**Background.** The clinical benefits of multiplex polymerase chain reaction panels are not well defined. We evaluated outcomes among infants before and after implementation of the BioFire® FilmArray® Respiratory Panel 2 (RP2) and Meningitis Encephalitis Panel (MEP).

**Methods.** This single-center study compared outcomes among infants ≤ 90 days presenting to the Emergency Department with fever (T ≥ 38.0°C) or hypothermia (T < 35.8°C) during 3 time periods. P1 (January 1, 2011–December 31, 2014) had batch testing using a Genmark Dx® respiratory viral panel (RVP) and no standardized clinical practice guideline (CPG); P2 (January 1, 2015–April 30, 2018) had the RVP and a CPG; and P3 (May 1, 2018–March 31, 2019) had on-demand RP2 and MEP testing and a CPG. Clinical data were collected from medical records. Statistical analyses were performed using Kruskal–Wallis and Pearson tests.

**Results.** There were 5195 total patients: 2514 in P1, 2082 in P2, 599 in P3. Groups did not differ in pathogens or antimicrobials used. Testing was faster and performed more commonly in P3 than P1 or P2 (P1, 10%; P2, 6.9%; P3, 71%; Table 1). From P1 to P3 there were significant decreases in length of stay (LOS), % receiving antimicrobials, antibiotic durations, ancillary test use, lumbar punctures (LPs), and chest X-rays (Table 1). In P3 compared with P2, infants more commonly received no antimicrobials (43.1% vs. 32.4%, P < 0.001; Figure 1). There were more significant decreases in length of stay (LOS), % receiving antimicrobials, antibiotic durations, ancillary test use, lumbar punctures (LPs), and chest X-rays (Table 1). Among P3 infants, those with positive RP2 and/or MEP results were less likely to receive antimicrobials, be hospitalized or readmitted, had fewer ancillary tests and LPs, and shorter LOS and antibiotic durations than those with negative tests (Table 2).

**Conclusion.** In this large pre-post intervention study among infants ≤ 90 days with fever or hypothermia, a clinical guideline plus rapid testing with RP2 and MEP was associated with less antimicrobial use and ancillary testing than a clinical guideline alone. Infants with positive RP2 and/or MEP results had fewer admissions, shorter LOS, and less antimicrobial and ancillary test use than those with negative tests. Rapid pathogen testing has benefit for infants.

**Table 1: Outcomes among infants ≤ 90 days (n=1916)**

| Outcome | Positive test | Negative test | p-value |
|---------|---------------|---------------|---------|
| Readmission within 30 days (%) | 22.9 | 18.5 | 0.054* |
| Death within 30 days (%) | 2.2 | 1.1 | 0.054* |
| Admitted (%) | 160 (80.2) | 182 (91.2) | <0.001* |
| Length of stay (LOS) in days | 13.5 (1-24.8) | 13.5 (1-31.8) | <0.001* |

**Table 2: Outcomes among P3 patients receiving RP2 or MEP (n=424)**

| Outcome | Positive test | Negative test | p-value |
|---------|---------------|---------------|---------|
| Readmission within 30 days (%) | 22.9 | 18.5 | 0.054* |
| Death within 30 days (%) | 2.2 | 1.1 | 0.054* |
| Admitted (%) | 160 (80.2) | 182 (91.2) | <0.001* |
| Length of stay (LOS) in days | 13.5 (1-24.8) | 13.5 (1-31.8) | <0.001* |

**Disclosures.** All authors: No reported disclosures.
977. Comparing Acute Kidney Injury Risk among Antibiotic Classes: A Study of the FDA Adverse Event Reporting System (FAERS)

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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 common medications associated with acute kidney injury (AKI) based on number of AKI reports. In regards to antibiotics, the study ranked vancomycin, meropenem, rifampin, amoxicillin/clavulanate, and trimethoprim-sulfamethoxazole as having a significant association with AKI. The objective of this study was to evaluate those and additional antibiotic classes using FAERS, and to compare their risk associated with this adverse drug event.

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 (95% CI) for the association between antibiotics and AKI were calculated. An association was considered statistically significant when the lower 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 RORs (95% CI) for antibiotics were (in descending order): colistin 33.10 (21.24–51.56), aminoglycosides 17.41 (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 6.46 (5.18–8.04), cephalosporins 6.07 (5.23–7.05), daptomycin 6.07 (5.18–8.04), rim-sulfamethoxazole 13.72 (11.94–15.76), penicillin combinations 7.95 (7.09–8.91), and daptomycin 6.07 (5.18–8.04).

Conclusion. In this study, 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 insights 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, MD3; Katie J. Suda, PharmD, MS1; Charlesnika T. Evans, PhD, MPH4; Margaret A. Fitzpatrick, MD, MS1

Session: 233. Antibiotic Stewardship: Antifungals
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Background. Antifungal 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 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: −0.738 to −3.330; 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.

980. 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, MD3; Katie J. Suda, PharmD, MS1; Charlesnika T. Evans, PhD, MPH4; Margaret A. Fitzpatrick, MD, MS1

Session: 233. Antibiotic Stewardship: Antifungals
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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.