



The Leadership and Professional Development column has a slightly new look in 2014. Throughout the year, the authors will address ideas and strategies that were suggested in our January column—The Future of Oncology Nursing Research: Research Priorities and Professional Development. The following article is the first of a two-part series showcasing a group of oncology nurses who effectively implemented translational research findings on an inpatient oncology surgical unit using an interprofessional team approach.

## Implementing Evidence-Based Practice Using an Interprofessional Team Approach

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**T**ranslational research has been defined as “bench-to-bedside” research or “laboratory-to-clinical” research. Benefits to this type of research are that it fast tracks biomedical advances to improve the quality of care and life for patients with cancer (Callard, Rose, & Wykes, 2011). The challenge, however, is translating the research findings to the bedside in a timely fashion. Burns and Foley (2005) described an estimated 20-year delay in getting research findings translated to care delivery.

In 2010, The Institute of Medicine’s (IOM’s) report, *The Future of Nursing: Leading Change, Advancing Health*, offered recommendations for transforming the nursing profession that included expanding opportunities for nurses to lead and manage collaborative improvement efforts by building an infrastructure for the collection and analysis of interprofessional healthcare workforce data. The National Institute of Nursing Research (NINR, 2013) continues to promote the health of individuals, families, and communities with the expansion of the number of nurse scientists and the development of innovative interprofessional teams to address research on clinical practice, prevention of disease, management of symptoms, and improvement of palliative and end-of-life care.

The Oncology Nursing Society ([ONS], 2014) is a global leader in research, promoting best practice in cancer nursing; however, implementing that research at the bedside has been a challenge. The ONS Research Agenda highlighted seven priorities, including health

promotion, cancer symptoms, late effects of cancer treatment and long-term survivorship issues, end-of-life issues, psychological issues, nursing-sensitive patient outcomes, and translational science (Givens, 2009). Each of these priority areas is critically important to patients with cancer and families because patient outcomes are improved by 30% when interventions are developed from evidence generated in well-designed studies (Lobiondo-Wood & Haber, 2006). The future of oncology research is extremely complex and would benefit from building interprofessional teams to advance the science of cancer care at the bedside (Moore & Badger, 2014). Oncology nurses have an integral and essential role in the translation and implementation of research findings to the care of patients with cancer and their families.

### Interprofessional Collaboration

The implementation of evidence-based practice (EBP) and development of research activities have become more interprofessional in nature, with nursing providing leadership in both areas. Interprofessional collaboration is a process by which multiple disciplines share goals and responsibility toward improving patient outcomes, sharing leadership, and incorporating a holistic view of the patient (Petri, 2010). Goals for the patient are collaboratively set and evaluated. This approach to decision making, development of a treatment plan, and evaluation of goals often produces greater results than an accumulation of contri-

butions made without the benefit of the team setting (Pecukonis, Doyle, & Bliss, 2008). The focus has now been placed on improved quality of care and safety in clinical practice (Neville & Horbatt, 2008).

Interprofessionalism encourages all team members to contribute their expertise to produce the best outcomes possible for the patient, as well as improves role appreciation and job satisfaction between team members (Hall & Weaver, 2001). Pullon and Fry (2005) found that participants reported an increased understanding of their profession and felt encouraged to continue working in their field as a direct result of interprofessional education.

The complexity of care inherent in the inpatient oncology population requires effective interprofessional collaboration and integration of EBP at the point-of-care delivery. Oncology nurses should be prepared to collaborate with many disciplines to promote EBP at the bedside, continuously evaluate patient outcomes to identify areas for potential improvement, and participate and lead continuous quality improvement (CQI) projects. The American Nurses Credentialing Center ([ANCC], 2014) Magnet Recognition Program® challenges hospitals to focus on delivering quality care while integrating evidence-based best practices.

This two-part article showcases an EBP project implemented on a gynecologic oncology surgical unit in a Magnet

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- PLAN**
- Summarize evidence of patients with cancer and SCD use.
  - Define problem of SCDs not being on.
  - 59% compliant with SCDs
  - Identify barriers to have SCDs on.
  - Develop strategies to keep SCDs on.

