Implementation of Evidence-Based Practice Process Steps:
Strategies for WOC Nurse Practice

Barbara McNeil, PhD, RN-BC
School of Nursing and Health Physiology
Gonzaga University
Spokane, WA

Institute of Medicine’s 2020 Goal
90% of clinical decisions supported by accurate, timely and up-to-date clinical information and best available evidence

PROMOTING EVIDENCE-BASED NURSING PRACTICE

• Institute of Medicine’s (IOM) Reports and Roundtables on EBM
• The Future of Nursing: Leading Change, Advancing Health: IOM (2010)
• ANA’s Magnet Recognition Program (Forces of Magnetism)
• EBP Competencies for Nurses: Stevens (2005 & 2009)
• U.S. Preventative Services Task Force – recommendations for screening, counseling and preventative medicine
Academic Center for Evidence-Based Practice:

Essential Competencies for EBP in Nursing (2005, 2009)

“Knowing is not enough; we must apply. Willing is not enough; we must do.” — Goethe

An EBP Model
Evidence-Based Practice

A problem solving strategy comprised of 3 components to help clinicians, policymakers, leaders, payers, and patients make clinically-related decisions.

3 EBP Components

- Best external evidence: research, ebp theories, expert panels/opinions
- Client preferences and values
- Clinician’s expertise: internal evidence from QI projects, patient assessments, experience with practice & healthcare resources, and clinical reasoning.
7 Essential Steps of Evidence-Based Practice


Step 0 – develop a spirit of inquiry
Step 1 – ask a burning clinical question
Step 2 – search for best evidence
Step 3 – critically appraise/synthesize evidence
Step 4 – integrate w/ clinical expertise & pt. preferences
Step 5 – evaluate outcomes of change
Step 6 – disseminate findings

EBP Step 0: Develop a “Spirit of Inquiry”
- Question the “status quo” in practice.
- Generate searchable, patient care focused questions.
- Obtain necessary tools/resources for EBP process steps.
- Cultivate visible administrative buy-in & support.
EBP Step 1:
Develop A “Burning Clinical Question”

- Most critical step.
- Emerges from “real” clinical practice and clinical priorities.
- Formatted with PICOT mnemonic (PICOT).

PICOT Format

P = Population/Problem of interest (demographics and condition/disease, characteristics).
I = Intervention/issue of interest
   Therapy, prognostic factor, patient perception, diagnostic test, exposure.
C = Comparison group (not always)
O = Outcome(s) of interest
T = Timeframe for the outcome (optional)

PICOT Scenario #1

Mary Brown, a 78 year old woman, is admitted to the hospital diagnosed with a left venous leg ulcer. Her daughter tells you that she has been applying wet-to-dry saline dressings at home but has read about hydrocolloidal dressings on the Internet. She wonders which is better for healing her mother’s wound. You tell her that you will get back to her after you review the research.
Therapy Clinical Question
In elderly patients with venous leg ulcers, how does hydrocolloidal dressings compared to wet-to-dry dressings improve wound healing during hospitalization through discharge?

Practice #1: Therapy PICOT
P = hospitalized elderly patients with venous leg ulcers
I = hydrocolloidal dressings
C = wet-to-dry saline dressings
O = improved wound healing
T = prior to discharge to home

PICOT Scenario #2
You are working on a LTC unit with Mr. Jones, age 69, who has advanced multiple sclerosis and urinary incontinence. In reviewing his plan of care, you wonder if urinary incontinence or fecal incontinence increases the risk of incontinence-associated dermatitis (IAD).
**Etiology Clinical Question**

Are immobile, chronically ill pts. in LTC who have urinary incontinence compared to fecal incontinence at greater risk for IAD (O)?

