CHAPTER 22

EVIDENCE BASED PRACTICE IN THE PERIANESTHESIA SETTING

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Purpose: The perianesthesia nurse must be able to provide evidence based care to patients and diminish reliance on tradition. This skill requires that the perianesthesia nurse be able to define practice questions and then locate, evaluate and apply the relevant evidence to daily practice. The perianesthesia nurse must also be cognizant of potential barriers to the implementation of evidence based practice (EBP).

Competency Statement: The perianesthesia nurse will be able to define evidence based practice (EBP) and will be able to collect, interpret and integrate evidence into daily practice. The perianesthesia nurse will be able to identify potential barriers to EBP in their practice.

Criteria:
1. Describe evidence based practice (EBP).

   Evidence based practice:
   - Uses the best available information for clinical care
   - Includes complex decision making that accounts for available evidence, clinical expertise, patient preferences and situations
   - Is a significant part of safe patient care
   - Is utilized to promote quality clinical decisions, as well as cost-effective care in clinical settings
   - Enhances and fosters clinical expertise of nurses
   - Involves a way of thinking and practicing that requires nurses to ask: “Where is the evidence for this practice?”
   - Asks nurses to weigh the validity and reliability of their own daily practice activities
   - Requires ongoing skill building to become competent
   - May take up to 15 years to have new knowledge fully integrated into clinical practice

Evolving emphasis on EBP
- The majority of healthcare professions place a high emphasis on evidence
- National Institute of Nursing Research (NINR) was founded in 1986. The NINR increased focus on nursing research, specifically clinical issues
- Other organizations, including The Joint Commission (TJC), the Institute of Medicine (IOM) and the Agency for Healthcare Research and Quality (AHRQ) emphasize the need to include evidence into clinical decisions
- Evidence based clinical practice guidelines provide a key link between evidence based knowledge and healthcare practice and offer a mechanism to advance the quality and equity of patient care
- Market conditions, such as pay for performance and consumer awareness, have increased the need to validate practice with evidence
- Expanding use and access to technology and the availability of information
- Growing interest in clinical governance and management led decision making
- The American Society of PeriAnesthesia Nurses (ASSPAN) has a strategic commitment for their standards, practice recommendations and guidelines to be evidence based

The Process of EBP
- There are four (4) primary nursing models for the process of EBP:
  - The Stetler Model
  - The Iowa Model
  - The Rosswurm-Larabee Model
  - The ACE model
- Each of these models encompasses four (4) steps/skills:
  - The identification of a clinical issue and the development of a question that can be used to search the literature
– The ability to search and evaluate the evidence on a given clinical topic
– The ability to rank the evidence and determine the strength of the evidence
– The ability to evaluate the clinical effectiveness of the evidence after being used in the clinical setting

Challenges for nurses relative to EBP:
• Patients expect nursing care based on best practice evidence
• Focus of nursing is different than medicine
• There is limited experimental research related to nursing issues. Many clinical phenomena cannot be studied using experimental techniques
• The art of nursing should never be underestimated. This body of evidence, often reflected through qualitative research, needs to be studied and included
• The nurse needs to consider these questions daily:
  – Why are we doing it this way?
  – Is there a better way to do it?
  – What is the evidence for what we do?
  – What constitutes best practice?
  – What practice guidelines are available to support my practice?
  – Would a new process be more effective than the old process?

2. Identify the process for developing an EBP question.

There is a need for a succinct question that can be used to search the literature for evidence. The perianesthesia nurse needs to have a question that is focused and structured.

The question is so important because it:
• Focuses the problem
• Focuses the population
• Clarifies the intervention of interest
• Clarifies the outcome of interest
• Focuses the evidence search

Background questions
• Broader
  • Provide background or foundational information
  • Evidence sources

Foreground questions
• Focus on more specific knowledge
• Diagnosis
• Treatment
• Outcome
• Sources of evidence

Structuring the answerable question
P: Patient population/problem
I: Intervention/area of interest
C: Comparison intervention/status
O: Measurable outcome of interest
P: Patient population/problem
   • What is the nurse trying to address
   • Characteristics/condition
   • Description of the patient or the target disorder of interest
   • Some examples of patient population or problem
     – Age
     – Gender
     – Ethnicity
     – Disease/disorder

I: Intervention/area of interest
   • What will the nurse do for the patient?
   • Drugs, surgery, diet, exercise
   • Some examples of interventions of interest for nursing
     – Exposure
     – Treatment
     – Patient perception
     – Diagnostic test
     – Prognostic factor

