Studies Raise Questions about Appropriate Urinary Tract Infection Management

New studies evaluate the presence of urinary tract infections (UTIs) and their impact on screening, diagnosis and treatment guidelines

New Orleans, LA, May 16, 2015 — Four new studies examining how urinary tract infections (UTIs) are diagnosed and managed will be presented during the 110th Annual Scientific Meeting of the American Urological Association (AUA). The research will be highlighted by study authors during a special press conference. Tomas L. Griebling, MD, MPH, professor of urology at the University of Kansas School of Medicine will moderate the session at the Ernest N. Morial Convention Center in New Orleans, LA on May 16, 2015 at 1:00 p.m. CT.

The four studies examine multiple factors, including:

- How women with recurrent uncomplicated UTIs are diagnosed and treated;
- Assessment of urologic screening in patients following spinal cord injury (SCI);
- Examination of asymptomatic bacteriuria (ABU) as a “universal phenomenon” regardless of gender or bladder status; and
- Evaluating the impact of misdiagnosis of UTIs can have on bladder cancer outcomes.

Study Details
Publication Number: MP9-05

Incidence and Characteristics of Uncomplicated Recurrent Urinary Tract Infections in a National Sample of Community Dwelling Women: Urine culture is a valuable tool in effectively managing UTIs and can minimize the need for more extensive treatments, according to a new study from researchers in California and Michigan. Using MarketScan data from 2003-2011, researchers identified 28,545 community-dwelling women with uncomplicated recurrent UTIs and found that using an urine culture test to find and identify the cause of the UTI, decreased the subsequent use of high-cost resources, such as emergency room visits or intravenous antibiotics. The study was supported by the National Institute of Diabetes and Digestive and Kidney Diseases as part of the Urologic Diseases of America Project.

Study Details
Publication Number: PD1-09

Urological Surveillance and Medical Complications After Spinal Cord Injury in the United States: Most patients with spinal cord injury (SCI) do not receive the recommended screening for urological complications, according to researchers at University of Michigan, Ann Arbor, MI; University of California, Los Angeles, CA; and RAND Health, Santa Monica, CA. Examining Medicare data from 2007-2010, researchers identified 7,132 SCI patients, the majority of which were functionally paraplegic (82.4 percent) and Caucasian (80.9 percent). Research showed most (70.5 percent) patients received some, but not all, screening tests, while 24.6 percent received all three, and only 4.9 percent received no screening over the two-year period. Further research showed:

- Only 35.7 percent of patients saw a urologist during the two-year period.
- Of the patients, 48.6 percent had some form of upper tract evaluation, with the majority being CT scans (40 percent) followed by ultrasound (35.2 percent), and 90.7 percent had serum creatinine levels assessed.
- More than a third (35.8 percent) of SCI patients had a minor urologic complication during their two-year follow up period, with cystitis being the most common (21.1 percent). Seventeen percent of patients had moderate complications and 8 percent had severe complications.

Study Details
Publication Number: MP20-07

All Asymptomatic Bacteriuria, All the Time: Having bacteria in the urine without urinary tract symptoms (asymptomatic bacteriuria, or ABU) may be more universal than previously thought, according to a new cross-sectional study by researchers at Children’s National Health System and National Rehabilitation Hospital in Washington, DC. The presence of asymptomatic bacteriuria may result in overtreatment of UTIs, particularly in populations with underlying urinary disease. Using genetic sequencing in urine samples, researchers assessed samples of 47 patients and found that, despite presence of asymptomatic bacteria, only 43 percent had positive
urine culture results. Data were consistent, regardless of gender or bladder status (normally functioning or neurogenic).

**Study Details**
Publication Number: PD23-10

**Urinary Tract Infection Is Associated With Worse Bladder Cancer Outcomes in the Medicare Population:** Implications for Sex Disparities: On average, women experience greater delays in bladder cancer diagnosis compared to men (72.2 days versus 58.9 days respectively), and this could be a result of symptoms misdiagnosed as a UTI, according to new data from the University of Wisconsin, Madison, WI and University of Chicago, Chicago, IL. Using the Surveillance, Epidemiology and End Results (SEER) cancer registry linked with Medicare claims from 2007-2009, researchers identified 12,195 patients (9,326 men; 2,869 women) ages 66 and older, who were treated for UTI or hematuria within one year of being diagnosed with bladder cancer. Analysis showed an increased risk of death in the women presenting with hematuria or UTI symptoms and that both women and men initially presenting with UTI were at greatest odds of significant delays in diagnosis, adverse pathology, and risk of death from bladder cancer.

“Appropriate diagnosis and management of UTIs is critical, as these data show,” said Tomas L. Griebling, MD, MPH, session moderator and professor of urology at the University of Kansas Medical School. “Specific evaluation strategies and treatment choices need to be placed in the context of each patient’s overall health and clinical condition. Clinicians should be comfortable with the essential components of the evaluation and management of these conditions and target their care to the needs of the patient.”

**NOTE TO REPORTERS:** Experts are available to discuss this study outside normal briefing times. To arrange an interview with an expert, please contact the AUA Communications Office at 443-909-0839 or email cfrey@AUAnet.org.

**About the American Urological Association:** The 110th Annual Meeting of the American Urological Association takes place May 15-19 at the Ernest N. Morial Convention Center in New Orleans, LA.

Founded in 1902 and headquartered near Baltimore, Maryland, the American Urological Association is a leading advocate for the specialty of urology, and has more than 21,000 members throughout the world. The AUA is a premier urologic association, providing invaluable support to the urologic community as it pursues its mission of fostering the highest standards of urologic care through education, research and the formulation of health policy.

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