



Near Glacier National Park, Montana



PIC QUESTION OF THE WEEK: 8/29/11

Q: What are the current recommendations for the treatment of mastitis in breastfeeding women?

A: Mastitis may be simply defined as an inflammation of the breast. This condition possesses multiple etiologies, but one of the most common is bacterial infection. Mastitis occurs in approximately 10% of breastfeeding mothers while abscesses develop in an estimated 0.4%. Timely recognition and treatment are essential since complicated cases can result in deep tissue infection that necessitates the discontinuation of breastfeeding. Mastitis is diagnosed by evaluating localized signs and symptoms and systemic involvement. Breast tissue may become warm to the touch, assume an erythematous appearance, and be associated with localized pain and tenderness. Fever, malaise, nausea and vomiting may accompany breast lesions. Two of the most common pathogens implicated in mastitis are *S. aureus* and *S. epidermidis*. Less frequently associated organisms include methicillin-resistant *S. aureus* (MRSA), *E. coli*, and various species of streptococci and candida. Rare cases have also been reported due to salmonella, *M. tuberculosis*, brucella, and pseudomonas species. Supportive treatment includes bed rest and the use of mild analgesics such as acetaminophen and ibuprofen. Women are encouraged to continue to breastfeed and, as much as possible, maintain use of the involved breast (or use a breast pump). Antibiotic treatment for bacterial mastitis should be implemented if symptomatic improvement does not occur within 24 hours. Penicillinase-resistant penicillins such as dicloxacillin and oxacillin are considered the drugs of choice for initial treatment of mastitis. Cephalexin may be used in patients with a history of penicillin allergy; however, clindamycin would be preferred in those experiencing *immediate* (e.g. anaphylaxis) reactions to penicillin. MRSA is typically treated with vancomycin (occasionally in combination with rifampin) or sulfamethoxazole-trimethoprim. Duration of treatment typically extends for 10 to 14 days even if signs and symptoms resolve within 24 to 48 hours of implementing antibiotic therapy. In some instances, infection may not respond to first-line antibiotic therapy, thus necessitating culture of the milk in order to isolate the pathogen. In complicated presentations of mastitis as well as hospital-acquired cases, it is reasonable to consider the need for treatment of resistant antibiotic strains as well as gram-negative organisms. Needle aspiration may be necessary if antibiotics fail and/or an abscess develops. *Candida* infections are typically characterized by burning and, nipple pain and treated with topical agents such as nystatin, miconazole or ketoconazole cream for 3 to 4 days. Mastitis is a relatively common condition, especially in breastfeeding women. Fortunately, it is generally responsive to appropriate antimicrobial therapy.

References:

- Spencer J. Management of mastitis in breastfeeding women. *Am Fam Physician* 2008;78:727-32.
- Marchant DJ. Inflammation of the breast. *Obstet Gynecol Clin North Am* 2002;29:89-102.
- Academy of Breastfeeding Medicine Protocol Committee. ABM Clinical Protocol #4: Mastitis. Revision, May 2008. *Breastfeed Med* 2008;3:177-80.
- Dixon M, Khan LR. Treatment of breast infection. *BMJ* 2011;342:484-9.

Melinda B. Snyder and Tyler L. Micsky, Pharm.D. Candidates; Meghan J. Malone, Pharm.D.

The PIC Question of the Week is a publication of the Pharmaceutical Information Center, Mylan School of Pharmacy, Duquesne University, Pittsburgh, PA 15282 (412.396.4600).