

## Medical Literature Review



RURAL HEALTHCARE QUALITY NETWORK

# Quality Matters...

### Infectious Disease

**Question:** Has hospital acquired CDI (clostridium difficile infection) surpassed MRSA as the leading cause of nosocomial infections in community hospitals?

**Answer:** Yes. A one year study involving 3 million inpatient days revealed CDI to have surpassed MRSA as the leading nosocomial infection, identified during the hospital stay. Reduction in infection rate can be significantly enhanced by aggressive daily room cleansing with Clorox 6.15% sodium hypochlorite wipes.  
**Source:** *Fifth Decennial International Conference on Healthcare-Associated Infections, March 20, 2010.*

### Family Practice/Internal Medicine

**Question:** The mainstays of treatment for severe hyperkalemia are IV bicarbonate and calcium, glucose and insulin, and oral Kayexalate. What additional medication can lower serum potassium acutely by 0.5-1.5 meq/L?

**Answer:** Nebulized albuterol, 5mg mixed with 3cc of isotonic saline, administered every 20 minutes as tolerated. Onset of action is 30 minutes. Duration of action is 2-3 hours.  
**Source:** *eMedicine, from WebMD, February 20, 2007.*

### Medication Management

**Question:** Are NSAIDs recommended for the treatment of symptoms associated with the common cold?

**Answer:** NSAIDs, which block inflammatory mediators such as kinins and prostaglandins, offer beneficial effects on headache, ear pain, and muscle/joint pain associated with the common cold. (Do recall that NSAIDs are not benign medications.)  
**Source:** *Cochrane Database, July 20, 2009.*

### Urgent/Emergent Care

**Question:** What local anesthetic appears to be underutilized in the ED?

**Answer:** Bupivacaine. Although its onset of action is slower than lidocaine, its duration of action is considerably longer. This is particularly relevant in the use of the digital block where finger injury may be associated with considerable prolonged pain.  
**Source:** *Emergency Medicine Journal, March 2007; 24(3):189-193.*

### Nursing Focused Care

**Question:** Packed red blood cells are the most common blood product administered. Each unit of PRBCs will raise the average sized adult's hemoglobin level by what degree?  
**Answer:** Each unit of PRBCs will raise the non-bleeding patient's hemoglobin by 1-1.5 grams.  
**Source:** *Text, Transfusion Medicine. McCullough, J.J. (1998).*

### Risk Management

**Question:** What percentage of scaphoid (navicular) fractures are not visible on the initial x-ray?  
**Answer:** 15-20%. If clinical suspicion is high for fracture, despite negative x-ray, then additional imaging is warranted. Options include MRI, CT, and bone scan. MRI appears to be the most sensitive study.  
**Source:** *British Journal of Radiology, 2003; 76:296-300.*

### Practice Pearl

**Question:** Approximately one million patients in the US are on chronic methadone therapy, the majority for chronic pain. Why has the FDA issued a clinician safety alert and a black box warning for this medication?

**Answer:** Methadone has significant proarrhythmic properties, with prolongation of the QTc and associated torsade de pointes. All patients who are treated with methadone should have a pre-treatment ECG, repeated at 30 days, and yearly thereafter. Doses of greater than 100mg/day enhance the risk of arrhythmia.

**Source:** *Annals of Internal Medicine (online issue), January 20, 2009.*