Module 2 Study Guide

NAP 302: Evidence-Based Practice

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Module 2 Topic: Introduction to Evidence-Based Practice (EBP)

Welcome

This course will help you learn how to use the best available evidence to improve anesthesia care, patient safety, and health outcomes. By the end of the semester, you will be able to identify healthcare problems, search for evidence, evaluate that evidence, and apply it to real clinical situations

As a future CRNA in Liberia, you will face clinical situations where resources may be limited, and healthcare challenges may be different from those in high-income countries. Evidence-Based Practice (EBP) helps you make good clinical decisions using the best available evidence combined with your clinical experience and the needs of your patients.

Module 2 Learning Objectives

After completing this module, you should be able to:

1. Define Evidence-Based Practice (EBP).
2. Explain why EBP is important for anesthesia providers.
3. Describe the difference between EBP, Quality Improvement (QI), and Research.
4. Discuss how EBP improves patient safety, quality of care, and outcomes.
5. Identify examples of EBP in anesthesia practice.
6. Begin thinking about anesthesia-related problems in Liberia that could become EBP projects.

What Is Evidence-Based Practice?

Evidence-Based Practice is:

> A problem-solving approach that uses the best available scientific evidence together with clinical experience and patient preferences to improve healthcare decisions and patient outcomes.

In Simple Terms

EBP means:

- Asking questions about clinical practice.
- Looking for the best evidence.
- Deciding whether the evidence applies to your patients.
- Using evidence to improve care.

Example

A nurse anesthetist notices that some patients have poor pain control after surgery.

Instead of saying:

> "This is how we always do it."

the CRNA asks:

> "What does the evidence show is the best way to manage post-operative pain?"

The provider then searches for evidence and uses the findings to improve patient care.

Why Is EBP Important?

EBP helps healthcare providers:

- Improve patient safety.
- Improve quality of care.
- Reduce complications.
- Reduce unnecessary costs.
- Improve clinical decision-making.
- Ensure care is based on evidence rather than tradition.

According to the Johns Hopkins model, EBP improves:

- Effectiveness (doing the right thing)
- Efficiency (using time and resources wisely)

- Patient outcomes
- Patient satisfaction
- Healthcare quality

The Three Forms of Inquiry

Healthcare professionals use three different approaches to solve problems.

Approach	Purpose
Research	Creates new knowledge
Evidence-Based Practice	Uses existing evidence to improve care
Quality Improvement	Improves local practice and processes

Research

Research is used when we do not know the answer.

Example:

- We do not know the best method for managing a particular anesthesia complication.
- A study is designed to create new knowledge.

Evidence-Based Practice

Example:

- There are many studies on post-operative pain management.
- The task is to find and apply the best evidence.

Quality Improvement

Example:

- Antibiotics are often given too late before surgery.
- The team develops a process to improve compliance with antibiotic timing.

What Happens in EBP?

The Johns Hopkins model uses three simple steps:

PET

P = Practice Question

What is the problem?

Example:

- Why are patients developing surgical site infections?

E = Evidence

What does the literature tell us?

Example:

- Search studies, guidelines, and recommendations.

T = Translation

How can we use the evidence to improve practice?

Example:

- Implement a checklist or new protocol.

Characteristics of a Good EBP Clinician

Good EBP clinicians:

- Are curious.
- Ask questions.
- Challenge unsafe traditions.
- Look for evidence.
- Think critically.
- Apply evidence to local practice.

Important Attitudes

- Open-mindedness
- Curiosity
- Flexibility
- Reflection
- Perseverance

Example of EBP in Anesthesia

The WHO Safe Surgery Checklist is one of the most famous examples of EBP.

Researchers found:

- Surgical complications were common worldwide.
- Many complications were preventable.
- Teams often failed to communicate effectively.
- Important safety practices were inconsistently followed.

After reviewing evidence, the WHO developed the Safe Surgery Checklist.

Results:

- Death rates decreased.
- Surgical complications decreased.
- Surgical site infections decreased.

This is an example of:

1. Identifying a problem.
2. Reviewing evidence.
3. Developing recommendations.
4. Implementing changes in practice.

Why EBP Matters in Liberia

Liberia faces important anesthesia and surgical challenges.

Examples may include:

- Limited monitoring equipment.
- Delays in emergency surgery.
- Post-operative pain management.
- Surgical infection prevention.
- Airway management challenges.
- Access to pulse oximetry.
- Surgical safety checklist compliance.

These real-world challenges can become future EBP projects.

Think About Your Future EBP Project

As you move through the course, begin asking:

What problems have I seen in practice?

Examples:

- Delayed administration of prophylactic antibiotics.
- Lack of pulse oximetry during patient transport.
- Poor documentation of post-operative pain scores.
- Delayed recognition of airway compromise.
- Inconsistent use of the WHO Surgical Safety Checklist.

These observations often become strong EBP projects.

Key Terms to Know

Term	Meaning
Evidence-Based Practice	Using best evidence to improve care
Research	Generating new knowledge
Quality Improvement	Improving local systems and processes
Practice Question	The clinical problem to be solved
Evidence	Information used to answer the question
Translation	Applying evidence to practice
Outcomes	Results of patient care
Patient Safety	Preventing harm to patients

Key Takeaways

1. EBP is a systematic method for improving patient care.
2. EBP combines research evidence, clinical expertise, and patient preferences.
3. EBP is different from research and quality improvement.
4. Good EBP clinicians are curious and ask questions.
5. The Johns Hopkins model uses the PET process: Practice Question, Evidence, and Translation.
6. The WHO Safe Surgery Checklist is an example of EBP improving anesthesia and surgical outcomes.
7. EBP is essential for improving access, quality, and safety of anesthesia care in Liberia.

Self-Check Questions

1. What is Evidence-Based Practice?
2. How is EBP different from research?
3. How is EBP different from quality improvement?
4. What does PET stand for?
5. Why is critical thinking important in EBP?
6. Give one example of an anesthesia-related practice problem in Liberia.
7. How did the WHO Safe Surgery Checklist improve patient outcomes?
8. Why should anesthesia providers use evidence instead of tradition alone?

Reflection Question:
What is one anesthesia or perioperative problem that you have seen in Liberia that you think should be improved using evidence-based practice?

Sources: 2026 Course Syllabus Evidence Based Practice Appraising and Translating(rev); Module 2 Lecture_NAP302_EBP_ Intro to EBP_Week 2.pdf; Johns Hopkins Nursing Evidence-Based Practice, Third Edition_ Model and Gui