It’s Time to Use Evidence to Drive our Practice

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Objectives

By the end of this presentation, the participant will be able to:

- Discuss the barriers to using evidence in bedside nursing.
- List three tools to improve the adoption and use of evidence-based nursing practice.
- Identify strategies to incorporate evidence into your bedside practice.
What is happening in nursing today?

- Increasing knowledge base
- Improved nurse to patient staffing ratios
- Improved and expanded technology:
  - IV pumps that calculate dosages and rates for nurses
  - Cardiac monitors that check and record vital signs right into the electronic medical record
  - And on, and on.....
However...

- Despite all the technologic advances, this does not necessarily translate to better outcomes for our patient.....
The changing profile of healthcare over the past two decades has been driven by studies published by the Institute of Medicine (IOM) – which clearly identify lapses in the “Do No Harm” concept.
Institute of Medicine (IOM)

Two hallmark publications:

- To Err is Human: Building a Safer Health System published in 1999
  - Put the spotlight on how *tens of thousands* of Americans die each year from medical errors
  - Put patient safety and quality on the radar screen of public and private policymakers

- Crossing the Quality Chasm: A New Health System for the 21st Century published in 2001
  - Described broader quality issues and defined six aims of care: care should be safe, effective, patient-centered, timely, efficient and equitable
According to the first paragraph of this publication:

- “Healthcare in the United States is not as safe as it should be--and can be. At least 44,000 people, and perhaps as many as 98,000 people, die in hospitals each year as a result of medical errors that could have been prevented, according to estimates from two major studies. Even using the lower estimate, preventable medical errors in hospitals exceed attributable deaths to such feared threats as motor-vehicle wrecks, breast cancer and AIDS.”

Institute of Medicine (1999). To Err is Human: Building a safer health system.
According to the first paragraph of this publication:

- “The U.S. health care delivery system does not provide consistent, high-quality medical care to all people. Americans should be able to count on receiving care that meets their needs and is based on the best scientific knowledge—yet there is strong evidence that this frequently is not the case. Health care harms patients too frequently and routinely fails to deliver its potential benefits. Indeed, between the health care that we have and the health care that we could have lies not just a gap, but a chasm.”

The term “quality” has taken on new meaning in the world of outcomes driven healthcare.
IOM Definition of Quality:

- The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.
Clinical decision making is essential to the practice of nursing.

To give the best care possible, knowledge must guide our selection of clinical actions that are most likely to achieve the desired health outcomes.
How much is good enough?

- If you get a 99.9% on an exam - is that good enough?
- If you receive a 99.9% in a class - is that good enough?
- If your nursing practice is perfect 99.9% of the time - is that good enough?
If 99.9% is good enough, then…

- 11 babies will be given to the wrong parents each day.

- 291 pacemaker operations will be performed incorrectly this year.

- 107 incorrect medical procedures will be performed by the end of today.
If 99.9% is good enough, then...

- 15,000 newborn babies will be accidentally dropped in hospitals this year.

- 20,000 incorrect drug prescriptions will be written in the next 12 months.

- Your heart will fail to beat 32,000 times this year.
And think about this.....

- These stats are from **1993**, so the totals would likely be higher for many of the categories...Kind of puts things in perspective, doesn't it?
The lesson today…

- We must strive for **excellence**, not mediocrity, not even good - because 99.9% is NOT good enough!

- We elevate the profession of nursing when we develop sound evidence-based practice.
Why don’t we do this?

- Do any of the following sound familiar:
  - I am too – busy, tired, stressed, overworked
  - This is what I have always done..
  - We have always done it this way…
  - This is what my preceptor taught me

- These have been the many reasons (excuses) for not implementing evidence-based practice in healthcare – as well as other professions.
START BY ASKING THE QUESTION...
So...Where do you start?

- The first step – does your organization foster a culture of inquiry
  - Do you?

- Culture of inquiry
  - Ongoing curiosity about the best evidence to guide clinical decision making

Ask the question..

- Why do we do it that way?
- Why am I doing that to my patient?
- Why “have we always done it that way”?
- Is there evidence to support what I have always done?

Do you know the “why” behind the many things we do in our practices?
PICOT Question

- **P** = patient population
- **I** = intervention or issue of interest
- **C** = comparison intervention or issue of interest
- **O** = outcome of interest
- **T** = time it takes for the intervention to achieve the outcomes
Asking the question

- Is there evidence to support the practice:
  - Use of trendelenburg positioning (I) to treat hypotension (O) in patients (P)?
WHO DO I ASK?  HOW DO I FIND EVIDENCE?
PubMed – free!!!!!
Begin to Search

266 results from my inquiry – I will need to further refine, or review the list for relevance.
Choose Your Results

8. **Trendelenburg position: "put to bed" or angled toward use in your unit?**
   
   Halm MA.
   PMID: 23117908  Free Article
   Similar articles

10. **[The trendelenburg position in the urgent treatment of the hypotensive patient: empiricism versus rationalism].**

