with either R. delmar or M. circinelloides vs. placebo mice (0% survival, P < 0.02). Importantly, VX01 acted synergistically in protecting mice when combined with liposomal amphotericin B or posaconazole in a severe model of mucormycosis with treatment starting 48 h post infection (~70% survival for combination vs. 0-20% survival for monotherapy and reduced lung fungal burden by 1.5 log, P < 0.001). GLP-tissue cross-reactivity studies of VX01 showed favorable safety profiles.

**Conclusion.** VX01 shows enhanced binding to CottH3 protein and maintained the protective features of C2 MAb against murine mucormycosis. Clinical testing of combination therapy of VX01 + antifungals is warranted. VX01 is currently in manufacturing.

**Disclosures.** Yiyou Gu, PhD, Vitalex Biosciences (Shareholder) Ashraf S. Ibrahim, PhD, Vitalex Biosciences (Shareholder)

120. An open-label comparative trial of SUBA-itraconazole (SUBA) versus conventional itraconazole (c-itra) for treatment of proven and probable endemic mycoses (MSG-15): a pharmacokinetic (PK) and adverse event (AE) analysis

Peter G. Pappas, MD;1 Andrej Spec, MD, MSCM;2 Marisa Miceli, MD;1 Gerald McGwin, M.S., Ph.D.;1 Rachel McMullen, MS;1 George R. R. Thompson III, MD;1,2 University of Alabama at Birmingham, Birmingham, Alabama; 3Division of Infectious Diseases Washington University in St. Louis, ST LOUIS, MO;3 University of Michigan, Ann Arbor, Michigan; 4UC-Davis, Sacramento, CA

**Session:** O-25. New Findings in Medical Mycology

**Background.** C-itra is the drug of choice for treatment of most non-CNS, non-life-threatening forms of endemic mycoses (EM), including histoplasmosis, blastomycosis, coccidioidomycosis, sporotrichosis and talaromycosis. SUBA represents a new formulation of itraconazole that utilizes nanotechnology to improve bioavailability when administered orally. SUBA is formulated as nanoparticles for absorption in the small bowel while not relying on gastric acidity for optimal absorption. MSG-15 is an open-label, comparative clinical trial comparing SUBA to c-itra for the treatment of EM. Herein we report the final PK and AE profiles of these two compounds.

**Methods.** Subjects with proven and probable EM were eligible this open-label comparative study. The protocol allowed up to 14 d of prior therapy with any antifungals and up to 6 months of combination therapy with either SUBA or c-itra. Subjects were randomized to receive either SUBA 130 mg po bid or c-itra 200 mg po bid for up to 6 months. Follow up occurred at 120-180 days, among patients with mucormycosis recorded within 2 weeks of COVID-19 infection. Mean survival until recorded death on or after mucormycosis diagnosis.

**Results.** 89 subjects with EM entered the trial, including 43 on SUBA and 46 on c-itra. We measured PK serum levels of itra and hydroxy-itra at days 7, 14, 28, 42, 84 and 180 d post-enrollment. PK samples were obtained at 7, 14, and 42 d. Clinical assessment, including symptom assessment, AEs, overall drug tolerance, and quality of life were assessed at each visit. We used descriptive statistics for this analysis.

**Conclusion.** Compared to c-itra, SUBA demonstrates almost identical serum levels despite being dosed at roughly 60% standard dosing for c-itra (130 mg po bid vs 200 mg po bid). SUBA is slightly better tolerated than c-itra, although the specific AEs are similar.

**Disclosures.** Peter G. Pappas, MD, Astellas (Research Grant or Support); F2G (Consultant); Matinas (Consultant, Research/Study Investigator); Mylan Pharma (Research Grant or Support); Scynexis (Consultation, Research Grant or Support); Andrej Spec, MD, MSCM; Mayne Pharma (Consultation, Research Support); Marisa Miceli, MD, SCYNEXIS, Inc. (Advisor or Review Panel member); George R. R. Thompson III, MD, Amplx (Consultant, Grant/Research Support); Appili (Consultant); Astellas (Consultant, Grant/Research Support); Avir (Grant/Research Support); Cidara (Consultant, Grant/Research Support); F2G (Consultant, Grant/ Research Support); Merck (Scientific Research Study Investigator); Pfizer (Advisor or Review Panel member)

121. Mucormycosis and COVID-19 in the United States: a Real-World Evidence Analysis of Risk Factors and Survival Among Patients with Mucormycosis, with and without COVID-19 Preceding the Infection

Kaylen Brzozowski, MPH;1 TriNetX, LLC, Cambridge, Massachusetts

**Session:** O-25. New Findings in Medical Mycology

**Background.** Mucormycosis has been associated with COVID-19 infections, notably in India, and known risk factors for mucormycosis such as diabetes mellitus have been studied in this context. This analysis aims to characterize patients in the US with mucormycosis, with and without COVID-19, by risk factor and mortality.

