**EVIDENCE BASED CASE STUDY SCENARIOS**

**ACUTE RENAL INJURY**

Mr SE, is a 38-year-old male patient admitted. He was unable to have a CT angio while in the ED and has been admitted to floor to wait for the workup. He came into the ED a couple hours ago with complaints of shortness of breath. He needs to have a CT angio to rule out pulmonary embolism (PE). The radiology staff said they were coming to get him shortly for his scan. The night nurse did the admission history. His history includes Type 1 Diabetes, smoker, and recent IV drug use. He states he is not an addict—just uses occasionally. He reports recently injuring his back and has been taking Ibuprofen to control the pain. He is a seasonal worker and is somewhat stressed about being admitted to the hospital because he does not have insurance. He wants to be discharged as soon as his CT scan results are back. Dr. MD said she would be in to see him shortly. He has elevated BUN/Creatinine. He is on IV fluids and medications. He is confirmed to have Acute kidney injury.

**Evidence based case study questions**

1. Why should we not send SE to CT scan with elevated BUN/Creatinine)?
2. When the Acute Kidney Injury is discovered, what other things would need to be considered in relation to the patient? Example, IV fluids running (too fast, too slow, IVF are ok??) and I & O. Gathering a patient history on how much the patient was taking of Ibuprofen in 24 hours
3. What are the primary nursing diagnosis and plan for care/interventions?
4. If in the beginning your primary focus was the suspected PE, after you realized that the patient had acute kidney injury, was it hard to shift your focus?
5. As a nurse, how do you tell patients they will not be receiving a test because of a potential problem has come up which they are unaware of? (e.g. elevated BUN/Creatinine was unknown to the patient)

**INTRODUCTION TO EVIDENCE-BASED CASE STUDY**

1. **Evidence-Based Practice**
	1. What is evidence-based nursing practice?
		1. "Evidence-Based Nursing is the process by which nurses make clinical decisions using the best available research evidence, their clinical expertise and patient preferences."
			1. [Source: [University of Minnesota Evidence Based Nursing](http://evidence.ahc.umn.edu/ebn.htm) page]
		2. Magnet hospitals: research and evidence-based practice mandates -- "Quality patient care is provided through sustaining excellence in nursing services."
		3. Solves problems encountered by nurses by carrying out four steps below:
	2. EBP is a 4 step process:
		* Clearly identify the issue or problem based on accurate analysis of current nursing knowledge and practice
			+ Define your search question
				- Flemming, K. [Asking Answerable Questions](http://ebn.bmjjournals.com/cgi/content/full/1/2/36). Evid Based Nurs 1998; 1:36-37.
		* Search the literature for relevant research
			+ Select appropriate resources: Google Scholar, CINAHL, PubMed, Proquest, Springer, Sage, Lippincott, others
			+ Design search strategy that optimizes value of selected databases and their features
			+ Use thesaurus terms whenever possible
			+ Select limits
			+ Review results; modify
		* Evaluate the research evidence using established criteria regarding scientific merit
			+ Criteria for critical appraisal of qualitative students (under qualitative EB Nursing
				- [Source: [University of Minnesota Evidence Based Nursing](http://evidence.ahc.umn.edu/ebn.htm) page]
		* Choose interventions and justify the selection with the most valid evidence
	* Key formats for EBP:
		+ Original research
			- Individual studies
		+ Evidence summaries
			- Systematic reviews: integrative reviews; meta-analysis
		+ Translation literature
			- Care Plans
			- Clinical Innovations
			- Critical Path
			- Practice guidelines
			- Protocols
			- Standards
2. **Examples of evidence based nursing practice**
	1. Joanna Griggs Institute, <http://www.joannabriggs.edu.au/>
	2. McGill University Health Centre, Nursing Research, <http://www.muhc-ebn.mcgill.ca/>
	3. UNC, Health Sciences Library, <http://www.hsl.unc.edu/Services/Tutorials/EBN/index.htm>
	4. University of Minnesota, Evidence Based Nursing, <http://evidence.ahc.umn.edu/ebn.htm>
	5. University of York, Centre for Evidence-Based Nursing, <http://www.york.ac.uk/healthsciences/centres/evidence/cebn.htm>
	6. Cochrane database: [www.cochrane.org](http://www.cochrane.org)
	7. [www.nursingsociety.org](http://www.nursingsociety.org)
	8. [www.guidelines.gov](http://www.guidelines.gov)
3. **After reviewing the evidence based nursing literature, prepare the evidence based case study: Example is cited here.**
4. Introduction: describing the clinical question or problem, including the PICO formatted question. Purpose/aim/goal is clearly stated
5. Evidence based nursing literature: summarizing the research articles addressing the problem. Current evidence related to the clinical problem is succinctly presented. Summarizes the evidence findings, making clear the relationship between the findings and the clinical question. Methods/procedures for implementation are clearly stated. Concise analysis of data collection and relevant information are provided with results in a sequential/logical manner.
6. Conclusion: addressing your recommendations for change in practice. After reviewing the literature, what change (if any) in current practice should occur, or should current practice standards continue? Recommendations/outcomes/findings are highlighted in manner appropriate for practice based on the evidence are made clear