence in selected health care professions. *Journal of Allied Health*, 31(4), 232–240. [PubMed: 12491953]
- McMullan M, Endacott R, Gray MA, Jasper M, Miller CM, Scholes J, ... Webb C (2003). Portfolios and assessment of competence: A review of the literature. *Journal of Advanced Nursing*, 41(3), 283–294. [PubMed: 12581116]
- Mitchell SA, Beck SL, Hood LE, Moore K, & Tanner ER (2007). Putting evidence into practice: Evidence-based interventions for fatigue during and following cancer and its treatment. *Clinical Journal of Oncology Nursing*, 11(1), 99–113. [PubMed: 17441401]
- Muehlbauer PM, Thorpe D, Davis A, Drabot R, Rawlings BL, & Kiker E (2009). Putting evidence into practice: Evidence-based interventions to prevent, manage, and treat chemotherapy- and

- radiotherapy-induced diarrhea. *Clinical Journal of Oncology Nursing*, 13, 336–341. [PubMed: 19502193]
- Oncology Nursing Society. (2014). Pain. Retrieved from <https://www.ons.org/practice-resources/pep/pain>
- Orem DE (2001). *Nursing concepts of practice* (6th ed.). St. Louis, MO: Mosby.
- Przybyl H, Androwich I, & Evans J (2015). Using high-fidelity simulation to assess knowledge, skills, and attitudes in nurses performing CRRT. *Nephrology Nursing Journal*, 42(2), 135–147 quiz 148. [PubMed: 26207275]
- Roe RA (2002). What makes a competent psychologist? *European Psychologist*, 7(3), 192–202.
- Sakurai H, Kanada Y, Sugiura Y, Motoya I, Yamada M, Tomita M, ... Okanishi T (2013). Standardization of clinical skill evaluation in physical/occupational therapist education— Effects of introduction of an education system using OSCE. *Journal of Physical Therapy Science*, 25, 1071–1077. [PubMed: 24259918]
- Schroeter K (2009). Competence literature review. Retrieved from www.cc-institute.org/docs_upload/competence_lit_review.pdf
- Scott Tilley DD (2008). Competency in nursing: A concept analysis. *Journal of Continuing Education in Nursing*, 39(2), 58–64 quiz; 65–66, 94. [PubMed: 18323142]
- Sheridan-Leos N (2007). A model of chemotherapy education for novice oncology nurses that supports a culture of safety. *Clinical Journal of Oncology Nursing*, 11(4), 545–551. [PubMed: 17723967]
- Toftthagen C, Visovsky CM, & Hopgood R (2015). Chemotherapy-induced peripheral neuropathy: An algorithm to guide nursing management. *Clinical Journal of Oncology Nursing*, 17(2), 138–144.
- Watson R, Stimpson A, Topping A, & Porock D (2002). Clinical competence assessment in nursing: A systematic review of the literature. *Journal of Advanced Nursing*, 39(5), 421–431. [PubMed: 12175351]
- Woolery M, Bisanz A, Lyons HF, Gaido L, Yenulevich M, Fulton S, & McMillan SC (2008). Putting evidence into practice: Evidence-based interventions for the prevention and management of constipation in patients with cancer. *Clinical Journal of Oncology Nursing*, 12, 317–337. [PubMed: 18390467]
- Wright D (2005). *The ultimate guide to competency assessment in health care* (3rd ed.). Minneapolis, MN: Creative Health Care Management, Inc.

Example of learning how to correct a peer.**Situation:**

While observing a peer, you notice that she uses her hand to wave over the port area just cleaned with chlorahexidine in effort to dry it faster.

Question #1. How would you correct this behavior?

Acceptable response #1: I would ask the registered nurse to step away from the patient. Once away from the patient I would explain what I saw that was performed incorrectly and provide rationale for the correct procedure.

Question #2: Why not correct the staff member at the bedside?

Acceptable response #2: It is better to avoid correcting the staff member in front of the patient because this can erode confidence and trust.

Question #3: If the staff member was about to make an error that would harm the patient, what would you do?

Acceptable response #3: I would step in and take over but explain away from the patient why I did so. I would do this because the goals are to protect the patient, correct the practice, and maintain confidence and trust.

1. PowerPoint presentations should not exceed 20 slides (not counting, title page, objectives and references)
2. Learner objectives are written and presented on an opening slide
3. Content meets stated objectives
4. Test questions can be answered, directly or through inference, based upon content presented
5. 25% to 50% of test questions should demonstrate application or understanding; not merely simple validation of factual information.
6. An appropriate reference list must be included on last slide.

FIGURE 1.
Criteria for developing PowerPoint presentations and questions to assess competences related to cancer treatment side effects.

Ambulatory Infusion RN Competencies for 2015

Name: _____ Unit: _____

Date: _____

Competency	Met	Not Met
1. Body Surface Area Calculations		
2. Carboplatin (AUC) Dosing		
3. Implanted Port Access		
4. Implanted Port De-Access		
5. Blood Collection from VAD		
6. Blood Culture Collection from a VAD		
7. Venipuncture		
8. IV Insertion		
9. Chemotherapy Verification Process		
10. Administration of Chemotherapy IVPB		
11. Administration of Chemotherapy IVP		
12. Administration of Chemotherapy Long-lining		
13. Disposal of Chemotherapy		
14. Managing Chemotherapy Spills		
15. Continuous Infusion Pump Connect		
16. Continuous Infusion Pump Disconnect		
17. Dec clotting Venous Access Device with a Thrombolytic		
18. Investigational Medication Administration Checklist		
19. Intrathecal chemotherapy process		
20. Intravesical chemotherapy		

Employee Signature: _____ Date: _____

Validating Clinician: _____ Date: _____

Signature indicates the above procedure was observed and proper technique was demonstrated

Initials	Signature	Initials	Signature

FIGURE 2.
List of competencies for infusion nurses.