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**Practice #2: Etiology PICOT**

- **P** = LTC patients with chronic illness and limited mobility
- **I** = urinary incontinence
- **C** = fecal incontinence
- **O** = increased risk for IAD
- **T** = N/A (or through lifespan)

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**EBP Step 2: Search for Evidence**

- Search 1st for the highest level of evidence.
- Utilize the “6S Pyramid of Evidence Resources” to guide you.
6S Pyramid of Evidence
DiCenso, A. et al. (2009)

Searching Sources (part 1)
- 1st — **Summaries**: EB Clinical Practice Guidelines, Clinical Evidence, Dynamed, UpToDate, AHRQ Evidence Summaries.
- 2nd — **Synopses of Syntheses**: Pre-appraised: Evidence-Based Nursing Journal, ACP Journal Club.
- 3rd — **Syntheses**: SRs/Meta-analyses: Cochrane Library, Joanna Briggs Institute, Campbell Collaboration.

Examples of EBP Guidelines for WOC Nurse Practice
- NGC: Guideline for prevention and management of pressure ulcers
- WOCN Guidelines
- Management of Lower Extremity Venous Disease (LEVD)
Searching Sources (part 2)
- 4th - Synopses of Single Studies – Evidence-Based Nursing Journal.
- 5th - Single studies – non-pre-appraised qualitative & quantitative studies in CINAHL, MEDLINE, EMBASE, PschInfo.
- Last - Expert Opinion or Anecdotes – “How we do it”.

Types of Research Designs
- Qualitative
  - focuses on the behavior, perspectives and experiences of individuals.
  - Ex. How do adolescents with an ostomy perceive their quality of life?
- Quantitative – experimental & observational
  - SRs/MAAs, RCTs, cohorts, case-control, case series, reports

EBP Step 3:
Critical Appraisal and Synthesis
- What is this study worth to my WOC nurse practice?
- Draw conclusions & make practice recommendations.
Quantitative Research Studies:
Appraisal Criteria

1. Are the results valid (Validity)?
2. What are the results (Reliability)?
3. Will the results help me in caring for my patients (Applicability)?

Quantitative Appraisal Tools

2. Rapid Critical Appraisals (RCAs):
   Melnyk & Fineout-Overholt’s (2011) textbook
3. KT Clearinghouse [http://ktclearinghouse.ca/](http://ktclearinghouse.ca/)
4. Centre for EBM: [http://www.cebm.net/?o=1913](http://www.cebm.net/?o=1913)
5. AGREE for clinical practice guidelines:
   [http://www.agreetrust.org](http://www.agreetrust.org)

Qualitative Research Studies:
Appraisal Criteria

- Specific to study type:
  - Ethnography, grounded theory, phenomenology, hermeneutics
- Trustworthiness
  - Credibility (internal validity)
  - Transferability (external validity)
  - Dependability (reliability)
  - Confirmability (objectivity)
Qualitative Appraisal Tools

• CASP, Melnyk & Fineout-Overholt, and the KT Clearinghouse

• Letts et al. (2007) Critical Review Form
  McMasters University

http://www.casp-uk.net

EXAMPLES OF CASP APPRAISAL TOOLS

How to Synthesize Evidence?

1. Identify “keeper studies”.
2. Enter study data into an Evidence Table.
3. Identify “themes/patterns” across the keeper studies & generate a summary statement.
4. Generate a conclusion statement r/t the PICOT.
5. Grade the strength of the overall evidence.
6. Write recommendations for practice.
EBP Step 4
Integrating evidence for practice-related decision making

Requires: Valid evidence
+ Clinical expertise
+ Patient’s values & preferences

EBP Decision Point
Is there sufficient and strong evidence (compelling valid and reliable evidence) to recommend a change in practice or to implement the findings?

If YES, then recommend implementation of best practice based upon:
1. WOC nurse practice-based knowledge and experience (Internal Evidence) and
2. Your understanding of the patient’s perspective, barriers, concerns, & values and healthcare resources.
Refer to EBP Models

1. ARCC Model
2. Iowa Model of EBP to Promote Quality Care
   Titler, Kleiber, Steelman et al. (2001).
4. The John Hopkins Nursing Process for EBP
   Newhouse (2007).