C: Comparison intervention/status (this is an optional inclusion)
   • Alternatives to the chosen intervention?
   • Against other interventions, gold standard or no treatment
   • Some examples of interventions/status
     – No disease
     – No intervention/placebo
     – Another prognosis
     – Another intervention
     – Another population/risk factor

O: Measurable outcome of interest
   • What will be improved for the patient?
   • Less risk of fracture, fewer hospitalizations, etc.
   • Must be measurable
   • Some examples of measurable outcome of interest
     – Risk of disease
     – Accuracy of diagnosis
     – Rate of occurrence of adverse outcome/complication
     – Patient satisfaction/perception
     – Costs/use of resources

3. Describe the process for searching and evaluating the evidence.
   Identify a clinical problem and develop a question
   • Evaluate daily practice—is it based on evidence or tradition? Are you using the best care possible?
   • Use the PICO method to devise a researchable question
   • Develop key words for evidence search. Key words usually include the four (4) PICO components
     First search for a high quality, evidence based clinical practice guideline.
• Always best to look for a well-established, high quality evidence based clinical practice guideline to apply to the clinical question

• Sources for high quality clinical practice guidelines include:
  – National Guideline Clearinghouse (http://www.guidelines.gov)
  – Professional specialty practice organizations and their websites
  – Journal publications

• The quality of clinical practice guidelines can be evaluated using the AGREE instrument (available at: www.agreecollaboration.org). Guideline components evaluated by this instrument include:
  – Scope and purpose
  – Stakeholder involvement
  – Rigor of development
  – Clarity and presentation
  – Application
  – Editorial independence

If a high quality guideline is not available, then one must search the evidence.

• Working with a librarian or a research nurse can be very helpful in this step

• Databases
  – Consider types of journals in database. Some examples of good databases for nursing issues are CINAHL and Medline
    • ASPAN members have access to the Joanna Briggs Institute (JBI)
    • The Cochrane Library has synthesis of many published reports
    • Google Scholar (http://scholar.google.com/)
  – The journals, Evidence Based Nursing and Worldviews on Evidence Based Nursing, are other good references for nurses
  – Good keywords are essential in this step. Be mindful that each database will probably index differently so different key words may be needed
  – A good systematic review or meta-analysis is the highest level of evidence for nursing problems

• Hand-searching
  – Know which journals to review and how many years to review

• Reference lists
  – Review reference lists from articles that met the review inclusion criteria

• Contacting researchers
  – Can be used for additional depth or clarification on issues or ongoing studies

• Unpublished data
  – This unpublished data could include dissertations and thesis which apply to the EBP question
  – Abstracts from conferences may also prove beneficial

Evaluating the evidence

• Must review the evidence for its applicability to the EBP question, as well as its strength and quality

• The evidence review should be a group effort

• There are various “strength of evidence” tables available
  – Evidence is ranked in a hierarchy, with systematic reviews at the top and consensus opinion of respected authorities at the bottom
  – ASPAN has used the Joanna Briggs Institute (JBI) FAME levels of evidence which includes examining clinical care in regards to its feasibility, appropriateness, meaningfulness and effectiveness. ASPAN members can access these through the JBI link on the ASPAN website (www.aspan.org)
• The quality of the study should be reviewed
  – This should include issues with sampling, design, limitations
  – There are various critical appraisal tools available for reviewing the quality of a study:
    • Systematic Reviews: The Overview Quality Assessment Questionnaire (OQAQ)
    • Meta-Analysis: The Quality of Reporting of Meta-analysis (QUOROM)
    • Randomized controlled trials (RCTs): The Consolidated Standards for Reporting of Trials (CONSORT)
    • Observational studies: Strengthening the Reporting of Observational Studies in Epidemiology (STROBE)

• Additional review of research designs should be completed
• Identify if the evidence supports a change in clinical practice
• A reminder: the evidence can assist, but can never replace, sound clinical reasoning of the nurse and other healthcare providers

Evaluate the practice
• It is important that outcomes be evaluated before and after the implementation of change to practice
• Outcomes should include the patient’s evaluations of their experience
• Evaluate and refine on one unit prior to multiple units

4. Discuss the barriers to evidence based practice.

Individual barriers
• Lack of skill set for asking the question, searching for the evidence, reviewing the evidence and/or integrating it into clinical decision-making
• Lack of perceived value for research and evidence based practice
• Lack of time
• Perception that research is too complex
• Lack of informatics skills and/or difficulty in accessing research materials

Organizational/systematic barriers
• Lack of support to implement EBP recommendation
• Lack of access to promote research, such as contact with a research nurse
• Lack of access to databases

Bibliography


