Utilizing a Standardized Language in an EHR to Collect Data for Quality Programs, Research, and Reporting

4th Annual NDNQI Data Use Conference

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Objectives

- Describe mapping standardized nursing language to traditional record labels and values in an EHR.
- Identify how standardized data elements can facilitate research, quality initiatives and reporting.

Standardized Languages

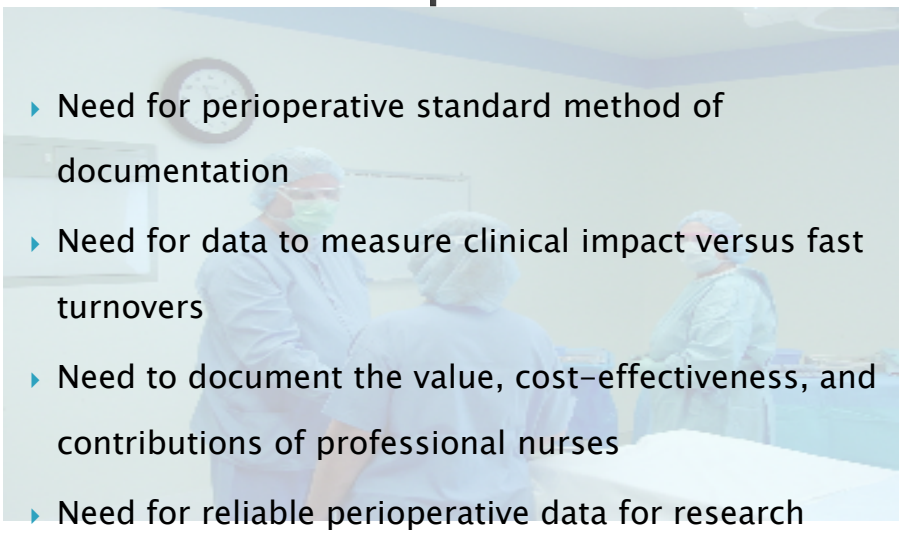
- Where is the valid, reliable, interpretable, and reusable data from the patient record?
- Is the clinical record a data mine or a data cemetery? (Ozbolt, 2000)
- Standardized data allows nurse scientists to compare interventions effectiveness on patient outcomes.

What is PNDS?

Definition

- Clinically useful data set that describes nursing practice
- Controlled vocabulary
  - Single concept
    - Concept is the embodiment of a particular meaning
    - Has only one coherent meaning
    - Concept Permanence
    - Unique identifier
    - Formal definitions

WIIF for Perioperative Nurses



- Need for perioperative standard method of documentation
- Need for data to measure clinical impact versus fast turnovers
- Need to document the value, cost-effectiveness, and contributions of professional nurses
- Need for reliable perioperative data for research

Advantages for Nursing Executives

- Provides reliable homogeneous data
- Supports benchmarking activities across settings & institutions
- Comparison of clinical data from large number of patients/facilities
- Provides valid clinical data for decision making & policy formulation
- Provides standardized language & definitions to develop databases to support the evaluation of resource utilization
- Assists in the examination of the relationship of cost to quality & effectiveness

Why PNDS?

- Provides clarity, preciseness, and consistency
- Makes perioperative practice visible
- Reflects clinical workflow
- Need for reliable and valid perioperative data
- Enables data capture to compare effectiveness
- Integrated into the electronic health record (EHR)

ANA Recognition of PNDS

- 1999 PNDS recognized as a terminology that describes perioperative nursing practice

- Criteria:
  - Supports one or more components of the nursing process
  - Unique contribution to nursing practice
  - Clinically relevant
  - Tested for reliability and validity
  - Supports one or more of the nursing domains
  - Unique identifiers

PNDS Recognized by:

- National Library of Medicine
- American Society for Testing & Materials
- American National Standards Institute
- HL 7
- Federal agencies
  - National Committee on Vital & Health Statistics
  - Health Care Financing Administration
  - National Center for Health Statistics
- Mapped in SNOMED

PNDS Building Blocks

- Consists of data elements that are:
  - Clearly defined
  - Common to all procedures
  - Consistent across time
  - Related to the delivery of care
  - Appropriate for use in any surgical setting

Outcomes

- Outcomes reflect observable, measurable, physiological, and psychological responses to perioperative nursing interventions
- **Unique identifier**

