**Background.** Macromycosis is a life-threatening infection that predominantly occurs in immunocompromised hosts. The antifungal APX001A (maneoxep) inhibits its Gwt1, an enzyme required for the conserved glycosylphosphatidylinositol (GPI) post-translational modification in eukaryotes. We previously reported the activity of APX001A (fosmaneoxep, the prodrug of APX001A) against Rhizopus delemar (minimum effective concentration [MEC] = 0.125 µg/mL). Here we assessed the activity against *R. oryzae*, which has an elevated MEC value.

**Methods.** *R. oryzae* 99–892 MIC and MEC values were 0.125 µg/mL and 4.0 µg/mL for sur伐conazole (ISA) and APX001A, respectively. ICR mice were immunosuppressed with cyclophosphamide (200 mg/kg) and cortisone acetate (500 mg/kg) on Days -2, +3, and +8 relative to intratracheal infection with 2.5 × 10⁶ cells of *R. oryzae*. 99–892. For survival studies, treatment with 104 mg/kg APX001 was compared with ISA (110 mg/kg TID). Oral treatment started on Day +1 through Day +7, relative to infection for survival studies, and through Day +4 for tissue fungal burden studies (assessed by conidial equivalent [CE] using qPCR). Placebo mice received vehicle control. To extend the half-life of APX001, mice were administered 50 mg/kg of the cytochrome P450 inhibitor 1-aminobenzotriazole (ABT) 2 h prior to APX001 administration.

**Results.** APX001 and ISA equally prolonged median survival time of mice (n = 20) vs. placebo (12 and 14 days for APX001 and ISA, respectively, vs. 8 days for placebo). Furthermore, APX001 and ISA treatment resulted both in 30% 21-day survival as well as survival beyond 21 days. APX001 caused an 8-fold increase in MEC, which was statistically significant (P = 0.005 by Wilcoxon rank-sum test).

**Conclusion.** Despite a higher MEC value, APX001 showed significant efficacy against *R. oryzae* that was as protective as ISA in immunosuppressed mice. Given the previously reported activity of APX001 against a strain of *R. delemar* with a lower MEC value, APX001 has now been shown to be efficacious against both species of Rhizopus, which together are responsible for ~60–70% of isolates causing lethal mucormycosis. Thus, the observed improved activity of APX001 against macromycosis is warranted.

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

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**727. Potency of the β-Lactamase Inhibitor QPX7728 Is Minimally Affected by KPC Mutations that Reduce Potency of Ceftazidime–Avibactam**

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**Session:** 68. Novel Antimicrobials and Approaches Against Resistant Bugs

**Thursday, October 3, 2019: 12:15 PM**

**Background.** In the United States, carbapenem-resistant Enterobacteriaceae (C/A-R) are commonly represented by KPC-producing strains and ceftazidime–avibactam (C/A) is increasingly used to treat infections caused by KPC-producers. C/A resistance (C/A-R) mutations with mutations in blaKPC, can be isolated in vitro and were reported in patients treated with C/A. QPX7728 (QPX) is a new ultra-broad-spectrum β-lactamase inhibitor based on a cyclic boronic acid pharmacophore with a potent activity against serine as well as metallo-β-lactamases (M/BLA) with metallo-inhibitor (M/I). M/I, can be used in combination with meropenem (MER), MQ, or ceftipime (FEP), F/I, has potent activity against all types of CRE (KPC, MBLs and TGC) and antimicrobial (TGC) and agar dilution for other antibiotics according to CLSI methodology.

**Methods.** Five C/A-R clinical isolates with mutations in *K. pneumoniae* (n = 10). For these isolates, the MICs for these isolates were 0.125–0.25 µg/mL. Of 518 isolates of *K. pneumoniae*, 20 possessed KPC. The ERV MIC₉₀ and MIC₅₀ for these isolates were 1 and 1 µg/mL, respectively. Of 172 isolates of Enterobacter spp., 3 possessed KPC. ERV MIC₉₀ for these isolates were 2–4 µg/mL. Of 45 isolates of *A. baumannii*, 11 isolates possessed a carbapenemase (OXA23 in 8, OXA23 in 2, and KPC in 1). The ERV MIC₉₀ and MIC₅₀ for these isolates were 1 and 2 µg/mL, respectively. Overall, ERV MIC₉₀ were two-fold lower than TGC MICs for A. baumannii.

**Conclusion.** ERV possesses significant in vitro activity against contemporary clinical isolates of *Enterobacteriaceae* and *A. baumannii* from NYC, including many carbapenemase producing strains.

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

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**729. Comparing Length of Stay and Clinical Outcomes for Hospitalized Patients at Bridgeport Hospital who Received Baloxavir Marboxil (BM) or Oseltamivir Phosphate (OP) During the 2018–2019 Influenza Season**

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**Session:** 68. Novel Antimicrobials and Approaches Against Resistant Bugs

**Thursday, October 3, 2019: 12:15 PM**

**Background.** BM has been approved for the management of acute uncomplicated influenza in otherwise healthy individuals between age 12 and 64, and found to have a greater reduction in viremia. The original trial excluded hospitalized patients and those with co-morbidities.

**Methods.** This is a single-center, retrospective analysis of hospitalized patients diagnosed with influenza between October 1, 2018 and March 31, 2019. This study included all patients diagnosed before the addition of BM to the AMR formulary; those who were not treated with antivirals, treated before admission, or treated with both antivirals; those younger than 12 years old; and those who remain hospitalized. The relationship between length of stay and antiviral usage was ascertained using t-test and multivariate linear regression. Due to heterogeneity in reasons for hospitalization, analysis was stratified by the main reasons for hospitalization. T-test and Wilcoxon’s rank-sum test were used for continuous variables, and Pearson’s chi-squared test was used for categorical variables. The significance level was 0.05.

**Results.** The study population (n = 145) has a mean age of 66.5 years; of whom, 43% are male. In terms of patient characteristics, those treated with BM (n = 105) vs. OP (n = 40) were less frequently admitted to ICU and of differing ethnic composition. The length of stay was similar in those treated with BM vs. OP in both univariate and multivariate analysis (12.6 (7.8) vs. 12.1 (7.8) days, respectively).

**Conclusion.** In hospitalized patients with co-morbidities diagnosed with influenza, there was no difference in length of stay in those who received BM vs. OP. This highlights the need to clarify the role of BM in this population, particularly given its comparable symptom reduction, greater cost, and the emergence of PA388T viral mutant.

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