1451. Change in Clinical Characteristics of Community-Acquired Acute Pyelonephritis in South Korea: Comparison Between 2010–2011 and 2017–2018

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**Session:** 157. Urinary Tract Infections

**Friday, October 4, 2019: 12:15 PM**

**Background.** The aim of this study was to examine the change in clinical characteristics of community-acquired acute pyelonephritis (CA-APN) in South Korea between 2010–2011 and 2017–2018.

**Methods.** We recruited all CA-APN patients with age ≥19 years who visited 4 hospitals in South Korea from September 2017 to August 2018, respectively. The inclusion criteria were: (i) presence of fever (body temperature ≥37.8°C), (ii) pyuria [≥25 white blood cells per high power field (WBC/HPF)], and (iii) clinical symptoms or signs relevant to APN.

**Results.** A total of 349 and 472 patients were recruited during 2017–2018 and 2010–2011, respectively. E. coli was the most common causative pathogen for CA-APN (152; 43.4%). CZOL spectrum vs. other enteric bacilli (20).

**Conclusion.** This study showed a change in clinical characteristics of community-acquired acute pyelonephritis in South Korea from 2010–2011 to 2017–2018.

Disclosures. All authors: No reported disclosures.

1452. Is Carbapenem-Sparing Therapy as Effective as Carbapenems Against Extended-Spectrum β-Lactamase Producing Enterobacteriaceae in UTI? Jonghoon Hyun, MD, PhD; Yongseop Lee, MD, PhD; Hye Seong, MD, PhD; Jung Ho Kim, MD, PhD; Nam Su Ku, MD, PhD; Jinyong Choi, MD, PhD; Joon-Sup Yeom, MD, PhD; Sung Jin Jeong, MD, PhD; Yonsei University College of Medicine, Seoul, Seoul–t’ukpyolsi, Republic of Korea; Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Seoul–t’ukpyolsi, Republic of Korea.

**Session:** 157. Urinary Tract Infections

**Friday, October 4, 2019: 12:15 PM**

**Background.** With the emergence of carbapenem-resistant strains of Enterobacteriaceae, non-carbapenem antibiotics are suggested as the alternative treatment of extended-spectrum β-lactamase (ESBL) producing Enterobacteriaceae infection. In this study, efficacy of non-carbapenem antibiotics on acute pyelonephritis (CA-APN) with ESBL-producing Enterobacteriaceae was compared with that of carbapenems.

**Methods.** The medical records of patients who had diagnosed to have acute pyelonephritis with ESBL-producing Enterobacteriaceae on their urine culture, from January 2011 to December 2018, were reviewed retrospectively. Patients were classified as carbapenem and non-carbapenem group according to the definitive antibiotics they had treated with.

**Results.** Total number of patients was 141, including 112 (79.4%) who had received carbapenem and 29 (20.6%) who received non-carbapenem as definitive therapy against CA-APN with ESBL-producing Enterobacteriaceae.

**Conclusion.** Non-carbapenem therapy against APN with ESBL-producing Enterobacteriaceae has no significant difference in clinical outcome compared with carbapenem therapy.

Disclosures. All authors: No reported disclosures.

1453. Cephalexin and Cefadroxil Are Not Therapeutic Equivalents for Uncomplicated Cystitis (uUTI): Further Analysis of Cefazolin Surrogate Sensitivity Testing Criteria Ronald N. Jones, MD; Hien M Nguyen, MD; United States Committee on Antimicrobial Susceptibility Testing (USCAST), Silverton, Oregon; Northwest Permanente, Clackamas, Oregon

**Session:** 157. Urinary Tract Infections

**Friday, October 4, 2019: 12:15 PM**

**Background.** Cephalexin (CLEX) and cefadroxil are first-generation oral cephalosporins (OCs) with similar antimicrobial spectra, side-effects, and high urine concentrations; and are US-FDA approved for uUTI. Some stewardship programs are replacing CLEX with cefadroxil (4 x daily) for cystitis (2-4 x daily) for dose compliance. The Committee on Antimicrobial Susceptibility Testing (USCAST) and CLSI recommend a cefazolin (CZOL) UUT surrogate breakpoint (≤16 mg/L; ≥21 mm) to predict susceptibility (S) for 7 OCs against indicated Enterobacteriaceae. Direct cefadroxil antimicrobial sensitivity testing (AST) does not exist in US breakpoint interpretive documents, limiting specific results.

**Methods.** We reanalyzed and compared the CZOL surrogate testing for cefadroxil, CLEX and 5 other OCs using AST data previously reported (Schuetz et al., 2013; IHMA). Broth microdilution AST was used against 205 isolates: E. coli (92; 40% with β-lactamase), K. pneumoniae (62), P. mirabilis (31; 10% with β-lactamase), and other enteric bacilli (20).

**Results.** CZOL X cefadroxil cross-S accuracy rate was only 91.6% (uncatchable; ε ≤5%) and the false resistance was 1.0% (acceptable). Cross-S accuracy was ≥97.0% for all tested OC’s except cefadroxil and cefadroxil (80.1%). CZOL spectrum vs. other enteric bacilli (20).

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