   Ballesteros Peña S.
   PMID: 22382086
   Similar articles

16. **Evidence-based practice habits: putting more sacred cows out to pasture.**

   Makic MB, VonRueden KT, Rauen CA, Chadwick J.
   PMID: 21459864  Free Article
   Similar articles
Saving Your Search – Lots of Options

Choose Destination
- File
- Collections
- Order
- Citation manager

Clipboard: 7 items

Send to

Choose Destination:
- File
- Clipboard
- Collections
- E-mail
- Order
- My Bibliography
- Citation manager

Search: use of trendelenberg position for hypotension

Format
- Summary

Sort by
- Most Recent

E-mail

Subject
- use of trendelenberg position for hypotension

Additional text

I'm not a robot

Didn't get the message? Find out why...
Selected Articles

1. Trendelenburg position: "put to bed" or angled toward use in your unit?
   Halm MA.
   PMID: 23117908
   Similar articles

2. [The trendelenburg position in the urgent treatment of the hypotensive patient: empiricism versus rationalism],
   Ballesteros Peña S.
   PMID: 22382086
   Similar articles

3. Tilt position and preload.
   Lema GE, Carrasco P.
   PMID: 21372720
   Similar articles

4. Evidence-based practice habits: putting more sacred cows out to pasture.
   Makic MB, VonRueden KT, Rauen CA, Chadwick J.
   PMID: 21459864
   Similar articles

5. Trendelenburg positioning to treat acute hypotension: helpful or harmful?
   Shammas A, Clark AP.
   PMID: 17622805
   Similar articles

6. Hemodynamic consequences of rapid changes in posture in humans.
   Sheriff DD, Nådland IH, Toska K.
   PMID: 17463298
   Similar articles

7. Trendelenburg positioning does not prevent a decrease in cardiac output after induction of anaesthesia with propofol in children.
Search Terms

1. [The Effect of Different Positions on Block Plane of Isobaric Bupivacaine for Caesarean Section with Combined Spinal-Epidural Analgesia].
   Cai YX, Zeng K, Ni J, Huang W.
   PMID: 27263311
   Similar articles

2. Reversible coma and Duret hemorrhage after intracranial hypotension from remote lumbar spine surgery: case report.
   Bonow RH, Bales JW, Morton RP, Levitt MR, Zhang F.
   PMID: 26588496
   Similar articles
All evidence is not created equal

### American Association of Critical-Care Nurses evidence-leveling system

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Meta-analysis of multiple controlled studies or metasynthesis of qualitative studies with results that consistently support a specific action, intervention, or treatment</td>
</tr>
<tr>
<td>B</td>
<td>Well-designed controlled studies, both randomized and non-randomized, with results that consistently support a specific action, intervention, or treatment</td>
</tr>
<tr>
<td>C</td>
<td>Qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results</td>
</tr>
<tr>
<td>D</td>
<td>Peer-reviewed professional organizational standards, with clinical studies to support recommendations</td>
</tr>
<tr>
<td>E</td>
<td>Theory-based evidence from expert opinion or multiple case reports</td>
</tr>
<tr>
<td>M</td>
<td>Manufacturer’s recommendation only</td>
</tr>
</tbody>
</table>

*aFrom Armola et al, with permission.*
S & S Associated with Trendelenburg:

Anxiety and restlessness
↓
Onset of pounding vascular headache
↓
Nasal congestion causing mouth breathing
↓
Progressive dyspnea
↓
Loss of cooperation
(including overt hostility)
↓
Struggling efforts to sit upright

**Figure** Sequence of signs and symptoms associated with use of the Trendelenburg position.\(^a\)

\(^a\)Based on information from Martin.\(^3\)
And the answer is....

**Recommendations for Practice**

Most of the evidence for this intervention is grade B evidence (Table 2), indicating that use of the Trendelenburg position does not lead to beneficial changes in blood pressure or CO/CI. As a result, this position is probably not useful in rescue efforts. The associated hemodynamic effects are small and unsustained and thus are unlikely to have a clinically significant impact on hypotensive patients. Furthermore, because use of the Trendelenburg position may be associated with harmful cardiopulmonary, neurological, and vascular effects, especially in the presence of disease, the position should be used with caution even when immediate/transient benefits are desired. Instead, clinicians should position patients flat and seek or initiate available orders for additional interventions such as fluid boluses, pharmacological therapies, or other devices targeted to the cause of the hypotension.

1. Halm MA.
What else should I look at?

Healthcare is a constantly changing and evolving science

Are there other common practices that I have “always done” that we now know are not currently evidence-based?

What else should I look at?

- Pre-inflation of urinary catheter balloons to test integrity prior to insertion
- Q2 hour turns
- Routine “zeroing” of hemodynamic pressure lines
- Routine changing of dressings, tubings, lines, etc.
So How Can I Use This?

- Searching for evidence to support our practice…..not just for grad school any more

- In today’s world of transparency, we need to use actual evidence to build and strengthen our practice

- It's time to stop talking, and start questioning what we do—so that we can endorse practices that are based on evidence, and not what we have always done
References


