ASKING

Where does the patient focused clinical question fit in Evidence Based Practice?

Why ask a structured clinical question?

How do you ask a structured clinical question?

Where can I start to find reliable, current evidence to answer my questions?
Evidence Based Practice is

“... the conscientious, explicit, and judicious use of the best evidence in making decisions about the care of individual patients.”

Evidence Based Practice includes

“…“thoughtful identification and compassionate use of individual patients' predicaments, rights, and preferences.”


EBP emphasizes professional experience and clinical expertise.

"...Without clinical expertise, practice risks becoming tyrannised by evidence, for even excellent external evidence may be inapplicable to or inappropriate for an individual patient.”

Evidence Based Practice starts and ends with a Patient

Research information  Patient values  Clinical expertise

5 As of Essential Evidence Based Practice

• **Asking** a focused, “searchable,” clinical question
• **Accessing** the medical literature through a **structured search** and understanding available resources
• **Appraising** -- critically evaluating the evidence to determine if it is robust, reliable and valid.
• **Applying** the evidence to the particular patient situation
• **Assessing** the outcome of using (or not using) particular information its impact on clinical practice

Asking a focused, “searchable,” clinical question

- Captures what you need to know
- Based on actual patient scenarios
- Form the right question using a format that facilitates finding.

PICO Format Facilitates Finding Answers

Include four essential components:

P: Patient, population
I: Intervention or therapy
C: Comparison, control, context
O: Outcome
**PICO** Why use a specific format?

- Focus what you need to know
- Format facilitates finding
- **PICO** components are:
  - Key words for text searches
  - “Data fields” for literature database searches

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**PICO: Focused Clinical Question**

Center for Evidence Based Practice [http://www.cebm.net/focus_quest.asp](http://www.cebm.net/focus_quest.asp)

<table>
<thead>
<tr>
<th>Patient, population, problem</th>
<th>Intervention</th>
<th>Comparison</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consider</strong></td>
<td>Describe relevant patient characteristics or problem similar to your patient’s. Be brief, clear, precise, narrow. Define alternatives.</td>
<td>Determine possible prognostic factors, causes. Broad (“what is most effective?”) or narrow (specific therapy).</td>
<td>Alternative therapy. Consider a limiting factor Compared to a &quot;gold standard&quot;.</td>
</tr>
<tr>
<td><strong>PICO</strong></td>
<td></td>
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</tbody>
</table>
Start with a good question to focus your efforts.

Background questions – general information
- Question root (who, what, when, why, how…)
- Specific concept: intervention, comparison alternative disorder or disease, or aspect of the disorder
- Fewer PICO components
- Broader = greater # results from search
- More “information” at various scientific levels
  - Patient information, overviews, reviews, etc.

Start with a good question to focus your efforts.

Foreground questions – specific evidence
- Patient or population focused
- Specific intervention with specific comparison
- Clinically relevant outcome
- More PICO components = fewer, more relevant results
Evidence Based Practice begins with a patient and a patient oriented, clinical question

Patient scenario

James, 32 year old male, technical sales manager who drives long distances (or at least for long periods of time) and is a frequent flier for his job, has been visiting you for neck and back issues for over two years on a fairly regular basis. In addition to working from the car and plane, he has a home office and uses a laptop. You and he have discussed work place ergonomics as well as exercise and stretching to alleviate chronic neck and back pain.

Evidence Based Practice begins with a patient and a patient oriented, clinical question

On a recent visit, he tells you he heard on the TV news that chronic back and neck pain causes depression -- or was it vice versa? -- and that chiropractic and alternative care that relieves the pain can relieve depression. He asks, “Do you think that this neck thing could be causing me to feel blue lately? Or do you think mid-winter blues are causing this pain in my lower back and neck? My colleague just had lumbar disk surgery and feels great. I’m not so excited about surgery. Should we be doing something different?”

He says after hearing that news report, he’s been looking on the internet to see what might help with the chronic pain and lift his mood.
### PICO: Focused Clinical Question

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<th>Comparison</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Adult (male)</td>
<td>• Alternative therapies</td>
<td>• “Gold standard” or common therapy?</td>
<td>• Reduce / relieve pain</td>
</tr>
<tr>
<td>• Chronic back, neck pain</td>
<td>• Conservative care</td>
<td>• Surgery</td>
<td>• Alleviate symptoms of mild to moderate depression</td>
</tr>
<tr>
<td>• Headache</td>
<td>• Botanicals</td>
<td>• Prescribed drug therapy?</td>
<td>• Improve mood</td>
</tr>
<tr>
<td>• Insomnia</td>
<td>• Massage</td>
<td></td>
<td>• Reduce inflammation</td>
</tr>
<tr>
<td>• Mood, emotion</td>
<td>• Chiropractic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Acupuncture</td>
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<td></td>
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</table>

**PICO**

### Background questions – general information

- What are [O = physical symptoms] associated with [P = chronic stress OR chronic low back pain OR chronic neck pain]?
- Does [O = stress] cause [P = chronic (low back or neck) pain]?
- What are [I = alternative therapy / therapies] for [P = chronic (low back OR chronic neck) pain] other than [C = surgery OR exercise]?

