



Specialty Nomenclature

A Worthwhile Challenge

Joy Don Baker, PhD, RN, CNOR, CNAAC, BC

Congratulations to the Society of Gastroenterology Nurses and Associates (SGNA) for the decision to develop a Minimum Data Set (MDS). Language is a very powerful tool and is critical for the diversity of nursing language to be articulated for clear understanding and interpretation. The Association of Perioperative Registered Nurses (AORN) pursued a variation on data set development from that of SGNA. This paper reflects an overview of AORN's approach.

As a nurse practicing in the perioperative setting for the past 30 years, I recognize the importance of effectively communicating with not only professionals working within the setting, but also those external to the setting, as paramount to positive patient outcomes. There is limited data about nursing contributions to patient outcomes and a consistent language assists with collection and analysis of this data (Beyea, 2002).

Nursing data elements such as "The patient is free from signs and symptoms of injury caused by extraneous objects (O2)," (Beyea, 2002, p. 85) is critical to the outcomes of patients in any perioperative setting. Interventions the nursing staff takes regarding the prevention of potential injury can be used to demonstrate the value of nursing in the setting. The Perioperative Nursing Data Set (PNDS) was a critical and timely initiative for AORN to clarify definitions so all parties understand the meaning of each data element in the specialty language.

PNDS Development

In 1993, AORN set out to "describe, define, and establish a data set that represents perioperative nursing practice" (Beyea, 2002). The work of numerous nurses culminated in February 1999.

The PNDS received recognition from the American Nurses Association (ANA) Committee on Nursing Practice Information Infrastructure as a data set useful in the practice of nursing.

The PNDS is a clinically relevant and empirically validated standardized nursing language. It consists of data elements that are clearly defined, common to all cases, and consistent across time. The data set relates

to the delivery of care in the perioperative setting at any point in time and is appropriate for use in any surgical setting (Beyea, 2002).

The PNDS is currently one of 13 vocabularies recognized by ANA (2004). Other examples include the Nursing Interventions Classification (NIC) system; Nursing Diagnoses, Definitions, and Classification (NANDA); Nursing Outcomes Classification (NOC); and Systemized Nomenclature of Medicine Reference Terminology/Clinical Terms (SNOMED RT/CT).

Mapping of the PNDS vocabulary with SNOMED RT/CT (SNOMED, 2004) to assist in communicating the vocabulary to other health disciplines was undertaken as a collaborative agreement in 2003 (Beyea, 2002). This allows translation to and with other health disciplines' coding systems such as the International Classifications of Diseases (ICD) or Private Communication Technology (PCT) protocol codes used by hospitals and physicians.

During the 2003 AORN Congress Technical Exhibit in San Diego, California, 11 software vendors demonstrated products using the PNDS. Partnering with the vendors has been a significant step for the AORN's implementation process of the PNDS. The software vendors understood the value of the coding process used and have worked with AORN to create useful tools for nursing to evaluate and analyze the outcomes of nursing practice in the perioperative settings. An example of how the coding process can be used in the setting is illustrated by the Cerner Corporation in the Perioperative Documentation screen in Figure 1. The codes can either be visible or not depending on the facility's preferences. Each element can be tracked and variances in patient outcomes associated with nursing diagnosis and interventions analyzed for effectiveness of practice protocols.

A Patient-Centered Language

The PNDS is a collection of data elements providing a common means of communication representing concepts of the perioperative nursing process (Beyea, 1999; Kleinbeck, 2004). Seifert (1999) proposes using the PNDS as a foundation to teach perioperative nursing that enables focus on

Perioperative Documentation

Regier, William - 000000459 Opened by Villanueva, Christine - Patient Positioning

Task Edit View Document Pick List Help

As Of: 4:00 PM

Regier, William
 Age: 63 Years Sex: Male Location: PreOp: PreOp Allergies
 DOB: 5/16/1940 MRN: 000000459 Fin Number: 0018660 AM Admit 0018660

Perioperative Doc Patient Info PACU Doc Orders Results PeriOp Summary Intake and Output Clinical Notes Forms MAR Pathways Acquired Data

