



Tabriz University
of Medical Sciences



Research center for EBM

Patient safety and Evidence Based practice

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Evidence based medicine

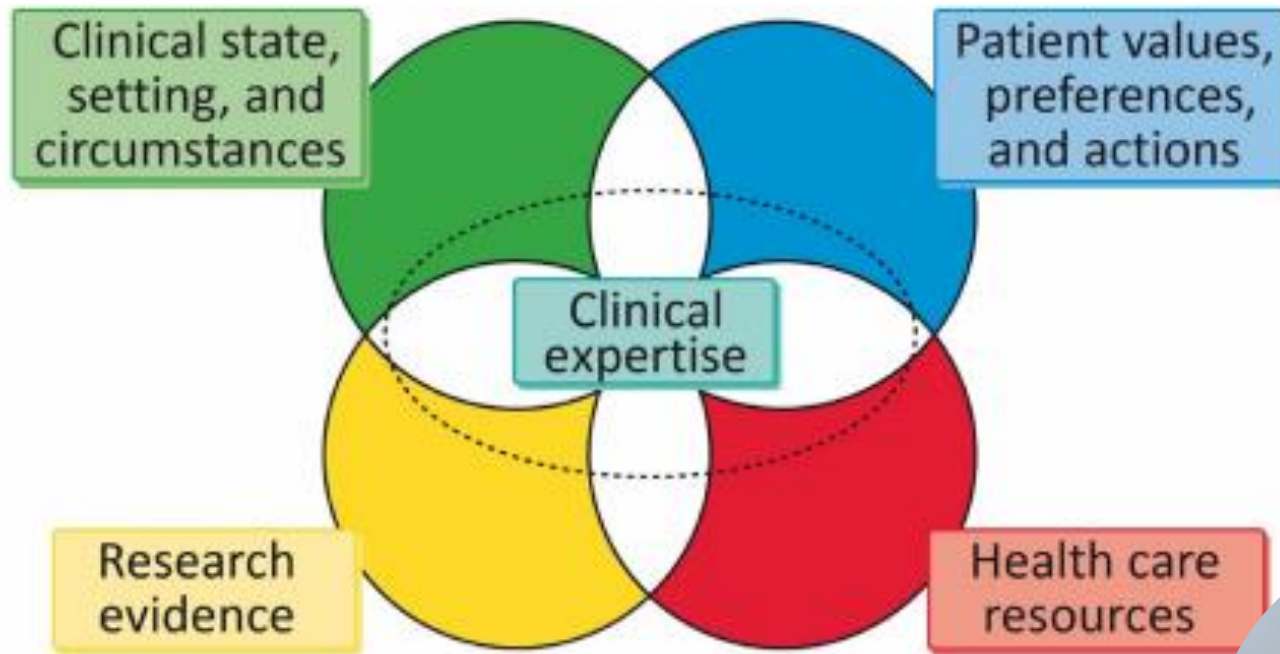


Fig. 1 - Clinical expertise in the era of evidence-based urology.





Why???

- The paradigm of **evidence-based medicine** arose from the realization that health care interventions, no matter how commonsense or physiologically sound, often lack benefit and sometimes even cause harm.
- Since **safety practices** also may prove ineffective, wasteful, or even harmful, there is no reason to exempt most safety practices from the scrutiny of an evidence-based approach.
- Moreover, in the face of **limited resources**, evidence of effectiveness provides a useful parameter for prioritizing practices, just as with other health care interventions.





Defining Patient Safety

- In the evidence report, we defined a patient safety practice as a type of process or structure whose application reduces the probability of adverse events resulting from exposure to the health care system across a range of diseases and procedures.





Why this definition?

- **First**, the focus on prevention of adverse events due medical care,
- **Second**, physicians' judgments regarding the preventability of errors tend to be poorly reproducible.
- **Third**, our definition served a pragmatic function by allowing relatively unambiguous identification of practices that “reduce the probability of adverse events resulting from exposure to the health system”—in other words, practices that make care safer.