- DO**
- Provide education on order for SCDs.
  - Place SCDs in standard order sets.
  - Provide instruction sheets on SCDs.
  - Provide patient with education sheet on importance of SCDs.
  - Provide education to staff.
  - Facilitate charge nurse rounding.

- STUDY**
- Complete data analysis.
  - More to come in part two of the article

- ACT**
- Plan changes for the next cycle.
  - More to come in part two of the article

SCD—sequential compression device

**Figure 1. Plan, Do, Study, Act—Phase One Plan and Intervention**

hospital in the southwestern United States. Using an interprofessional approach, the unit implemented the hospital's Plan, Do, Study, Act (PDSA) model for CQI to accomplish their goal. PDSA is one of many models that can be used for a process change that focuses on making improvements in outcomes by adjusting the system, not the individual. The four cycles of the PDSA model include: a plan or a change to be tested and implemented, to do or carry out the test or change, a study including data demonstrating how the change worked, and an act or a plan for the next cycle (Institute for Innovation and Improvement, 2013).

In this article, the initial approach to a change in practice, based on evidence, is described along with the first two components of the PDSA process (see Figure 1).

## Plan

Venous thromboembolism (VTE) is the most common cause of death after cancer-related surgery, with a death rate three times that of patients undergoing non-cancer-related surgery (Agnelli et al., 2006). The use of sequential compression devices (SCDs) has been a beneficial and cost-effective method for preventing VTE (Santoso, Evans, Lambrecht, & Wan, 2009); however, their effectiveness depends on the appropriate and consistent use of the devices (Summerfield, 2006). Failure to appropriately use SCDs can result in increased vulnerability to post-operative thromboembolism.

Inconsistent use of SCDs on this 28-bed inpatient gynecologic oncology surgical unit was noted during

interprofessional patient rounds. Complications, including VTE, following gynecologic oncology surgery can have significant effects on patient outcomes, lengthen hospital stays, increase costs to patient and hospitals, and potentially lead to patient death (Maxwell, Myers, & Clarke-Pearson, 2000; Whitworth et al., 2011). The physicians, the unit educator, the clinical nurse specialist (CNS), and unit nurses evaluated the standard process for implementing SCD use on the unit. The process, they learned, included multiple steps and numerous staff members.

To quantify these informal observations, 77 gynecologic oncology and urology patients admitted to the surgical oncology unit in a 30-day period were evaluated for SCD compliance. Criteria for SCD compliance required an active physician order for SCDs and that SCDs were in place, turned on, and functioning whenever the patient was in bed. Only 59% of patients met all criteria for SCD compliance. The audit results confirmed the opportunity for practice improvement. With input from the unit physician team, the CNS and unit nurse educator identified potential barriers for inconsistent patient compliance with SCDs. Those barriers included no active order for the SCDs, staff forgot to put the devices on, patients removed or did not replace the devices after returning to bed, patients and staff did not realize the importance of SCD use, and the SCD equipment was not available when needed.

Following the preliminary audits, a literature review was completed by the CNS and unit nurse educator. Findings

included information on the dangers of VTE, particularly in gynecologic oncology patients. These high-risk patients require both chemical and mechanical prophylaxis to prevent VTE (Einstein, Pritts, & Hartenbach, 2007), and providing patient education on SCDs increases compliance with recommended treatments (Olbrys, 2011).

An interprofessional journal club meeting was organized by CNSs, the unit nurse educator, and the unit attending physician. The purpose of the journal club meeting was to review the literature and discuss key points in the audit with the unit team.

Following the journal club, additional stakeholders were identified that would need to be included in the pre-implementation planning process to promote effective implementation and evaluation of the CQI project (see Table 1). Communication to stakeholders was facilitated through the unit's Shared Leadership Council and the organization's Patient Care Executive Committee.

## Do

The interprofessional team collaborated and developed interventions to improve compliance with SCD use on the unit. The agreed goal was to increase compliance from 59% to 100% on the unit.