1. Have depth of knowledge and understanding of the skill being validated
2. Able to develop accurate descriptions of the behaviors they observe
3. Utilize approved skills checklist
4. Recognize and categorize the behaviors in terms of critical competencies
5. Communicate behavioral observations in valid and reliable written reports
6. Deliver results and/or coaching to participant assessee in one-on-one feedback sessions **after** completing validation
7. Able to demonstrate skills competencies at least to the level being delivered and assessed
8. Maintain objectivity throughout the validation process
9. Have developed assertiveness skills sufficient to ensure that they can interrupt a bedside/chairside validation process if a break or variation in assessee performance poses a threat to patient safety
10. Understand processes used for routing validation results to managers/AONQC
11. Understand and communicate responsibilities of managers for maintaining active employee competency files
12. Have completed "validator" training session

FIGURE 3.
Characteristics of competency assessors.

IVPB Administration of Chemotherapy – Competency Checklist*

Objective: To facilitate the provision of quality care to patients requiring the administration of chemotherapy via Intravenous Piggyback (IVPB) method. This competency shall assist in assessing and documenting the clinical competency of the nursing staff rendering care to the patient requiring the administration of chemotherapy via Intravenous Piggyback (IVPB) method.

Scope/Role: All Oncology Staff including: Chemotherapy trained nurses, attending oncologists, oncology fellows, approved non-physician providers.

Competency: This competency, in conjunction with the standards of Policies CLN 601, CLN 605 and CLN 628 will act as a clinical framework for the clinicians providing care to patients requiring the administration of chemotherapy via the IVPB method.

<u>Competency Check List:</u>	<u>Met</u>	<u>Unmet</u>
Name _____		
Title _____		
1. Verifies the accuracy of the chemotherapy drug with the Chemotherapy Order and Administration Record (COAR)		
2. Identifies patient using two patient identifiers (name, DOB) and compares it to the ID band according to policy CLN 619.		
3. Assembles equipment a. Prepared chemotherapy from pharmacy b. Secondary administration set c. Flush bag of compatible fluid with primed administration set d. Alcohol wipe e. Nitrile chemotherapy gloves f. Hospira Infusion Pump		
4. Washes hands		
5. Dons gloves		
6. Explains procedure to patient		
7. Primes administration set with compatible IV solution and insert cassette in Infusion pump.		

Competency Check List:	Met	Unmet
8. Attaches primary IV (flush solution) tubing into IV access site swabbing Y-site closest to the patient with 2 alcohol wipes and inserting lever lock		
9. Flushes line and observe for signs of infiltration, inflammation, or leakage		
10. Aspirates for blood return		
11. Cleanses secondary port of primary IV tubing with 2 alcohol wipes and allows to dry. Allows to dry for 15 seconds, then re-prepare infusion port again and allows to dry for 15 seconds.		
12. Attaches IVPB medication in bag secondary infusion set or syringe to secondary infusion port and Back primes until the tubing is filled.		
13. Selects line B. Programs desired drug name from Drug Library.		
14. Sets infusion pump to desired rate and volume.		
15. Have a second RN verify drug, rate, and volume to be infused.		
16. Start the infusion		
17. Removes gloves and wash hands		
18. Monitors patient, particularly during the 1st 15 minutes for signs of hypersensitivity or anaphylaxis.		
19. Documents, time started on the Chemotherapy Administration Record (COAR).		
20. Flushes the line upon completion of infusion with a minimum of 20mLs of flush.		
21. Documents stop time of medication on the COAR.		
22. Removes the chemotherapy and flush bag with tubing as one intact unit and disposes of everything including gloves in a chemotherapy disposal unit, yellow bin.		
23. Washes hands.		
24. Verbalizes where to document if adverse event occurs (progress note).		
Comments:		

Competency Check List:	Met	Unmet
Employee Signature _____		
Date _____		
Validating Clinician _____		
Date _____		
Signature indicates the above procedure was observed and proper technique was demonstrated.		

FIGURE 4.

Competency checklist for safe administration of chemotherapy via intravenous piggy back method.

*This procedure must be completed successfully a minimum of 3 times.

TABLE 1

Topical Areas for Competence Assessment

Topical Areas	Number of Slides Including Title Page and References	Number of Questions	Estimated Time to Complete Content and Test
Mucositis	19	7	20 minutes
Cancer-related fatigue	22	7	15 minutes
Psychosocial distress	20	6	20 minutes
Cancer pain	24	6	30 minutes
Chemotherapy-induced peripheral neuropathy	18	8	20 minutes
Nausea and vomiting	13	4	10 minutes
Constipation	12	6	15 minutes
Diarrhea	20	7	20 minutes
Radiation dermatitis	20	4	30 minutes