1042. Prevalence of Fluoroquinolone- and Ceftriaxone-resistant *E. coli* among U.S. Emergency Department Patients with Acute Pyelonephritis

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Session: 121. UTIs: Management and Issues in Drug-Resistance
Friday, October 10, 2014: 12:30 PM

Background. To determine the prevalence of and potential risk factors for fluoroquinolone-resistant and ESBL-producing *E. coli*, we report preliminary results of patients with acute pyelonephritis presenting to a network of U.S. emergency departments (EDs, *EMERGE*ncy ID NET).

Methods. This is a prospective observational study of patients ≥18 years old with flank pain and/or costovertebral angle tenderness, ED temperature ≥38°C, and clinically suspected acute pyelonephritis. Historical and examination data were collected during the index visit. Enrolled patients provided a urine specimen and cultures growing *E. coli* $>10^3$ cfu/ml were tested for antimicrobial susceptibility. Some isolates with a ceftriaxone MIC >1 μg/ml were tested for ESBL at site labs, and all will have confirmatory testing at a reference lab. Prevalence of resistance was compared to a similar study conducted in 2000-2004.

Results. We have enrolled 371 subjects since July 2013 from 9 EDs; 62 were excluded because a urine culture was not done or the specimen was contaminated. Of 309 subjects, median age was 37 years and 86.4% were female. Of the 230 (74.4%) that grew a pathogen, 210 (91.3%) grew *E. coli*. Among those with *E. coli* infection, the isolate was fluoroquinolone-resistant in 13.9% and ceftriaxone-resistant in 8.1%. Among those with any or none of antibiotic exposure in the previous 2 months, hospitalization or residence in a long term care facility (LTC) in the previous 90 days, the prevalence of fluoroquinolone resistance was 22.9% and 11.3%, and ceftriaxone resistance was 18.8% and 5.0%, respectively. Among those with ceftriaxone-resistant *E. coli* infection, 47.1% used antimicrobials in the previous 2 months, and 17.6% had been hospitalized or resided in a LTC in the previous 90 days. At site labs, 11/17 ceftriaxone-resistant *E. coli* isolates were tested for ESBL and all were positive. In 2000-2004, among a similar ED population, the prevalence of *E. coli* fluoroquinolone resistance was 4.0% and no ESBL infections were found.

Conclusion. Based on our preliminary data, the prevalence of *E. coli* fluoroquinolone resistance has increased, and ceftriaxone resistance, often due to ESBL production, is now being seen in U.S. ED patients, including among those without recent health care setting exposure.

Disclosures. **D. Talan**, Centers for Disease Control and Prevention: Grant Investigator, Research grant