Intraoperative Record

Documentation Pick List

- SurgiNetGrp
 - Blood Product Administration
 - Case Attendance
 - Case Times
 - Catheters, Drains, Tubes
 - Cautery
 - Consent Verification
 - Counts
 - Departure From OR
 - Dressing
 - General Case Data
 - Intake and Output
 - Irrigation
 - IVs
 - Medications
 - Patient Positioning**
 - Prosthetic Devices
 - Skin Prep
 - Specimens
 - Surgical Procedure
 - Tourniquet
 - Transport to OR
 - X-Rays and Images

Nursing Diagnosis: [X<29] Risk for injury [X<40] Risk for perioperative positioning injury]

Nursing Interventions: [I196] Positions the patient [I138] Evaluates for signs and symptoms of injury as a result of positioning [I141] Evaluates for signs and symptoms of physical injury]

Body Position: [Supine] Right Arm Position: [Perpendicular]

PNDS Codes

MS Shell Dlg 10

Segment Text Pre-Care Text Post-Care Activity Case Documentation Comments Public Scheduling Comments

FIGURE 1 • Perioperative Documentation of PNDS Codes. Figure provided by Cerner Corporation.

evidence-based practice and that identifies perioperative nursing's core competencies (Seifert, 1999).

The PNDS is comprised of four patient domains: 1) Safety; 2) Physiological; 3) Behavior responses: Individual and family—Knowledge & Rights/Ethics; and 4) Health System. The first three domains are identified as nursing data elements. The associated nursing diagnoses, interventions, and outcomes relative to the perioperative patient and systems reside in these domains. The PNDS model (Figure 2) reflects these domains and illustrates the distinction between the data fields of the nursing data elements and the structured data elements associated with administrative concerns and clinical processes, perioperative benchmarks or desired outcomes, and institutional report cards. This health system quadrant represents the systems used and in which the perioperative care is delivered (Beyea, 2002). Beyea states

within the Model, concentric circles expand beyond the patient and family, representing the perioperative nursing domains and elements. The Model illustrates the relationship between the patient, family, and care provided by the perioperative professional nurse (Beyea, 2002).

Each element of the PNDS has a unique identifier, and no unique identifier may be used more than once. These unique code begins with a letter such as "D" for domain; "O" for outcomes; "I" for intervention; and "X" for nursing diagnoses. Each is followed by a numerical value (Beyea, 2002) (Figure 3).

Benefits of Using the PNDS

Using the PNDS begins with the desired outcome in mind. The PNDS is simply a codification, not a new way of practicing perioperative nursing (Battie, 2002). This codification process, however, can clearly describe perioperative competencies which can be related to behavior-oriented job descriptions. The outcomes statements can be used as quality indicators which can assist in determining improvement strategies for practice. Department policies link patient outcomes and quality indicators with practice. Clinical pathways, documentation, and reports are other areas the PNDS has value in the clinical setting.

Teaching patients or staff is another way in which the PNDS can be used. "Nursing faculty can use the PNDS effectively in curriculum to facilitate student learning about the care and management of patients before, during, and after surgery" (Baker, 2002). By using the nursing process and the four domains as a framework of the content to be delivered, a clear method of measuring outcomes can be determined and progress of the student demonstrated as they incorporate the PNDS language into their practice. If teaching staff about the intraoperative care of the peripheral vascular surgery patient, the content can be centered around the Patient outcomes/nursing interventions specific to the peripheral vascular surgery patient (Shea, 2002) using the PNDS code system.