Targeted interventions included educating physicians on writing SCD orders, providing laminated instruction sheets on SCDs in the patient rooms, providing education to patients on the importance of the SCDs, providing education to staff, and facilitating

**Table 1. Interprofessional Project Stakeholders**

Stakeholder	Role or Function
Attending physician	<ul style="list-style-type: none"> <li>Identified the problem</li> <li>Reviewed evidence</li> <li>Developed order sets</li> <li>Facilitated interprofessional journal club</li> <li>Collaborated with CNS and educator to develop interventions</li> <li>Provided education to staff and patients</li> </ul>
Biocommunication department	<ul style="list-style-type: none"> <li>Assisted with production of admission video with education on SCDs with the staff RNs</li> </ul>
Central supply	<ul style="list-style-type: none"> <li>Evaluated barriers to getting SCD machines to the units</li> </ul>
Charge nurse	<ul style="list-style-type: none"> <li>Rounded on patients every shift to make sure SCDs are in room and are on correctly</li> <li>Notified team if the SCD machine was not in the room</li> </ul>
CNS and unit educator	<ul style="list-style-type: none"> <li>Led project</li> <li>Identified the problem</li> <li>Reviewed evidence</li> <li>Collected data</li> <li>Developed order sets with physician and informatics</li> <li>Organized interprofessional journal club</li> <li>Developed interventions for proposed plan</li> <li>Collaborated with purchasing and legal increase supply of SCD machines</li> <li>Provided education to staff and patients</li> <li>Worked on script and developing admission video</li> </ul>
Housekeeping	<ul style="list-style-type: none"> <li>Developed process for disinfecting and storing SCDs in patient rooms</li> </ul>
Infection prevention	<ul style="list-style-type: none"> <li>Evaluated safest way to clean the SCD machines for housekeeping</li> </ul>
Informatics	<ul style="list-style-type: none"> <li>Evaluated order sets</li> <li>Placed order for SCD in appropriate order sets</li> </ul>
Legal	<ul style="list-style-type: none"> <li>Approved contract for more SCD machines</li> </ul>
Nursing administration or management	<ul style="list-style-type: none"> <li>Approved and supported paid time to work on increasing compliance of SCD use</li> </ul>
Patient and family	<ul style="list-style-type: none"> <li>Reviewed process and suggested best education approach</li> <li>Reapplied SCD when appropriate and notified nursing staff when needed</li> </ul>
Patient Care Executive Committee	<ul style="list-style-type: none"> <li>Provided an avenue to educate leaders about SCD program</li> <li>Facilitated discussion about program with multiple departments</li> </ul>
Patient care technicians	<ul style="list-style-type: none"> <li>Assisted with education to the patient and ensuring SCDs are on at all times when patient is in bed</li> </ul>
Purchasing	<ul style="list-style-type: none"> <li>Negotiated with manufacturer to get more SCD machines</li> </ul>
Shared Leadership Council	<ul style="list-style-type: none"> <li>Provided an avenue to discuss challenges with the SCD program and deliver information to all staff members</li> <li>Practiced continuous QI project on SCDs</li> <li>Managed change for unit</li> <li>Promoted shared communication</li> </ul>
Staff nurses	<ul style="list-style-type: none"> <li>Educated the patients on use of SCDs</li> <li>Evaluated if SCDs are on correctly</li> <li>Developed and acted in admission video</li> </ul>
CNS—clinical nurse specialist; SCD—sequential compression device; QI—quality improvement	

charge nurse rounding on SCD use. The physician, CNS, and unit nurse educator collaborated with the nursing informatics specialist to place the SCD order in admission order sets.

## Summary

Integrating EBP to affect and improve patient care is a complex process that requires an interprofessional team, a continuous systematic approach, and a commitment from all potential stakeholders to evaluate and implement the change. The PDSA quality improvement model provided an effective structure for measuring SCD compliance in a high-risk oncology surgical unit. The first phase of the project, presented here, included the interprofessional team identifying a clinical problem, reviewing the literature, and disseminating key findings to team members, as well as key stakeholders planning and implementing initial interventions.

Part two of this article, coming in September 2014, will present the implementation of phases two and three of the SCD program, as well as evaluation and future goals of this evidence-based project.

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**Key words:** interprofessional approach; evidence-based practice; translational research

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