Nursing Diagnosis

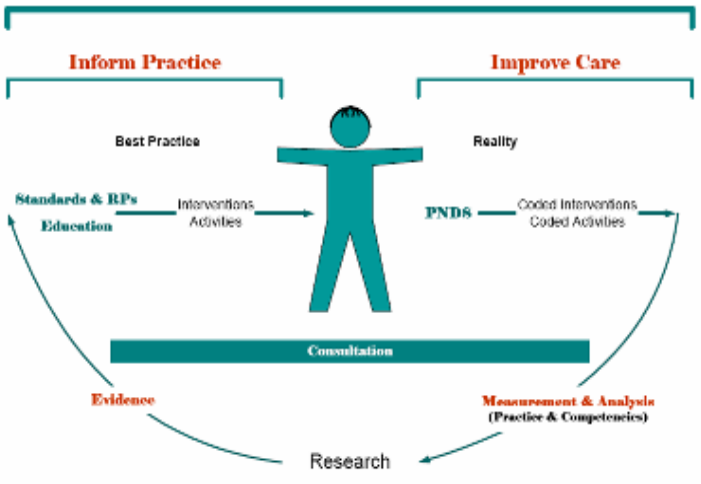
- Definition

  "Concise clinical judgment label of a perioperative patient problem formulated for the purpose of directing nursing actions intended to achieve the expected outcomes."
- **Unique identifier**

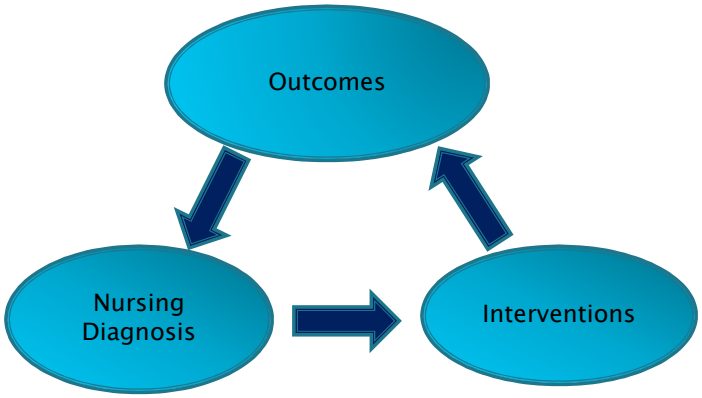
Interventions

- Nursing treatments, actions and interventions
- Applicable across all perioperative settings
- Patient care focused
- Multiple activities
- **Unique identifier**