Patient Safety Practices Included for Review



- Practices Targeting Adverse Drug Events

Computerized physician order entry	Automated medication dispensing devices
Clinical decision support systems	Dosing nomograms for heparin or warfarin
Computerized systems for alerting providers to (potential or actual) adverse drug events	Anticoagulation clinics and services
Support from clinical pharmacists	Self-monitoring and dose adjustment for outpatient warfarin
Unit dose drug distribution systems	





Practices Targeting Infectious Complications of Hospitalization

- Strategies for increasing compliance with hand washing
 - Use of barrier precautions (including gloves, gowns, dedicate equipment, patient or staff cohorting) to prevent transmission of serious nosocomial infections
- Restriction of antibiotic use to limit the prevalence of highly resistant organisms
- Silver alloy urinary catheters to reduce the risk of nosocomial urinary tract infections
- Suprapubic catheters to reduce the risk of nosocomial urinary tract infections
- Use of maximum sterile barrier precautions during central venous catheter placement to prevent catheter-related infections
- Use of antibiotic-impregnated central venous catheters to prevent catheter-related infections
- Use of chlorhexidine gluconate at the skin site before central venous catheter placement
- Use of heparin with central venous catheters
- Tunneling of short-term central venous catheters
- Routine changes of central venous catheters
- Routine antibiotic prophylaxis for patients with central venous catheters
- Semirecumbent positioning to reduce the risk of ventilator-associated pneumonia
- Continuous bed oscillation to reduce the risk of ventilator-associated pneumonia
- Continuous aspiration of subglottic secretions to reduce the risk of ventilator-associated pneumonia
- Selective decontamination to reduce the risk of ventilator-associated pneumonia
- Use of sucralfate instead of H₂ antagonists to reduce the risk of ventilator-associated pneumonia



Practices Targeting Complications of Anesthesia, Surgery, or Other Invasive Procedures

Localizing specific procedures and surgeries to high-volume centers	Use of real-time ultrasound guidance during central line insertion
Appropriate use of antibiotic prophylaxis to reduce the risk of surgical site infections	Use of preoperative anesthesia checklists to reduce the risk of adverse events due to equipment failure
Maintenance of perioperative normothermia to reduce the risk of surgical site infections	Routine intraoperative monitoring of vital signs and oxygenation
Routine use of supplemental perioperative oxygen to reduce the risk of surgical site infections	Perioperative β -blockers in patients to reduce the cardiac complications of surgeries
Tight perioperative glucose control to reduce the risk of surgical site infections	Counting sharps, instruments, and sponges





Cont.

- Practices Targeting **Noninfectious Complications of Hospitalization**
- Practices Related to Changes in **Health Care Structure and Organization**
- Practices Targeting **Systems Issues and Human Factors Engineering**
- **Novel Approaches to Education and Training**
- Practices Targeting **Inadequate or Incomplete Informed Consent and Advance Directive Discussions**





Principles of Evidence-Based Medicine Applied to the Patient Safety

- Most have a published study with a relevant level of evidence(except very obvious believes)
- Prioritizing Clinical Over Surrogate Outcomes
- Generalizability (Efficacy vs Effective)
- Possible Harm



The JBI Model of Evidence-Based Healthcare





Access and understanding

Internet access for 67%
Low understanding of EBM terms
Huge demand for more education

Barriers to EBM

Unrealistic patient expectation and demand
Time, Money
Skills

Resources to provide

Evidence-based practice guidelines
“Evidence-based Medicine”, *Bandolier*
Ongoing quality education





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JBI Approach to Evidence Implementation

