

**ECLEPS  
CEL Workshop  
July 16, 2008  
Evidence Based Practice (EBP)**

***Definition: Evidence Based Practice***

“Evidence based nursing practice is the conscientious, explicit and judicious use of theory-derived, research-based information in making decisions about care delivery to individuals or groups of patients in consideration of individual needs and preferences” (Ingersoll, 2000).

Ingersoll, G. L. (2000). Evidence-based nursing: What it is and what it isn't. *Nursing Outlook*, 48, 151-152.



***How is your nursing practice informed? (What information provides the basis for your nursing practice?)***



***Share and Compare***

**(Handout)**

*5 Steps in the EBP Process:*

1. **Ask** the clinical question.
2. **Collect** the most relevant and best evidence.
3. Critically **appraise** and synthesize the evidence.
4. **Integrate** all evidence with personal clinical expertise, as well as patient preferences and values, and make a practice decision or change.
5. **Evaluate** the practice decision or change.



**Step #1 - Ask the clinical question.**

### *Types of Questions*

Background Questions

Foreground Questions



**Clinical Nursing Problem - How to prevent falls in cognitively impaired adults in LTC settings?**

### **A framework for formulating questions**

**P** = *Population, Problem*

**I** = *Intervention*

**C** = *Comparison intervention (not required)*

**O** = *Outcome*

### **A possible clinical question**

- What interventions (I) minimize the risk for falls (O) in older adults, with cognitive impairments, who live in long term care settings (P)?

If I were to use the C (comparison) intervention here, a more refined question might be:

- Is the Morse Fall Scale (Intervention #1) or Tinetti's Performance Based Assessment (Intervention #2) more reliable in assessing balance gait and precipitating fall behaviors?

**Your Questions (some may have been slightly modified):**

- How to implement self-directed work teams in the long term care setting? How to develop leadership skills in direct care workers / person centered work teams
- How to make the outdoors more accessible and safe for residents in LTC?
- How to decrease a resident's medications (since 9 or > medications is of concern); how can we help with this process?
- What anti depressant and antipsychotic medications are used in the elderly patient? (I am interested in learning more about anti depressant and antipsychotic medication use in the elder patient.)
- What is the best way to teach families and patients about anticoagulation therapy? Are anticoagulation flow sheets used by nurses (and RCMs ) helpful ( do they improve patient outcomes [which ones] or ?) for patients in LTC.
- What are ways to measure family satisfaction?
- Why do patients with moderate to severe dementia spit copiously? How common is "spitting" as a dementia behavior; What is the cause ( pathology?) of spitting behaviors in the patient with severe dementia?; How can this behavior be modified?
- What is the evidence for "Tab" alarm use in nursing home residents?

**Step #2 Collect** the most relevant and best evidence.

*Sometimes it feels like trying to find a needle in a haystack ....*



Ask yourself: What **type of Question** am I trying to answer?

Then select sources of information that may be appropriate to answer your question

**1) Decide what type of literature (evidence) you want/ need.**

Synthesized Evidence

Comes in many forms and formats

Primary Research Publications

**2) ID Potential Sources as appropriate**

**Internet (WWW) Resources**

Using “Google” or other Internet search engines

Nursing Organizations/Centers

Medscape

Google Scholar

**Using Bibliographic Databases (Hosts: OVID, EBSCO)**

- CINAHL
- Medline (PubMed)
- PsycINFO
- Other

**Special Databases**

Cochrane

**Libraries**

- Local Hospital
- Local College/University
- OHSU (OR licensed professionals)

***Your Question***

***Identify Key terms appropriate for the database selected***

*P*

*I*

*O*

*Page is intentional blank for notes and examples.*

**Step #3 Appraising Evidence  
Evidence Hierarchy\***

<i>Level</i>	
<b><i>I</i></b>	Evidence Based Clinical Guidelines based on meta analysis and systematic reviews of Randomized Control Trials (RCTs) Meta analysis of all relevant well designed RCTs Systematic Review of well designed RCTs that did not result in meta analysis.
<b><i>II</i></b>	Individual RCT (experimental study)
<b><i>III</i></b>	Quasi-experimental study, i.e, a non-RCT, e.g., non randomized single group pre and post time series, or matched case-controlled study)
<b><i>IV</i></b>	Non experimental study (e.g. case-control and cohort studies) Well done epidemiological studies**.
<b><i>V</i></b>	Meta-synthesis reviews of descriptive and qualitative studies that meet specific criteria
<b><i>VI</i></b>	Single descriptive or qualitative study
<b><i>VII</i></b>	Opinion of respected national authorities based on their clinical experience OR Opinions of expert committees, including their interpretation of non-research-based information, regulatory or legal opinions.
<b><i>Overall Strength of the Evidence</i></b>	<b>Quality:</b> critical appraisal, using standardized tool, determines limitations of design, sample type/size, methodology and analysis, findings and implications weighed against strengths of the evidence. <b>Quantity:</b> determine how many studies examined the same research question and what were the size of the sample <b>Consistency:</b> determine the extent that the studies/evidence have similar or different designs (i.e. determine the level of evidence category of the study) but have the same research question and the findings are similar.

\*Adapted from Krainovich-Miller (in press), Melnyk and Fineout-Overholt (2005, p. 10), LoBiondo-Wood, Haber & Krainovich-Miller (2006) and AHRQ (2002)

**Definitions**

**Randomized Control Trial (RCT)** - Well controlled, randomized experimental study

**Meta Analysis** - A systematic review that resulted in the ability to apply statistics to a number of the RCTs that met specific criteria.

