**Conclusion.** DDA-Vori is associated with a better outcome (response and survival) when compared with EMP-non-Vori and equivalent outcome to EMP-Vori. The superior to equivalent outcome associated with the DDA approach could also reduce unnecessary costs and adverse events associated with widespread use of empiric therapy.

**Disclosures.** 1. Raad, Merck: Grant Investigator, Research grant. Allergen: Grant Investigator, Research grant. Infective Technologies, LLC: Co-Inventor of the Nitroglycerin-Citrate Ethanol catheter lock solution technology which is owned by the University of Texas MD Anderson Cancer Center (UTMDACC) and has been licensed by Novel Anti-Infective Technologies, LLC in which Dr. Raad is a Shareholder, Licensing agreement or royalty

168. In Vitro Interactions of Echinocandins with Triazoles Against Multidrug-Resistant Candida auris
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**Session:** 44. Clinical Mycology
**Thursday, October 5, 2017: 12:30 PM**

**Background.** Blood stream infections due to Candida auris are related to a high mortality rate and treatment failure attributed to resistance to fluconazole, voriconazole, amphotericin B, and caspofungin. Thus, the precise identification of agents and in vitro antifungal susceptibility testing is highly recommended. Novel therapeutic strategies, such as combination therapy, are essential for increasing the efficacy and reducing the toxicity of antifungal agents. Therefore, we investigated the in vitro combination of micafungin plus voriconazole against multidrug-resistant C. auris isolated from cases of candidemia.

**Methods.** The in vitro interactions between echinocandins and azoles were determined against ten multidrug-resistant Candida auris strains by using a microdilution checkerboard technique.

**Results.** Results revealed that MICs range for voriconazole and micafungin were 0.5-8 and 0.25-8 mg/L, respectively. The checkerboard analysis revealed that the combination of micafungin with voriconazole exhibited synergistic activity against all 10 multidrug-resistant C. auris isolates (FICI range: 0.15-0.5). Overall, no antagonistic effects were observed in this experiments.

**Conclusion.** In vitro studies have previously suggested that among azoles isavuconazole and posaconazole are more active drugs against C. auris. In addition, the majority of isolates reported are resistant to fluconazole. Remarkably, unsuccessful treatment of C. auris infections with fluconazole, voriconazole, amphotericin B, caspofungin, and anidulafungin has been already on record. Here in we demonstrate that interaction between micafungin with voriconazole exhibited synergistic activity against multidrug-resistant C. auris isolates. It seems that lower concentrations of drugs cause fewer side-effects and improve the treatment outcomes. However, in vivo studies with suitable animal models of C. auris infection is highly recommended.

**Disclosures.** All authors: No reported disclosures.

169. Disseminated Coccidioidomycosis Among Children in Central California: A Retrospective Review
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**Session:** 44. Clinical Mycology
**Thursday, October 5, 2017: 12:30 PM**

**Background.** The burden of coccidioidomycosis in central California is significant among children. Yet, the literature on such infection is limited; particularly on disseminated coccidioidomycosis (DC) in children.