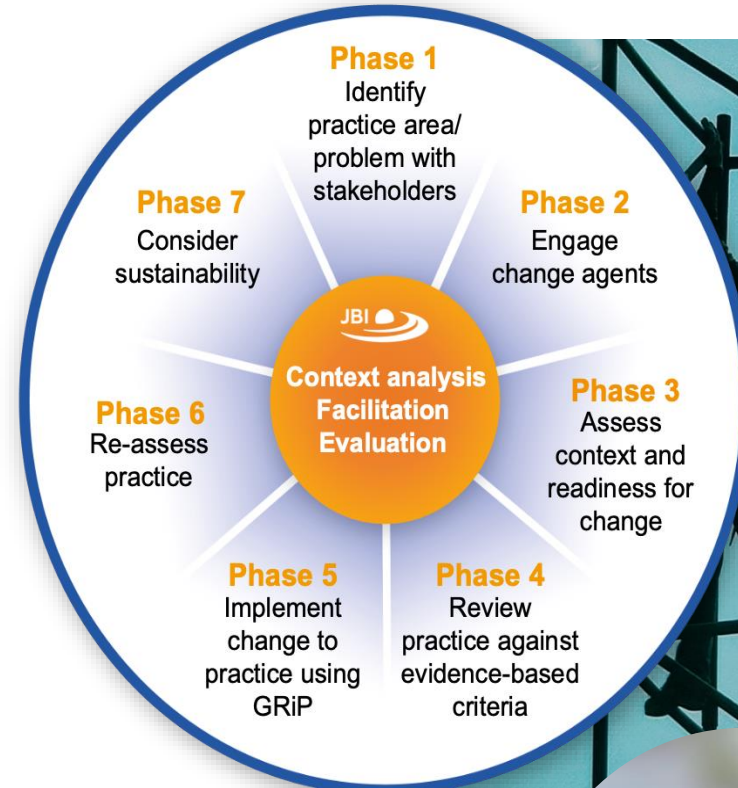




JB I Approach to Evidence Implementation

A pragmatic approach for evidence implementation projects

- 7 phase process
- Compatible and informed by many other theories/frameworks
- Each phase can be informed by relevant theories





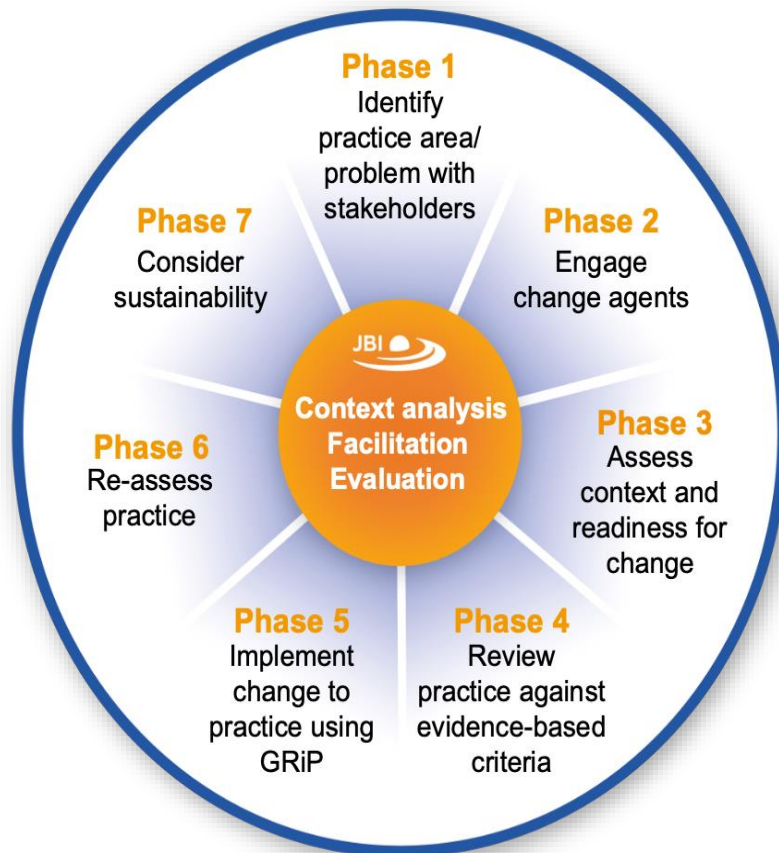
Key Aspects of the JBI Approach

1. What is the clinical problem?
2. What does the evidence say?
3. Who do you need to engage with?
4. What is the context and are they ready to change?
5. What is actually happening in the clinical setting?
6. How do we identify barriers and strategies?
7. How do we see if it is working?
8. How do we make this sustainable?