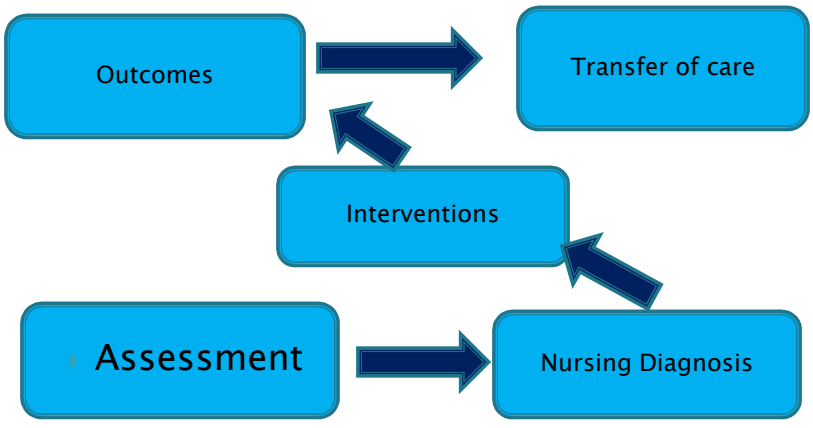
Evidence based cycle



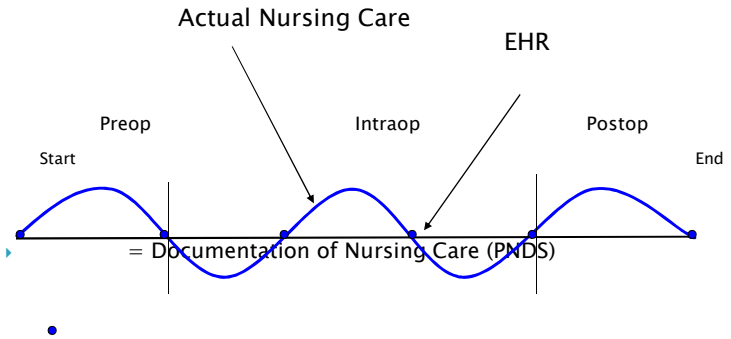
Method of Entry into PNDS



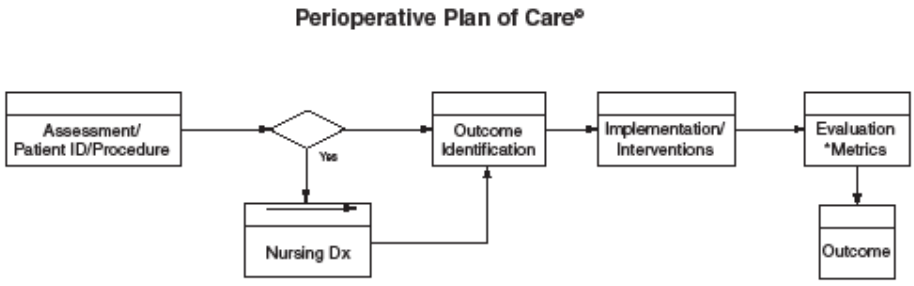
How the Nurse Thinks



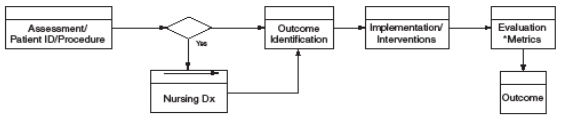
Intersection of nursing care with documentation



Nursing Process and Workflow



Perioperative Plan of Care[6]



- *Assessment*
  - Identifies physical alterations that require additional precautions I64
  - Verifies presence of prosthetic or corrective devices I127
- *Nursing Diagnosis*
  - Risk for perioperative positioning injury X40
- *Outcome Identification*
  - 05 The patient is free from signs and symptoms of injury related to positioning
- *Implementation*
  - Positions the patient I96
- *Evaluation*
  - Evaluates for signs and symptoms of injury as a result of positioning I38
- *Outcome*
  - 05 The patient is free from signs and symptoms of injury related to positioning

Individualizing Patient Care

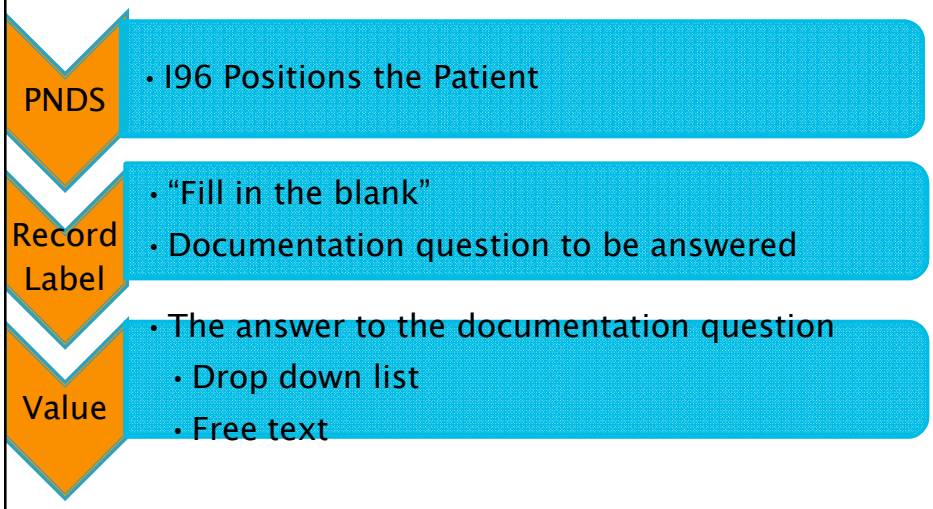
- 24 years old
- Healthy
- Height 6'2"
- Weight 190
- Male
- Procedure – Right Inguinal herniorrhaphy

•Risk for impaired skin integrity X51
•Risk for perioperative positioning injury X40

- 75 years old
- Frail
- Left side paralyzed – stroke
- Height 6'2"
- Weight 130
- Male
- Procedure – Right Inguinal herniorrhaphy

•Impaired physical mobility X34
•Ineffective tissue protection X44
•Ineffective tissue perfusion X61

PNDS Grouping



Standardized Documentation Central Repository

- Provide reliable clinical data
- Comparison of clinical data from large number of patients/facilities
- Supports databases to measure outcome data, monitor & evaluate quality & effectiveness of care
- Supports benchmarking activities across settings & institutions
- Examination of the relationship of cost to quality
- Facilitate operational management