The GeriJournal

Volume 12, Number 2
February 2017
A publication of GeriatRx Pharmacy

UTI Dx and Tx

We've made great strides in UTI treatment over the last couple of decades. We still have some work to do, however, in limiting antibiotic use and optimizing drug choice. We are recommending another Bugs & Drugs tool (the *UTI in LTCF Checklist* – easily "Googleable") to assist us in this regard.

Our greatest challenge is to determine whether to treat potential UTIs in the first place. Almost half of our LTC population will grow enough bacteria to suggest a UTI diagnosis when cultured, even though they are not infected. Voiding barriers (e.g. BPH, uterine prolapse), poor hygiene, functional deficits, etc., lead to microbial colonization - asymptomatic bacteriuria. Cultures will often be positive, with bacterial counts above 10^6 or 10^7 cfu/L. Residents catheterized for more than 14 days will always have bacteriuria. As such, urine should only be cultured if there are definitive signs of UTI.

What are these signs? Acute dysuria (painful urination – burning, stinging, itching), plus increased frequency, urgency or new incontinence. Fever is another symptom, though non-specific, and flank/suprapubic pain and significant blood loss in the urine are other indicators.

Cognitively intact residents can easily provide information regarding these symptoms. Those with dementia are more difficult to assess. Mental status changes, e.g. confusion, behaviours, etc. or increased falls (combined with a positive culture) often lead the prescriber to an erroneous UTI diagnosis. Dehydration, new drug therapy, infections at other sites, etc., can trigger these non-specific symptoms. Responsive behaviours are not associated with UTI, but outbursts during urination are meaningful. Pyuria and changes in urinary appearance or odor are also not diagnostic, but can mislead facility staff.

Catheterized residents also present a major challenge. Catheters should be used for the shortest time possible and never for incontinence alone. If chronic catheterization is required, narrow bore tubing should be inserted aseptically, and proper hygiene should always be observed when attending to the catheter and drainage bag. Fever, rigors (if no alternate site infection can be located), hypotension, acute mental status changes, discharge around the catheter all support the UTI diagnosis, along with a bacterial count of at least 10^8 cfu/L. Prophylactic antibiotics should not be used to prevent any type of recurrent UTI, as these will only encourage resistance, while not reducing UTI frequency.

There is much more to say, but the *UTI Checklist* does a great job of capturing most key areas in a single sheet. One strong message from the checklist is that fluids should be pushed for 24-hours in residents who are relatively stable (and are not on fluid restriction). This alone will often resolve symptoms and avoid potentially harmful antibiotic therapy. If urine is to be obtained for culture, it should be collected before treatment is initiated. A narrow spectrum agent should be used and if the resident responds within 48 – 72 hours, treatment should be limited to one week. Take a look at the *UTI Checklist*. It can be a great tool to assist with UTI Dx and Tx.

Palliative Changes

Until now, many injectable drugs had been covered by ODB, but only when ordered by MDs with palliative privileges through the OMA. Some now have general LU coverage (code 481) when ordered by any authorized prescriber for true palliative patients. The list includes: Dilantin®, Maxeran®, Lasix®, Gravol®, diazepam and lorazepam. This change adds convenience and fairness in critical end of life situations.

Prepared by Randy Goodman
Certified Geriatric Pharmacist