Conclusion. Short course IV antibiotics for ≥ 48 hours for young infants with nonbacteremic UTI are safe provided bacterial meningitis has been excluded. Treatment failure and serious complications were rare in young infants with UTI.

Disclosures. All Authors: No reported disclosures

1438. Prevalence and Risk Factors for Extended Spectrum Beta-lactamases Among Hospitalized Patients: Comparison with ESBL in Colombia

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Session: P-81. UTIs

Background. Urinary tract infections (UTI) are the most frequent bacterial infection in hospitalized patients. Extended spectrum beta lactamases (ESBL) producing bacteria are still an increasing problem and becoming more prevalent. Escherichia coli (E. coli) is the most frequent ESBL producing bacteria isolated in UTI. This drug resistant organisms are associated with poorer outcomes for patients. In low income countries, approaching to and treating ESBL E. coli, represent a major challenge for health care centers.

Methods. A retrospective cohort of adult patients with community acquired pneumonia caused by Escherichia coli was identified in a tertiary hospital in Colombia. Susceptibility was performed with Vitek (BioMerieux, France); extended spectrum beta lactamase (ESBL) production was defined phenotypically: Inclusion criteria were adult patients hospitalized with a positive urine culture for E. coli. Demographic and clinical characteristics were searched in electronic records. Risk factors associated with ESBL production were identified by using a multivariate logistic regression analysis.

Results. During 7 years 817 patients with pyelonephritis caused by E. coli were identified (9.7%) of them were caused by ESBL producers. Women were 66% and 408 (74.8% of them) had menopause. Mean age was 64.2 years (standard deviation of 19.1). Of the cohort, 481 (561.1%) had at least some comorbidity and was frequent to women (aOR 2.9, 1.3 -9.9), and the Charlson score (aOR 0.83, 0.73 - 0.96). Previous antibiotic use was not related to ESBL infection.

Conclusion. In this relatively large cohort of patients with pyelonephritis caused by E. coli, ESBL production risk factors were not clearly identified other than sex and menopause. Curiously, Charlson score predicted a lower risk of resistance. Other factors (food consumptions and others) might be driving the resistance in the community in E. coli.

Disclosures. Jorge Cortes, MD, Pfizer (Research Grant or Support)

1439. Epidemiology and 12-Month Antibiotic Use in the Outpatient Setting among Adult Patients with Complicated Urinary Tract Infections: A Retrospective Database Analysis

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Session: P-81. UTIs

Background. Complicated urinary tract infections (cUTI) are one of the most common bacterial infections and represent substantial burden to the health care system, with an increase in antibiotic resistance in the outpatient setting.

Methods. We conducted a retrospective cohort study of adult patients in the IBM MarketScan® Commercial or Medicare Supplemental Databases with at least 1 IP or non-diagnostic OP claim with a diagnosis for cUTI between January 1, 2017 and June 30, 2019. Patients meeting the following criteria were included for analysis: (1) ≥18 years of age on the index date, (2) ≥6 months of continuous enrollment (CE) with medical and pharmacy benefits prior to the index date, (3) ≥12 months of CE following the index date or evidence of death, and (4) no evidence of a prior cUTI during the 6-month baseline period. Demographics and clinical characteristics were quantified. Patients were classified as IP if they were hospitalized during 30-day post index date; remaining patients were classified as OP. Antibiotics received in the OP setting in the 12 months post index date were examined.

Results. 95,423 patients met study criteria. Most (86.4%) patients were commercially insured, mean (SD) age was 53.6 (18.1) and 70.4% were female. Mean baseline Charlson Comorbidity Index was 0.67. During the 30-day post index date, 22.2% were treated as IP and 77.8% were strictly treated as OP. In the 12-month OP follow-up period among index IP, 78.2% required ≥ 2 antibiotics, 38.2% required ≥ 4 antibiotics, and 41.6% received an IV antibiotic. In the 12-month OP follow-up period among index OP, 81.8% required ≥ 2 antibiotics, 38.2% required ≥ 4 antibiotics, and 46.8% received an IV antibiotic. For both IP and OP, fluoroquinolones were the most common oral antibiotic class (57.7%), followed by cephalexin (39.2%), piperacillin (30.3%), trimethoprim-sulfamethoxazole (29.8%), and nitrofurantoin (25.2%). Cephalosporins were the most common IV antibiotic class (38.5%).

