

Long-Term Care Survey Alert

INFECTION CONTROL: 2 Studies Shed Light on UTI Clinical Sx, Antibiotic Resistance

Check out these insights for diagnosing, treating this common infection.

Deciding which clinical symptoms suggest urinary tract infection (UTI) can be tricky. Antibiotic resistance is also a problem when treating UTI in nursing homes.

Positive news: Research findings from Yale University may pave the way for helping to resolve these common dilemmas.

One study, published in the *Journal of the American Geriatrics Society*, found that found three clinical features -- dysuria, a change in the character of urine, and mental status change -- flagged nursing home residents at high risk of having bacteriuria and pyuria.

The study defined bacteriuria as >100,000 colony forming units on urine culture, and pyuria as >10 white blood cells on urinalysis. The research involved 551 nursing home residents who were each followed for a year to identify whether they developed clinically suspected UTI. The residents did not have indwelling urinary catheters. "If validated in future cohorts," the researchers note in the study report, "these clinical features with bacteriuria plus pyuria may serve as an evidence-based clinical definition of UTI to assist in management decisions" (Manish J et al. *J Am Geriatr Soc* 57:963-970, 2009).

Nailing Down Resistance

In a second study, Yale researchers examined urine samples from residents with clinically suspected UTI to identify antimicrobial resistance patterns. The residents in the study didn't have indwelling urinary catheters. *E. coli* ranked as the predominant organism isolated from the urine cultures, and the bug was frequently resistant to commonly prescribed antibiotics.

"Trimethoprim sulfamethoxazole remains the best empiric antimicrobial therapy for a urinary tract infection, but nitrofurantoin should be considered if *E. coli* is identified," the study authors note in their report (Das, R et al. *Infect Control Hosp Epidemiol* 2009;30:1116-1119).

MDS tips: To code a UTI on the MDS 2.0, you need a documented physician diagnosis of UTI, and significant lab findings, which the physician determines. The significant lab findings don't have to include a urine culture.

The resident also has to have symptoms of UTI, which can include a mental status change. "If the physician documents a diagnosis of UTI -- and the resident doesn't have any symptoms of UTI or lab work -- then I would not code UTI in I2," advises **Ron Orth, RN, NHA, CPC, RAC-MT**, president, Clinical Reimbursement Solutions LLC in Milwaukee.