Implementation Strategies for EBP changes in WOC nurse practice

- Articulate the proposed change, needed resources, and outcomes. Garner administrative & peer support.
- Generate EBP guidelines for the change.
- Implement & evaluate the guidelines and outcomes on pilot unit(s). Revise as needed.
- Decide: Should system-wide change be implemented?
- Ongoing monitoring of pt. & system-wide impact.

Specific Implementation Strategies (Cullen & Adams, 2012)
Evidence-Based Practice Implementation Guide.
- Create awareness & Interest
- Build Knowledge & Commitment
- Promote Action & Adoption
- Pursue Integration & Sustained Use
If NOT sufficient and high quality evidence, then conduct:

- a clinical research study or
- a pilot project based on available evidence. Track

Evidence-Based Quality Improvement (EBQI)

- Makes changes in current practice so that it matches best available evidence.
- Through audits & quality assurance, practice is assessed before and after a change.

EBP Step 5

Evaluate the Outcomes of the Practice Change or Clinical Decision
Evaluate the Outcomes
1. Were expected patient and organizational outcomes reached? For example, did pressure ulcer rates and stage progression decrease?
2. If outcomes not met, then analyze data further to make necessary revisions.

EBP Step 6
Disseminate the findings

Disseminate Findings
- Oral & poster presentations at WOCN Conference.
- EBP clinical rounds on units
- Discussing key points of a study through a Journal Club.
- Publishing findings of your project: local and professional journals.
- Discussing with your patients/clients.
Successful EBP for WOC nurses:

– Build an “ebp culture” in your setting – a team approach; include EBP mentors & librarian.
– Generate ideas for practice change from your daily clinical interactions and new research.
– Educate self; attend EBP seminars/workshops.
– Provide local educational sessions on EBP.
  • e.g., Critique a study and discuss how findings relate to your patients and units.
– PRACTICE, PRACTICE, PRACTICE

Whatever you can do or dream you can, begin it.

Boldness has genius, power, and magic in it.

- Goethe
A Partial List of References for Evidence-Based Practice Knowledge and Skills

WOC Nurses Society Conference, June, 2013
Seattle, Washington


# EBP Resources: Type and Level in Evidence Pyramid

<table>
<thead>
<tr>
<th>Resource</th>
<th>Type of Evidence</th>
<th>Level in Evidence Pyramid</th>
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<tbody>
<tr>
<td>ACP Journal Club</td>
<td>Structured Abstract; Clinical Research Critiques</td>
<td>Synopses of Syntheses</td>
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<tr>
<td>AHRQ Evidence Reports</td>
<td>Guidelines, Evidence Summaries</td>
<td>Summaries</td>
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<td>Campbell Collaboration Library</td>
<td>Systematic Reviews</td>
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<td>CINAHL</td>
<td>RCTs, cohorts, case-control studies</td>
<td>Single Studies</td>
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<td>Clinical Evidence</td>
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<td>Summaries</td>
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<tr>
<td>Cochrane Central Register of Controlled Trials</td>
<td>Abstracts of RCTs</td>
<td>Single Studies</td>
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<td>Cochrane Database of Systematic Reviews</td>
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<tr>
<td>DARE</td>
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<tr>
<td>DynaMed</td>
<td>All types</td>
<td>Meta-search engine</td>
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<td>EMBASE</td>
<td>Bibliographic database for biomedical and pharmaceutical literature.</td>
<td>Single Studies and Systematic Reviews</td>
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<td>Evidence Based Nursing Journal</td>
<td>Research studies and reviews – critically appraised</td>
<td>Synopses of Syntheses and Synopses of Single Studies.</td>
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<td>Evidence Summaries, Reference Monograph</td>
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Note: Some resources are by paid subscription only.

Developed by Barbara McNeil 2013