1979. Five-Year Impact of an Antimicrobial Stewardship Program on Nosocomial Candidemia: An Interrupted Time-Series Analysis Study
Andrea Bedini, MD;3 Marianna Meschiari, PhD;2 Erica Franceschini, MD;1 Cristina Mussini, Prof;1 University Hospital of Modena, Modena, Emilia-Romagna, Italy;3 Infectious Disease Clinic, Azienda Ospedaliero-Universitaria di Modena; University of Modena and Reggio Emilia, Modena, Emilia-Romagna, Italy;4 University of Modena, Modena, Emilia-Romagna, Italy
Session: 233. Antibiotic Stewardship: Antifungals
Saturday, October 5, 2019: 12:15 PM
Background. Antimicrobial stewardship programs allow a reduction in antibiotic prescription and, consequently, in the incidence of multidrug-resistance infections. However, the impact on nosocomial candidemia is still unclear.
Methods. The present study is an interrupted time-series (ITS) before-after study, based on an ecological time-trend analysis. Since 2014, an antimicrobial 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 carbapenem 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: −0.738 to −3.336; 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 antimicrobials. 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.

1980. Variability in Antifungal Stewardship Strategies Among Society for Healthcare Epidemiology of America (SHEA) Research Network Facilities
Margaret A. Fitzpatrick, MD, MS;1 Frances P. Albarillo, MD;2 Aaron Ochoa, MD;3 Katie J. Suda, PharmD, MS;4 Charleseka T. Evans, PhD, MPH;4 Loyola University Chicago Stritch School of Medicine, Chicago, Illinois;1 Loyola University Medical Center, Maywood, Illinois; Center of Innovation for Complex Chronic Healthcare (CINCCH), Hines VA Hospital and University of Illinois at Chicago College of Pharmacy, Hines, Illinois;2 Northwestern University and VA, Hines, Illinois
Session: 233. Antibiotic Stewardship: Antifungals
Saturday, October 5, 2019: 12:15 PM
Background. The incidence of invasive fungal infections (IFI) and antifungal utilization is increasing in many healthcare settings. Little is known regarding antifungal stewardship strategies within broader antimicrobial stewardship programs (ASPs). This survey aimed to identify the use of antifungal stewardship at a diverse range of hospitals.
Methods. A cross-sectional electronic survey of the SHEA Research Network (SRN) was completed August–September 2018 by a physician or pharmacist ASP leader. The SRN is a consortium of >100 hospitals participating in multicenter health-care epidemiology research projects. Survey questions pertained to various aspects of antifungal stewardship, including audit and feedback, laboratory testing, and surveillance. Chi-square tested associations between ASP and hospital characteristics and use of antifungal stewardship strategies.