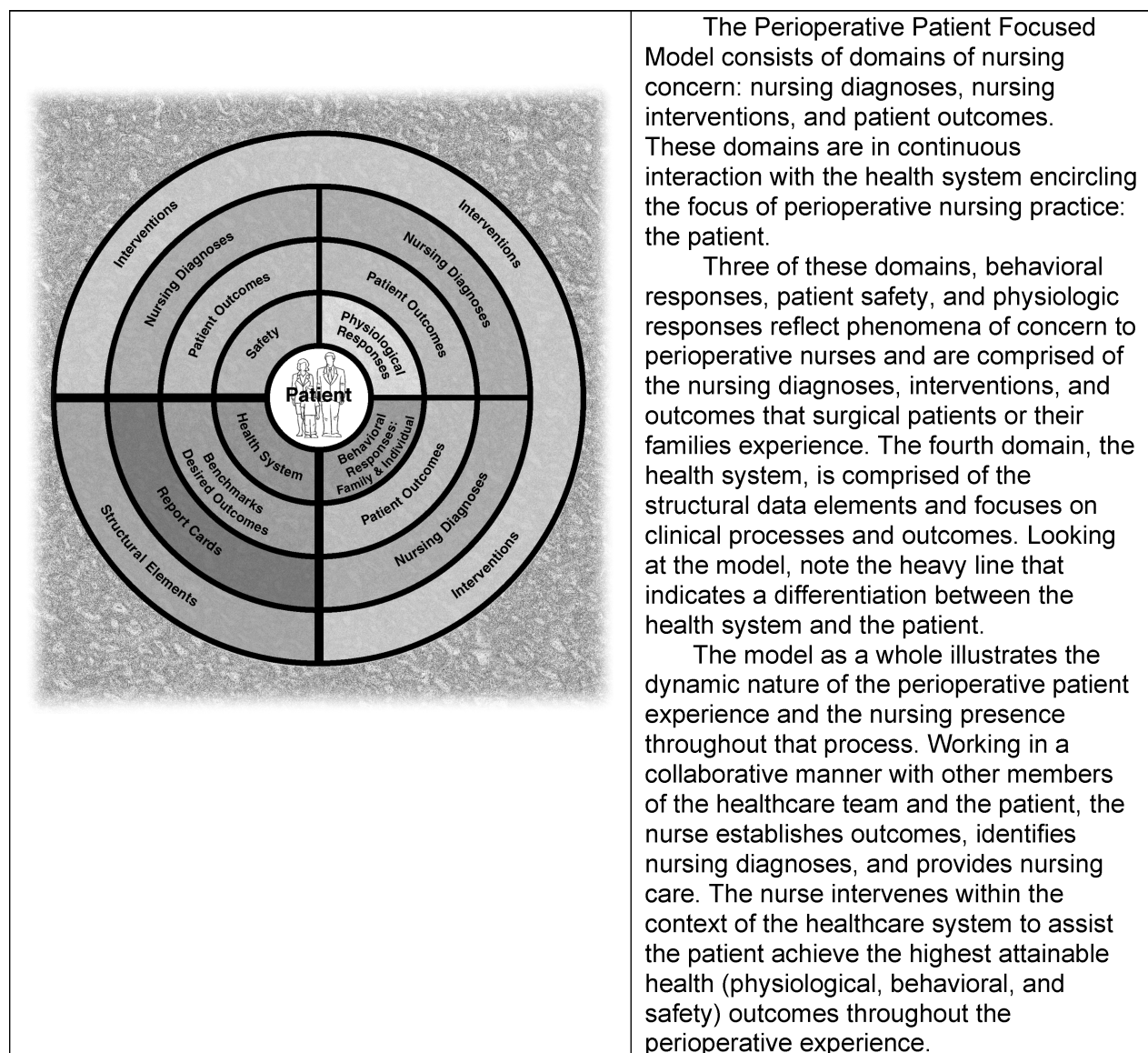


FIGURE 2 • The Perioperative Patient Focus Model. Reprinted with permission from AORN, *Perioperative Nursing Data Set*, 2nd ed. Copyright 2002 © AORN, Inc., 2170 S. Parker Rd., Suite 300, Denver, CO 80231.