Conclusion. Regardless of index treatment setting, approximately 40% of all cUTI patients required ≥ 4 antibiotic therapy and almost half with receive an IV antibiotic in the outpatient setting in the 12-months post index date.

Disclosures. Thomas Lodise, Jr., PharmD, PhD, Astra-Zeneca (Consultant); Bayer (Consultant); DoneMe (Consultant, Advisor); jerring (Consultant); InSerendiTech (Consultant, GSK (Consultant)Melitra (Consultant)); Kyle Fahrbach, PhD (Consultant, Independent Contractor); nabrina (Consultant); paratek (Consultant, Advisor or Review Panel member, Speaker’s Bureau); shionogi (Consultant, Advisor or Review Panel member, Speaker’s Bureau); Spero (Consultant); tetraphase (Consultant); Thomas Lodise, Jr., PharmD (Consultant); Melitra Therapeutics (Individual(s) Involved: Self); Consultant; Merck (Individual(s) Involved: Self); Consultant, Scientific Research Study Investigator; Paratek (Individual(s) Involved: Self); Consultant; shionogi (Individual(s) Involved: Self); Consultant, Speakers bureau; Spero (Individual(s) Involved: Self); Consultant; Tetraphase Pharmaceuticals Inc. (Individual(s) Involved: Self); Consultant Janna Manjelievskaia, PhD, MPH, IBM Watson Health (Employee); Spero Therapeutics (Consultant) Matthew Brouillette, MPH, Spero Therapeutics, Inc. (Other Financial or Material Support, I am an employee of IBM Watson Health, who received funds from Spero Therapeutics, Inc. to conduct this analysis.) Kate Sulham, MPH, Spero Therapeutics (Consultant)

1440. Meta-regression Analysis of Worldwide Herpes Zoster Incidence Rates and Temporal Trends. We systematically reviewed and synthetized the worldwide HZ incidence rates and temporal trends. We systematically reviewed and synthetized the worldwide HZ incidence rates and temporal trends. We systematically reviewed and synthetized the worldwide HZ incidence rates and temporal trends. We systematically reviewed and synthetized the worldwide HZ incidence rates and temporal trends. We systematically reviewed and synthetized the worldwide HZ incidence rates and temporal trends.

Session: P-82. Virology: Studies of the Epidemiology of Viral Infections

Background. Many studies have been conducted worldwide to estimate Herpes Zoster (HZ) incidence rates and temporal trends. We systematically reviewed and synthesized the general population using meta-analysis models.

Methods. A random-effects meta-analysis was conducted to estimate HZ incidence rates from a published worldwide systematic literature review (SLR) including only individuals aged 50 years and older. Meta-regression was used to explore if variability in incidence rates could be explained by a combination of study-specific characteristics in the base model: age, gender, continent, year of data collection, gender, age, cubic and quadratic terms for age, as well as an age x gender interaction term. The age x gender interaction suggests that the difference in incidence between males and females is greater in younger ages (e.g. 50-59), whereas in older age groups (e.g. 80+) incidence rates are similar between males and females. None of the additional covariates contributed significantly to the model. It was estimated that 1.5 - 2.0 million worldwide in individuals aged 50 years and older, which in the absence of vaccination, is projected to increase to 19.8 million by 2030.

Conclusion. The model allows for trends in incidence data to be explored based on influential covariates. Incidence rates were shown to vary by age, gender, continent, and over time.

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Disclosures. Barbara P. Yawn, MD, Msc, ORCID: 0000-0001-7278-5810; Andrea Callegaro, PhD; Kyle Fahrbach, PhD; Binod Neupane, PhD; Hilde Vruling, MSc; Tanveer Ourschot, Msc; Desmond Pathickal, Msc; Kyle Fahrbach, PhD; Edwina (Employee)The GSK group of companies (Other Financial or Material Support, -KF is employed by Edwina who received financial support by the GSK group of companies during the conduct of the study) Kyle Fahrbach, PhD; Edwina (Employee)The GSK group of companies (Other Financial or Material Support, -KF is employed by Edwina who received financial support by the GSK group of companies during the conduct of the study)

1441. Significant Decrease in the Incidence Rate of Common Outpatient Upper Respiratory Tract Infection Diagnoses per Clinic Visit in the First Respiration Season of October 2020 to March 2021 During the Covid-19 Pandemic. A Report From an Outpatient Antimicrobial Stewardship Program at a community hospital in Brooklyn

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