JBI Implementation Framework



Seven Phases to Implementa tion





JOANNA BRIGGS INSTITUTE



The Joanna Briggs Institute Endorsement Program



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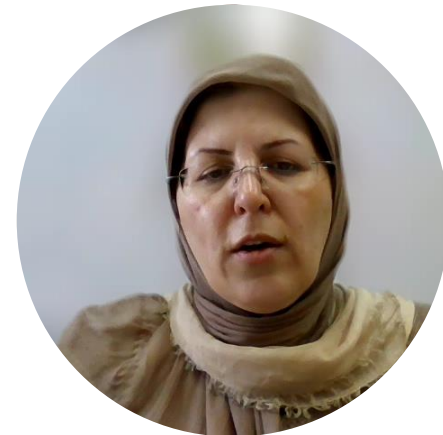




What is JBI Endorsement?

JBI Endorsement is a **recognition** awarded to health organizations that demonstrate commitment to evidence-based healthcare and organizational wide culture of innovation and excellence.

- ❖ FULL Endorsement
- ❖ PROVISIONAL Endorsement





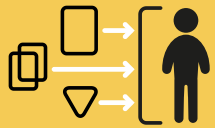
FULL and PROVISIONAL Endorsement

- Collaboration and engagement with JBI and its Collaborating Entities
- Access and support with a range of courses, training, and workshops
- Discounted fees for JBI's world-class training programs including the JBI Evidence-based Clinical Fellowship and Comprehensive Systematic Review Training programs (Adelaide only)
- Discounted registration for JBI Colloquia
- Opportunities for participation in JBI activities
- Opportunity to present in a JBI-organised conference (national/international)

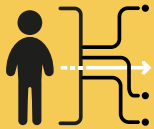




STANDARDS: The 3Cs



Commitment to Evidence-based Healthcare



Continuous quality improvement



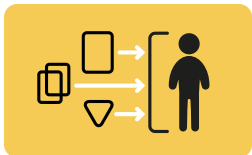
Capacity building





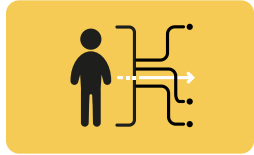
Standard 1:

Commitment to evidence-based healthcare



- Criterion 1: All staff in the organization have access to evidence-based resources.
 - *Compliance measure: Organization-wide subscription to the JBI Evidence-based Practice Database via Ovid*
- Criterion 2: All staff in the organization have access to continuing professional development related to evidence-based practice.
 - *Compliance measure: At least 4 JBI-focused workshop/training conducted on any evidence-based practice topic OR JBI Journal Club sessions around best practice in a clinical area of interest OR JBI online training are undertaken each year*





Standard 2:

Continuous quality improvement

- Criterion 3: The organization has a documented framework or a plan for a continuous quality improvement program with identified key priority areas, and a system for monitoring the implementation of the program
 - *Compliance measure*: A documented framework or plan that identifies key area/s for improvement, intended outcomes, action/improvement plan, success measures, and timelines is in place.
- Criterion 4: The organization has a nominated individual or group with a direct reporting pathway to senior management/executive who coordinates the endorsement program and acts as a central point of contact
 - *Compliance measure*: A nominated individual or group who of contact to JBI.

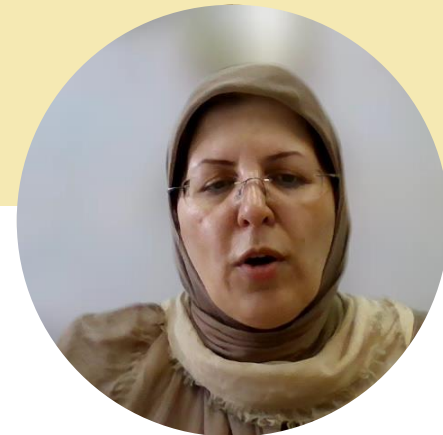




Standard 3: Capacity building

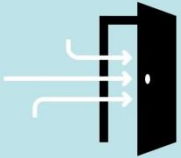


- > Criterion 5: The organization provides opportunities for staff training on evidence implementation and quality improvement
 - *Compliance measure*: At any given time, at least two staff have completed the JBI Evidence-based Clinical Fellowship Program.