Research and benchmarking are other ways the PNDS can be used. In the fall of 2001, nursing leaders from Connecticut came together to explore the PNDS as a model for benchmarking of perioperative nursing services. They tar-

geted a subset of the PNDS for use in the proposed benchmarking project (Altaffer, Bobick, Kosturko, Schirmer, & Violo, 2002) using a Plan-Do-Check-Act process. During the *PLAN*ning phase, they brainstormed ideas and sought out information in which the group needed to become familiar, developed a collection tool, and established measurable outcomes. In the *DO* phase, they reviewed the PNDS and created a check list that could be used to access the documentation of specific perioperative nursing diagnoses, interventions, and outcomes. Four cases were compared involving both minor and major cases with specific nursing diagnoses, interventions, and outcomes. Ultimately their plan for the *ACT* phase is to offer the Connecticut hospitals the opportunity to participate in the benchmark project based on the PNDS model (Altaffer et al.).

During the AORN Congress 2004, Battie and Dopp presented a *PNDS Dashboard* that demonstrated the impact of this specialty nursing language on outcomes (Battie &

PNDS Domain Codes

- D1: Safety
- D2: Physiologic response
- D3: Behavioral response
- D4: Human systems

FIGURE 3 • PNDS Domain Codes.

Dopp, 2004). This type of activity supports the need for consistency in communication and documentation that can be evaluated for effectiveness of interventions relative to patient outcomes.

Future Considerations

Ever-changing technological advances such as robotics and genetic engineering will necessitate continuous review for AORN to improve and update the PNDS. AORN is addressing questions such as the need for structural elements to be documented on the clinical record (e.g., time and the risk of infection) or be addressed in a patient-centered domain or in the health system domain. Also, if the element can be addressed in both domains, how will the Model need to be adapted to best meet this issue (Beyea, 2002)?

Moving towards standardization of documentation, whether initiated as a nursing language or minimum data set, is of paramount importance to the practice of nursing. There are many uses for a systematic approach to documentation, none more important than improving the quality of patient outcomes. Congratulations on the continued efforts of the SGNA to achieve the desired outcome for the specialty.

References

- Altaffer, A., Bobick, N., Kosturko, M., Schirmer, S., Ormstedt, S., & Violo, G. (2002). Using the PNDS for benchmarking. In S. C. Beyea (Ed.), *Perioperative Nursing Data Set: The perioperative nursing vocabulary*. (pp. 75-78). Denver: AORN, Inc.
- American Nurses Association (ANA). (2004). *NursingWorld: Nursing Information & Data Set Evaluation (NIDSEC)*. Retrieved Nov. 28, 2004, from <http://www.ana.org/nidsec/prtindex.htm>
- Baker, J. D. (2002). A standardized clinical language for teaching a perioperative elective. In S. C. Beyea (Ed.), *Perioperative Nursing Data Set: The perioperative nursing vocabulary* (2nd ed., pp. 63-70). Denver: AORN, Inc.
- Battie, R., & Dopp, A. (2004). Using the Perioperative Dashboard/PNDS to demonstrate the RN's impact on outcomes. Paper presented at the AORN Congress, San Diego, CA.
- Battie, R. (2002). Using the PNDS in our daily work: A successful journey. In S. C. Beyea (Ed.), *Perioperative Nursing Data Set: The perioperative nursing vocabulary* (2nd ed., pp. 38-42). Denver: AORN, Inc.
- Beyea, S. C. (Ed.). (2002). *Perioperative nursing data set: The perioperative nursing vocabulary*. (2nd ed.). Denver: AORN, Inc.
- Beyea, S. C. (1999). Standardized language: Making nursing practice count. *AORN Journal*, 70(5), 831-838.
- Kleinbeck, S. V. M. (2004, Mar 24, 2004). *Integrating the PNDS into a perioperative clinical setting*. Paper presented at the AORN Congress 2004, San Diego, CA.
- Seifert, P. (1999). The Perioperative Nursing Data Set power is knowledge. *AORN Journal*, 70(1), 8-11.
- Shea, K. G. (2002). Integrating a new language into the OR. In S. C. Beyea (Ed.), *Perioperative Nursing Data Set: The perioperative nursing vocabulary* (pp. 42-47). Denver, CO: AORN, Inc.
- SNOMED. (2004). Historical Perspectives: SNOMED Milestones, 1965-2004. Retrieved Nov. 28, 2004, from <http://www.snomed.org/about/perspectives.html>