### Foreground questions – specific evidence

- For [P = adults with chronic back OR neck pain] does [I = CAM provide effective therapy] to
  - [O = alleviate pain] compared to [C = surgery]?
- [I = specific therapy: chiropractic, exercise, etc.]
PICO: Focused Clinical Question

• Focus on what you need to know
• Substitute PICO components (think of synonyms or alternatives) to provide alternative search “paths”

Focus Background Questions to Searchable, Foreground Format

➢ Use great informational and “compiled evidence” websites and databases through the NUHS LRC web page

➢ Focus background questions to searchable foreground questions
### Focus Background Questions to Searchable, Foreground Format

**NUHS LRC web pages:** NUHS home >> Student Services >> Learning Resource Center: (click on databases)

http://www.nuhs.edu/show.asp?durki=216

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**NUHS LRC web page >> databases**

http://www.nuhs.edu/show.asp?durki=216

In addition to the databases below, the LRC at NUHS also provides access to several electronic journal subscriptions. For a detailed list and access information, or for other questions related to database use, contact the Reference Department by phone at (631) 745-8126.

<table>
<thead>
<tr>
<th>Database</th>
<th>Brief Description</th>
<th>How to Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>A to Z</td>
<td>Provides users with a single, comprehensive online list of almost 10,000 electronic journals. Users can search for journals by keyword or browse an alphabetical list by title or subject.</td>
<td><a href="http://proquest.umi.com">http://proquest.umi.com/</a></td>
</tr>
<tr>
<td>ABI INFORM</td>
<td>Index of business and management topics</td>
<td>Via FirstSearch <a href="http://firstsearch.proquest.com">login</a></td>
</tr>
<tr>
<td>Academic Search Premier</td>
<td>Features full text articles from 1,850 scholarly journals, including 1,200 peer-reviewed titles</td>
<td>Via Ebscohost <a href="http://proxy.lib.nh.gov">login</a></td>
</tr>
<tr>
<td>AltHealthWatch</td>
<td>Covers complementary, alternative, and integrated approaches to health care and wellness. Full text of both professional and consumer materials.</td>
<td>Via Ebscohost <a href="http://proxy.lib.nh.gov">login</a></td>
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</tbody>
</table>
Compiled Evidence Websites & Databases

NUHS LRC database web page
http://www.naturalstandard.com/

NUHS LRC database web page
http://www.naturalmedicines.com/member_home.asp/

Agency for Healthcare Research and Quality
http://www.ahrq.gov/

US Nat’l Library of Medicine / National Institutes of Health
http://www.nlm.nih.gov/medlineplus

• NUHS LRC >> databases >> Natural Standard
• http://www.naturalstandard.com/ from on campus only
The US National Library of Medicine’s MedlinePlus
(www.nlm.nih.gov/medlineplus/)

Hierarchy of Evidence for Clinical Decision Making

- Systematic Reviews (SR), Meta-Analysis (1a)
- Best Evidence / Evidence Guidelines & Summaries (1b)
- Randomized, controlled trials (RCT) (2b)
- Clinical trials, Cohort Studies (2a)
- Case Control, Case series (3a)
- Case study / case report (3b)
- Animal studies, in vitro studies (4)
- Expert opinions, editorials, ideas (5)
- Expert opinions, editorials, ideas (6)
Try this activity

- Follow guide & directions in Chapter 2 of the EBP@NUHS Study Guide
- Use patient scenario or a hot topic of interest, form background and foreground PICO format clinical questions
- Explore all the compiled evidence database websites for background information and foreground specifics
  - Links can be found on the NUHS LRC Database web pages or in the CygNET based EBP@NUHS
  - Natural Standard & DCConsult may have campus access only through IP address recognition – check the LRC passwords list if links do not open
- Determine if there are other PICO component words can be used as search terms for other databases based on what’s available in the compiled evidence database websites

Access forms, files, links & resources for Asking

CygNET registration:
- e-LRC electronic LRC resources & EBP tools
- www.NUHS.edu >> Current Students >> Log into CygNET Learning Management System (http://cygnet.nuhs.edu)
- Sign in with NUHS ID and password
- No enrollment key
Try this activity – some practical outcomes & uses

- Turn in PICO form with clinical question and PICO Search Strategy & Results
- Use the evidence to update course material and resources – stay current efficiently
- Start or contribute to an EBP@NUHS or CygNET forum:
  - post PICO questions – what do you need to know?
  - review compiled evidence website resources that
    - provide evidence to answer the question or
    - add additional, evidence based resources for study and additional, current course content

Some notes and tips

- Forms, files and resource links are all on CygNET
  EBP@NUHS in the Asking topic
- Open a file, save to your hard drive with a new file name
  - Working without saving to a local drive uses the CygNET server
  - SLOW… can lose your work
- "Personalize" forms by adding PICO components, dates or initials to the original file name & keep for reference
Some notes and tips

• Use Internet Explorer
  – Some browsers do not support features or have security features which block links and addresses (Mozilla Firefox)
• Open links in “New Windows” if Tabs block URL addresses

Have fun asking clinical questions