Disclosures: Rita Banerjee, MD, PhD; Accelerate Diagnostics: Grant/Research Support; BioFire: Research Grant; Biomérieux: Research Grant; Roche: Research Grant.

1977. Comparing Acute Kidney Injury Risk among Antibiotic Classes: A Study of the FDA Adverse Event Reporting System (FAERS)

Taylor M. Patek1; Chengwen Teng, PharmD, MS1; Kaitlin E. Kennedy1; Chenchen Jin, PhD, FCP, BCPS1, 2; Jie Zheng, PharmD, PhD, FCP, BCPS1; The University of Texas at Austin, South Texas Veterans Health Care System, UT Health San Antonio, UT Austin College of Pharmacy, San Antonio, Texas

Session: 232. Antibiotic Stewardship: Adverse Effects
Saturday, October 5, 2019: 12:15 PM

Background. A recent article published in 2018 studied the FDA Adverse Event Reporting System (FAERS) and listed the most commonly used medications associated with acute kidney injury (AKI) based on number of AKI reports. In regards to antibiotics, the study reported its use in combination with trimethoprim-sulfamethoxazole to have a higher risk of AKI

Methods. FAERS reports from January 1, 2015 to December 31, 2017 were included in the study. The Medical Dictionary for Regulatory Activities (MedDRA) was used to identify AKI cases. Reporting Odds Ratios (RORs) and corresponding 95% confidence intervals (CI) for the association between antibiotics and AKI were calculated. An association was considered statistically significant when the upper limit of the 95% CI was greater than 1.0.

Results. A total of 2,042,801 reports (including 20,138 acute kidney injury reports) were considered, after inclusion criteria were applied. Colistin had the greatest proportion of AKI reports, representing 25% of all colistin reports. Acute kidney injury (AKI) reports (95% CI) for antibiotics were as follows: (descending order): colistin 33.10 (21.24–51.56), amoxicillin 17.14 (14.49–20.90), vancomycin 15.28 (13.82–16.90), trimethoprim-sulfamethoxazole 13.72 (11.94–15.76), penicillin combinations 7.95 (7.09–8.91), clindamycin 6.64 (5.18–8.04), cephalosporins 6.07 (5.23–7.05), doripenem 6.07 (4.61–7.99), macrolides 3.60 (3.04–4.26), linezolid 3.53 (2.55–4.77) carbapenems 3.31 (2.58–4.25), metronidazole 2.55 (1.94–3.36), tetracyclines 1.73 (1.26–2.36) and fluoroquinolones 1.71 (1.49–1.97).

Conclusion. This study found 17 classes of antibiotics and combinations that were significantly associated with AKI compared with four antibiotics that were mentioned in a recently published article looking at drug-associated AKI. While this study confirmed previous literature of certain antibiotics associated with increased risk of AKI, it also compared antibiotics within classes and provided additional insight regarding which antibiotics had the highest associated risk of an AKI.

Disclosures. All authors: No reported disclosures.

1978. Variability in Antifungal Stewardship Strategies Among Society for Healthcare Epidemiology of America (SHEA) Research Network Facilities

Margaret A. Fitzpatrick, MD, MS1; Fritzie S. Albarillo, MD2; Aaron Ochoa, MD1; Katie J. Suda, PharmD, MS1; Charlene E. Trunsick, PhD, MPH1; Margaret A. Fitzpatrick, MD, MS, FCP1; 1Loyola University Chicago Stritch School of Medicine, Chicago, Illinois; 2Loyola University Medical Center, Maywood, Illinois; 3Center of Innovation for Complex Chronic Healthcare (CINCHC), Hines VA Hospital and University of Illinois at Chicago College of Pharmacy, Hines, Illinois; 4Northwestern University and VA, Hines, Illinois

Session: 233. Antibiotic Stewardship: Antifungals
Saturday, October 5, 2019: 12:15 PM

Background. Variability in antifungal stewardship strategies among SHEA Research Network facilities was observed in 2016. Variability in antifungal stewardship strategies may influence the incidence of fungemia.

Methods. The present study is an interrupted time-series (ITS) before-after study, based on an ecological time-trend analysis. Since 2014, an antifungal stewardship program (ASP) has been implemented at an Italian tertiary-care hospital. The first objective of the program was to reduce carbapenem consumption, through an active and computerized surveillance of all carbapenem prescriptions, each of which was checked and validated by ID specialists always after audit of the cases with treating physicians. We retrospectively evaluated the changing in the consumption of antimicrobials, carbapenems, and in the incidence of candidemia, during two study periods: before (2007–2013) and after (2014-2018) the implementation of the ASP.

Results. The implementation of ASP was followed by a significant decrease in antibiotic consumption, which was consistent through the following 5 years. At the end of the study, total antibiotic consumption has decreased by 38.476 DDDs per 100 patient-days (PDs) per quarter (95% CI: −21.784 to −55.168; P < 0.001) and carbapenems decreased by 4,452 DDD per 100 PDs per quarter (95% CI: −3.658 to −5.246; P = 0.001). After 5 years of ASP, incidence of candidemia decreased by 2,034 episodes per 1,000 PDs per quarter (95% CI: −0.758 to −3.338; P = 0.003), decreasing, at the end of 2018, by 53% compared with the expected value if the program had not been implemented.

Conclusion. At our Institution, the ASP had a positive impact on the consumption of carbapenems, and antifungals. The incidence of candidemia was also favorably affected by the program, reversing the trend after 2014. The ASP, even if not directly targeted to fungal infections, indirectly caused a reduction in the incidence of candidemia, probably reducing the number of patients colonized by Candida spp.

Disclosures. All authors: No reported disclosures.