**Objectives.** Review the natural history, treatment and outcomes of DC in a tertiary children’s hospital.

**Methods.** Retrospective review of patients ≤21 years old with DC seen at our facility during 1/1/07-12/31/16.

**Results.** Eighty cases were identified. Median age was 8.5 years (IQR 4.3–14.6); majority was hispanic (66%) and without comorbid conditions (85%). Pulmonary disease with other organ involvement occurred in 69%; 19% had meningitis. Overall, 82% were hospitalized and/or stable disease (RS), whereas 14% experienced relapse and/or progressive disease (RP). Meningitis more commonly seen in older age group (14.3 vs. 6.9 years, P = 0.04) and had low eosinophil’s (0.8 vs. 2.1%, P < 0.01). More organ involvement (64% vs. 35%, P = 0.03) and RP disease (22% vs. 5%, P = 0.04) commonly seen in children 10 years or older. Non-Hispanics also found to be older than Hispanics (12.2 vs. 7.4 years, P < 0.01); received multiple drug therapy (48% vs. 18%, P = 0.02). Although not significant, Non-Hispanics were more likely to have meningitis (30% vs. 13%, P = 0.07), coccidioidal complement fixation (CF) titers ≥ 32 (92% vs. 73%, P = 0.07), and RP disease (24% vs. 7%, P = 0.06) than Hispanics. No significant association was found between gender and age, CF titers, and/or outcomes. Higher CF titers were seen with >1 organ involvement (1:256 vs. 1:64, P < 0.01) and more antifungal therapy (1:256 vs. 1:128, P < 0.01). Coccidioides EIA antibody was positive in 50% of cases and 48% with negative/indeterminate results were positive by Immunodiffusion. On multivariate analysis, age remained independently associated with RP (OR = 1.2, 95% CI 1.0–1.5, P = 0.02); age (OR = 1.1, 95% CI 1.0–1.3, P = 0.01) and more antifungal therapy (OR = 3.7, 95% CI 1.4–9.5, P < 0.05) with Non-Hispanics.

**Conclusion.** To our knowledge this is the largest series for pediatric DC. We identify older age group, non-Hispanics and higher CF titers as potential risk factors for DC, which require early intervention. Prospective studies are needed to identify predictors for adverse outcomes in pediatric DC.

**Disclosures.** All authors: No reported disclosures.

170. Real-World Use – Isavuconazole at a Large Academic Medical Center Habiba Hassouna, MD; Kyle Brizendine, MD; and Vasilius Athans, PharmD; Infectious Diseases, Cleveland Clinic Foundation, Cleveland, Ohio; Infectious Disease, Cleveland Clinic, Cleveland, Ohio; Pharmacy, Cleveland Clinic, Cleveland, Ohio

**Session:** 44. Clinical Mycology
**Thursday, October 5, 2017: 12:30 PM**

**Background.** Invasive fungal infections cause significant mortality and morbidity. Isavuconazole (ISV) is a new triazole approved for treatment of mucormycosis and aspergillosis. Data on its effectiveness outside clinical trials and in patients receiving prior triazole prophylaxis are lacking.

**Methods.** We conducted a retrospective cohort study on all patients at the Cleveland Clinic 6/1/2015–1/31/2017 who received ISV to determine 6-week response in a population with varying underlying diseases, and previous triazole prophylaxis or treatment. Descriptive statistics and univariate associations were calculated.

**Results.** Thirty-three patients were identified including organ transplant recipients (5), hematopoietic cell transplant recipients (7), and acute leukemia (18). Twenty-five had lung involvement while 13 had rhino-orbital-cerebral disease. In 13 cases, a fungal pathogen was identified: Mucorales (7) and Aspergillus (6). Fifteen received triazole prophylaxis prior to initiating ISV. Twenty-four received antifungal therapy immediately prior to switching to ISV: amphotericin B (1), fluconazole (1), voriconazole (16), posaconazole (4), and micafungin (2). Switching was often to broaden empiric coverage (18). Six-week response according to subgroups is presented in Figure 1 patients had therapeutic drug monitoring (TDM). Median level (IQR) was 6.75 (5.6–7.0) g/ml. Patients given ISV following triazole prophylaxis, those undergoing TDM, and those with an identified fungal pathogen had increased odds of complete or partial response, but this did not reach statistical significance (Figure 2). At 6 weeks mortality was 36% complete or partial response observed in 45%. No ISV related adverse effects reported.

**Conclusion.** To our knowledge, this is the first study to assess a real-world setting and a heterogeneous population with previous triazole prophylaxis or treatment. Our 6-week response (45%) compares favorably to published trials (35% Aspergillus; 11% Mucorales). Mortality in our study (36%) is similarly comparable to trial results (19% Aspergillus; 35% Mucorales). No major safety signal was observed. Larger cohorts are needed to describe additional real-world ISV use and determine associations with patient outcomes.