Who is eligible to apply?



- Primary, secondary and tertiary care organizations
- Clinics and other outpatient and ambulatory care settings
- Home health, or community health agencies
- Long term care, nursing homes, hospices, aged care facilities





JBI Endorsement



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Benefits

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- Access & support with courses, training and workshops
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- Discounted registration for JBI Colloquia
- Opportunities for participation in JBI activities
- Opportunity to present in a JBI-organised conference (national and international)



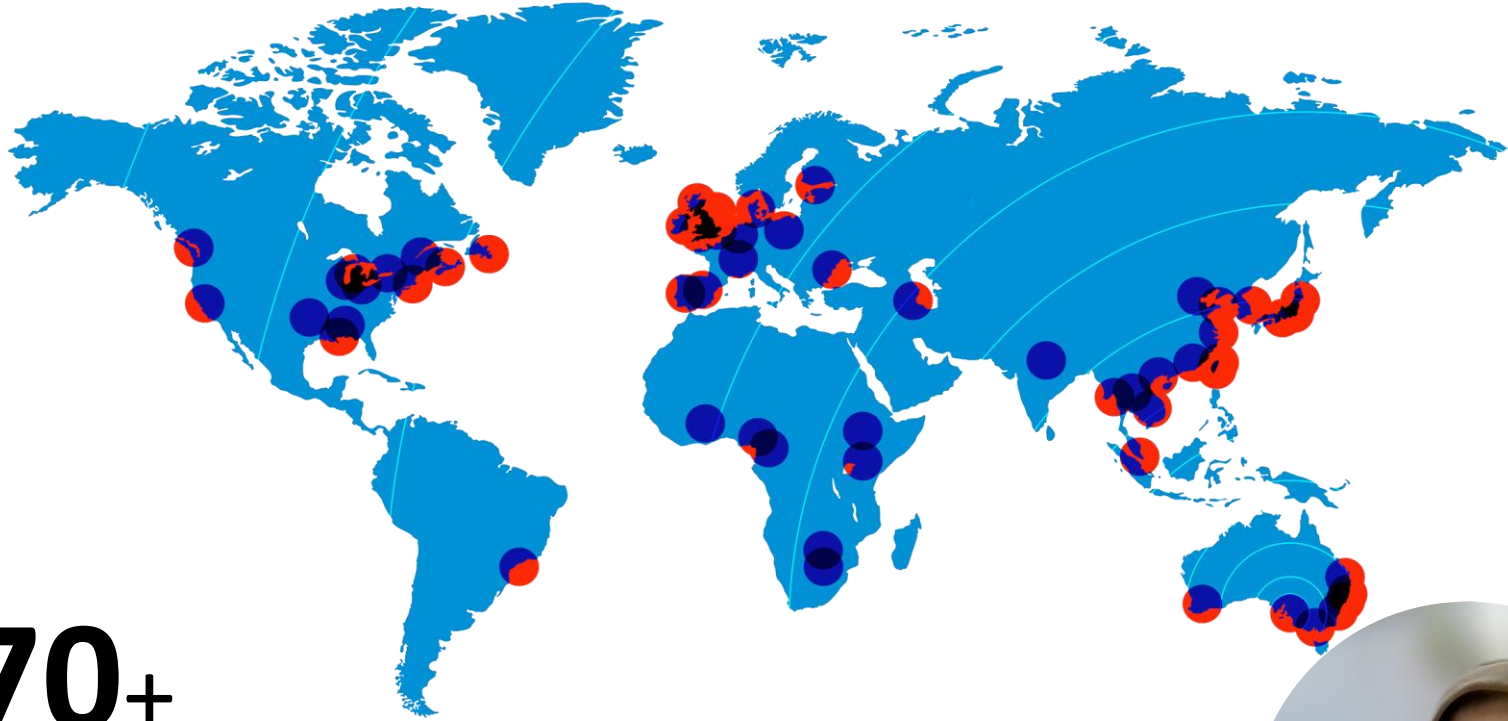


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Joanna Briggs Collaboration



70+

Collaborating
Entities



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