Strategies to Achieve Compliance with Evidence-Based Practice

Kathleen Dracup, RN, NP, PhD
School of Nursing
University of California, San Francisco

Evidence-based Practice

• History
• Selection of topics and evidence
• Reasons and barriers to use
• Strategies to achieve compliance
Common Time Course of Ideas, Diagnostic Procedures, Therapies

**Phase 1:**
- Euphoria

**Phase 2:**
- Doubt/Uncertainty

**Phase 3:**
- Disillusionment

**Phase 4:**
- Reflection

**Phase 5:**
- Reality

Rahimtoola, S., *Circ.* 1985
History of EBP

• When was the term evidence-based practice first used?
  a) By Hippocrates in 425 BC
  b) By Flexner in 1927
  c) By Eddy in 1990
  d) By Trump in 2016

EBP Summarized in Clinical Practice Guidelines
The greatest barrier to adopting high reliability principles and practices is a cultural hierarchy where autonomy is the core value. The very people who we need desperately to champion complain that the applicability of these principles is “cookbook medicine.” Many claim tools such as checklists and standardized practices detract from their autonomy and lack a personal touch.

Spence Byrum

The practice of Evidence-Based Medicine is the integration of the best research evidence with clinical expertise and patient values.

Clinical Practice Guidelines

“A set of recommendations based on a systematic review of the evidence and an assessment of the benefits and harms of alternative care options.”

IOM, 2010

Criteria for Guideline Topics

- high occurrence
- treatment varies
- inappropriate care given
- high cost
- outcome varies
- sufficient research available
Literature Quality-rating System

- evidence from well-conducted randomized controlled trials or cohort studies
- evidence from other types of studies
- expert opinion

AHRQ
What are the categories of evidence?

- Ia—evidence for meta-analysis of randomized controlled trials
- Ib—evidence from at least one randomized controlled trial
- IIa—evidence from at least one controlled study without randomization
- IIb—evidence from at least one other type of quasi-experimental study
- III—evidence from non-experimental descriptive studies, such as comparative studies, correlation studies, and case-control studies
- IV—evidence from expert committee reports or opinions or clinical experience of respected authorities, or both

Effect of interdisciplinary intervention on HF Risk of readmission

Summary RR=0.76 (95% CI=0.68-0.87)
Summary RR for Randomized Only=0.75 (95% CI=0.60-0.95)
P for homogeneity=.5952 (p>0.10= homogeneous)
Cohort studies of CABG versus medical management for patients with heart failure or reduced EF and coronary artery disease

Who develops guidelines?

- Governmental agencies (http://www.guideline.gov/browse/by-topic.aspx)
- Professional organizations
- Health care organizations
- Cochrane library (http://www.cochranelibrary.com/)
How do we translate guidelines into practice?

Products of guideline development

- Web sites
- Mobile apps
- Patient education material
- Check lists
- Protocols
- Dashboards
Why Use Evidence-Based Practice?

- Achieve better clinical outcomes
- Improve communication in team
- Enhance patient safety
- Avoid litigation
- Reduce cost

Knaus W, et al.

An evaluation of outcome from intensive care in major medical centers.

Ann of Int Med, 1986
Methods
Knaus, et al

- 13 tertiary care hospitals
  - similar technical capabilities
  - different in structure and process
- 5,030 ICU patients
- hospitals ranked based on ratios of projected & actual death rates
- outcome variable -- mortality
  (probability of survival calculated using disease, pre-treatment APACHE II score & surgical status)

Results
Knaus, et al

<table>
<thead>
<tr>
<th>Hospital Performance Ranking</th>
<th>Hospital Mortality Rate (%)</th>
<th>Mortality Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11.2</td>
<td>0.59 *</td>
</tr>
<tr>
<td>2</td>
<td>20.4</td>
<td>0.84</td>
</tr>
<tr>
<td>3</td>
<td>18.9</td>
<td>0.88</td>
</tr>
<tr>
<td>4</td>
<td>38.3</td>
<td>0.90 **</td>
</tr>
<tr>
<td>5</td>
<td>9.8</td>
<td>0.92</td>
</tr>
<tr>
<td>6</td>
<td>8.9</td>
<td>0.93</td>
</tr>
<tr>
<td>7</td>
<td>17.2</td>
<td>0.96</td>
</tr>
<tr>
<td>8</td>
<td>19.7</td>
<td>1.00</td>
</tr>
<tr>
<td>9</td>
<td>24.1</td>
<td>1.04</td>
</tr>
<tr>
<td>10</td>
<td>14.8</td>
<td>1.10</td>
</tr>
<tr>
<td>11</td>
<td>26.5</td>
<td>1.13</td>
</tr>
<tr>
<td>12</td>
<td>31.5</td>
<td>1.27</td>
</tr>
<tr>
<td>13</td>
<td>26.4</td>
<td>1.58 *</td>
</tr>
</tbody>
</table>
Conclusions
Knaus, et al

• Differences appeared to relate to the interaction and communication between physicians and nurses
• Clinical guidelines/protocols used to direct care
• Use of technology, although important, was not sufficient to produce the magnitude of difference

Barriers to Effective Collaboration

- hierarchical traditions of hospital
- stereotyping
- collaboration etiquette
- language

- ineffective communication
- lack of role models
- perceived education differences between physicians and others
Collaborative Practice Models

**Traditional**
- Physician
- Registered Nurses
- Other Staff
- Patients

**Collaborative**
- Physician
- Registered Nurses
- Patients
- Other Staff

**Collaborative Practice Model**

- shared authority
- care provided in integrated manner by team
- care is comprehensive and amenable to high quality
- all share in cost control
Why Use Evidence-Based Practice?

- Achieve better clinical outcomes
- Improve communication in team
- Enhance patient safety
- Avoid litigation
- Reduce cost

Question: What are the barriers to using EBP?

a) Habit or tradition
b) lack of time and/or resources
c) lack of support from administration
d) poor accessibility and readability of research literature
e) all of the above
What is the basis for behavior change in patient management?

Clinician’s belief in evidence versus experience as the basis of knowledge.

The willingness to diverge from common or previous practice based on new information

Types of Clinicians

- Seekers
- Traditionalists
- Pragmatists
- Receptives

Does providing data about compliance with EBP make a difference?

Hand hygiene at UCSF

Summary: Why Use Evidence-Based Practice?

• Achieve better clinical outcomes
• Improve communication in team
• Enhance patient safety
• Avoid litigation
• Reduce cost
Summary: What are strategies to achieve compliance with EBP?

- Seek support of “receptives” and “pragmatics” as well as informal leaders
- Support interdisciplinary collaboration as a culture
- Demonstrate support by leadership
- Provide clinicians with data about compliance

“The practice of Evidence-Based Medicine is the integration of the best research evidence with clinical expertise and patient values.”