**Step 4 # Integrate** evidence

**Consider** clinical expertise, patient preferences and values. **Determine** if practice change is appropriate and feasible. **Make** practice decision or change.

**Step #5 Evaluate** the practice decision or change.



*Possible **Questions** for further consideration and conversation*

*What do you see as barriers to using the most up to date evidence to make practice decisions?*

*What do you see as next steps in learning about the process of EBP and acquiring the skills and confidence to find and use the most up to date evidence to guide practice?*



**Evidence Based Practice (EBP) Skills Inventory**  
 (Adapted from Melnyk and Fineout-Overholt (2005, p 419)  
 and OCNE Competency #10.)

I have experience...	No Experience	Some Experience	Much Experience
Asking clinical questions (Why are we doing this intervention in this way? Why did one patient have different outcomes than another? ...)			
Performing efficient searches for evidence that can answer my clinical questions.			
Selecting the best evidence from what is found in my searches.			
Appraising/Evaluating the evidence for reliability, validity, accuracy, authority and point of view or bias.			
Incorporating current knowledge from disciplines other than nursing.			
Considering epidemiological and interventions studies to identify at risk populations.			
Considering intervention studies when designing nursing care activities.			
Reevaluating policies, procedures, or standard of practice when evidence supports change.			

Melnyk, B.M., & Fineout-Overholt, E. (2005). *Evidence-based practice in nursing and healthcare*. Philadelphia: Lippincott Williams & Wilkins.

## Resources

- **Agency for Healthcare Research and Quality (AHRQ)**

[www.ahrq.gov](http://www.ahrq.gov)

Evidence Based Practice Centers (EPC) reports, clinical guidelines, and much more.

- **American Journal of Nursing- Nursing Center**

<http://www.nursingcenter.com/library/static.asp?pageid=527873>

A New Look at the Old Series ( \includes streaming video Webcasts)

<http://www.nursingcenter.com/library/static.asp?pageid=730390>

How to “Try This” - Series Assessments and Best Practices for Older Adults

<http://www.nursingcenter.com/home/static.asp?pageid=802192>

Wound Management (Duke)

- **Centers for Disease Control and Prevention**

<http://www.cdc.gov/>

Many evidence based practice resources.

<http://www.cdc.gov/ncipc/duip/preventadultfalls.htm>

Fall prevention resources.

- **Evidence-Based Nursing: Guide and Tools**

[www.muhc-ebn.mcgill.ca/EBN\\_tools.htm](http://www.muhc-ebn.mcgill.ca/EBN_tools.htm)

A list of links to evidence based health care information from McMaster University.

- **John H Hartford Foundation - Institute for Geriatric Nursing**

<http://www.hartfordign.org/resources/education/tryThis.html>

A series of assessment tools provide knowledge of best practices in the care of older adults.

<http://www.consultgerirn.org/>

Consult GeriRN: Online resources for care of older adults. Many are evidence based.

- **Joanna Briggs Institute Best Practice in Allied Health**

[www.joannabriggs.edu.au/pubs/best\\_practice.php](http://www.joannabriggs.edu.au/pubs/best_practice.php)

Best Practice: Evidence-based information sheets.

- **National Guidelines Clearinghouse**

[www.guidelines.gov](http://www.guidelines.gov)

A public resource for evidence-based clinical practice guidelines

[http://www.guideline.gov/summary/summary.aspx?doc\\_id=4833](http://www.guideline.gov/summary/summary.aspx?doc_id=4833)

Fall Prevention guideline summary from University of Iowa Gerontological Nursing Interventions Research Center

- **Nursing Best Practice Guidelines**

[www.rnao.org/bestpractices](http://www.rnao.org/bestpractices)

From the Registered Nurses Association of Ontario, in-depth guidelines for a variety of conditions.

- **Oncology Nursing Society Evidence-Based Practice Resource Area**

[www.ons.org/evidence](http://www.ons.org/evidence)

Includes guides to identify critically appraise and use evidence to solve clinical problems and in developing evidence-based practice protocols.

- **RCN Clinical Guidelines**

<http://www.rcn.org.uk/development/practice/clinicalguidelines>

From the Royal College of Nursing

- **University of Anchorage Alaska Health Sciences Information Services**

<https://consortiumlibrary.org/hsis/researchaids/handouts/ebp.php>

Resources related to EBP, includes a quantitative and qualitative evidence hierarchy.

## Online Tutorials/Users Guides

- **Evidence Based Medicine: Finding the Best Clinical Literature**

[www.uic.edu/depts/lib/lhsp/resources/ebm.shtml](http://www.uic.edu/depts/lib/lhsp/resources/ebm.shtml)

From the University of Illinois at Chicago Health Sciences Library this guide is designed to assist health care professionals and students become effective and efficient users of the medical literature.

- **Evidence Based Nursing**

[evidence.ahc.umn.edu/ebn.htm](http://evidence.ahc.umn.edu/ebn.htm)

An overview of EBN from the University of Minnesota

- **Searching the Medical Literature for the Best Evidence**

[www.hsl.unc.edu/Services/Tutorials/EBM\\_searching/pages/index.htm](http://www.hsl.unc.edu/Services/Tutorials/EBM_searching/pages/index.htm)

A tutorial from the University of North Carolina Health Sciences Library designed to teach you how to select and search key resources to locate evidence-based information for clinical decision-making.

## Continuing Education Resources

- **MedEd Today**

Online education for health professionals

<http://www.mededtoday.com>

- **Medscape**

<http://www.medscape.com/home>

Many resources, several resource centers, articles, continuing education and more...

This resource list was modified based on the work of Dolores Zegar Judkins, MLS (Research & Reference Services OHSU Library) February 2006.

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