USING EVIDENCE
TO ANSWER
CLINICAL
QUESTIONS

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**OBJECTIVES**

- Define research utilization (RU), evidence-based practice (EBP), and evidence-based nursing practice (EBNP).
- Explore the connection between a clinical nursing question and the science to answer the question.
- Prepare for translating nursing science into practice using the PICO process.
Research Utilization (RU)
- RU is the process of translation of the results of research into practice of nursing care
  Polit & Beck, 2010

Evidence-based Practice (EBP)
- EBP is defined as basing nursing care decisions on the best available evidence
  Polit & Beck, 2010

Evidence-based Nursing Practice (EBNP)
- EBNP is the integration of best evidence, nursing expertise, and the values and preferences of individuals, families, and communities.
  Sigma Theta Tau International, 2003
FIRST STEP OF EBP

- Ask the “burning question”.
  - What clinical question needs to be answered?

- Formatting your question using PICO.
  - Patient Population.
  - Intervention or area of interest.
  - Comparison intervention or comparison group.
  - Outcome.

Melnyk & Fineout-Overholt, 2008
LOOK FOR THE SCIENCE

- Where to begin your search?
  - Virginia Henderson International Nursing Library

- Find one research report on your topic
  - National Guidelines Clearinghouse
  - Cochrane Database of Systematic Reviews
  - PubMed
EVALUATING THE REPORT

- Does research report answer your question?
- Does individual research study meet criteria?
  - Validity
  - Relevance
  - Applicability
- Is the evidence strong enough to support a practice change?
- How strong is the evidence?
LEVELS OF EVIDENCE - QUANTITATIVE RESEARCH

- Systematic Reviews
- Randomized Controlled Trials
- Cohort Studies
- Case-Control Studies
- Case Series, Case Reports
- Editorials, Expert Opinion
The first step is to answer the clinical question using scientific evidence.

Answering the clinical question can serve as the first step toward evaluating current individual and institutional clinical practice.

Answering the clinical question may result in introducing and piloting a change in clinical practice if current practice is not evidence-based.
What is the problem?

- Blood culture contamination can delay treatment for patients and raise the cost of health care. You want to know if your facility’s skin preparation is the best evidence-based nursing practice (EBNP).

Think about formatting your question using PICO.

- **P**atient Population.
- **I**ntervention or area of interest.
- **C**omparison intervention or comparison group.
- **O**utcome.
WHERE TO BEGIN?

Begin your search at the Virginia Henderson International Nursing Library.

http://www.nursinglibrary.org/vhl/
Check it out! Quick guides make it easy!
Browse Categories make your searches easier!
Advanced search in the Virginia Henderson International Nursing Library

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-- Author
-- Date issued
-- Date submitted
-- Subject
-- Conference year
-- Researchers

Virginia Henderson International Nursing Library > Advanced search

Advanced search

Search:

Enter Search
Began with a related search term:
- “skin preparation”

31 results were found
- Read titles and click on abstracts to pick abstracts that match YOUR PICO question

Here are a couple abstracts from the list:
- *Decreasing Blood Culture Contamination: Chlorhexidine vs. Povidone-iodine.* Author: K. Stonecyhper
- *Povidone iodine gel alcohol: a 30-second, onetime application preoperative skin preparation.* Author: D.K. Jeng
Patient Population = Emergency room patients
Intervention = Skin preparation technique
Comparison intervention = Chlorhexidine vs Povidone-Iodine
Outcome = Of the 1,302 contaminated blood cultures during the study, skin prep with povidone-iodine was 6.05% versus 3.35% for chlorhexidine
<table>
<thead>
<tr>
<th>Author/Year</th>
<th>Evidence Level</th>
<th>Population</th>
<th>Antiseptic</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stonecypher (2007)</td>
<td>Cohort Study</td>
<td>ED Patients</td>
<td>Chlorhexidine vs Povidone-Iodine</td>
<td>Of the 1,302 contaminated blood cultures during the study, skin prep with povidone-iodine was 6.05% versus 3.35% for chlorhexidine</td>
</tr>
</tbody>
</table>
YOU ARE ON THE EBNP HIGHWAY!

ROAD TO SUCCESS
References


- Sigma Theta Tau International, 2003
WEBSITES

- PubMed  www.pubmed.gov

- Cochrane Database  http://summaries.cochrane.org/

- National Clearinghouse  http://www.guideline.gov/