**Methods.** Data from the TriNetX Research Network representing over 66M de-identified patient-lives in the US was used to examine characteristics and outcomes among mucormycosis patients with and without preceding COVID-19 infection. Patients must have had a mucormycosis diagnosis recorded from 1/1/2020 to 6/8/2020. Patients were then identified as having either a COVID-19 diagnosis or positive SARS-CoV-2 RNA laboratory result (M+COV) or no COVID-19 diagnosis or positive RNA result (MnCOV) any time prior to one day after the mucormycosis diagnosis. These cohorts were evaluated across characteristics recorded in the EMR within 1 year prior to and including the date of mucormycosis record. Mortality was evaluated with Kaplan-Meier statistics as survival until recorded death on or after mucormycosis diagnosis.

**Results.** Of 302 patients with mucormycosis from 1/1/2020-6/8/2021, 30 patients (10%) had M+COV, and 272 (90%) had MnCOV. Among the M+COV cohort, 22 patients (73%) had mucormycosis recorded within 2 weeks of COVID-19 infection. The M+COV and MnCOV cohorts had majority male sex (65.59%; p<0.93) and a similar prevalence of transplanted organs (40.28%; p=0.16), long-term drug therapy (60.54%; p=0.56), chronic kidney disease (43.31%; p=0.16), and glucocorticoid treatment (67.64%; p=0.76). The M+COV cohort had a greater prevalence of type II diabetes mellitus (67.35%; p=0.01), acidois (53.22%; p=0.01), and posthemorrhagic anemia (43.14%; p<0.01) than the MnCOV cohort. M+COV patients seem to progress to mortality more quickly than MnCOV patients (p=0.01, see Figure 1).

Figure 1. Survival until all-cause mortality after mucormycosis diagnosis, 0-180 days, among patients with (M+COV) and without (MnCOV) COVID-19 preceding the infection.

**Conclusion.** This study found that patients in the US with mucormycosis and current or previous COVID-19 infection have a greater prevalence of underlying conditions, including diabetes, and more rapid progression to mortality than those
without COVID-19. The nature of the potential relationship between comorbidities, mucormycosis, and COVID-19 should be explored further.

Disclosures. All Authors: No reported disclosures

122. Impact of Infectious Diseases Consultation in Patients with Candidemia at a Large Multi-site Healthcare System Providing Telemedicine Services

Katie Hammer, Pharm.D., BCPS-AQ ID¹; Andrew Shifflet, PharmD, BCPS, BCIDP²; Megan Pettes, PharmD, BCIDP²; Rohit Soman, MS, RPh, BCPS³; Julie E. Williamson, PharmD, BCPS⁴; Lehigh Ann Medaris, MD⁵; zainab shahid, MD⁶; ¹Atrium Health, SC, SC; ²Levine Cancer Institute, Charlotte, North Carolina

Session: O-25. New Findings in Medical Mycology

Background. Candida species are the most common cause of fungemia and are associated with high mortality. Management concordant with the Infectious Diseases Society of America guidelines and infectious diseases consultation (IDC) have been shown to lower mortality in patients with candidemia. The purpose of this study was to compare in-hospital mortality at a large multi-site healthcare system, including sites providing IDC via telemedicine services, in patients with candidemia with and without IDC.

Methods. This was a retrospective, observational cohort study completed at ten sites of Legacy Atrium Health in Charlotte Metro, NC, USA; at five sites, IDC is performed via telemedicine. Adult hospitalized patients identified with candidemia were enrolled May 2018-June 2019. The primary outcome was in-hospital mortality of IDC and non-IDC patients. Secondary outcomes included obtainment of repeat blood cultures, receipt of antifungal treatment, duration of therapy, removal of central venous lines (CVC) when present, and ophthalmological examination. Fisher’s exact, Chi-Square, or two-tailed Student’s t-test were used for demographics, primary and secondary outcomes as appropriate.

Results. A total of 126 patients were enrolled: 103 (82%) in the IDC group and 23 (18%) in the non-IDC group (Table 1). Mortality was significantly lower, and rates of repeat blood culture obtainment and receipt of antifungal treatment were significantly higher in patients with IDC (Table 2). Other outcomes including duration of therapy, removal of CVC, repeat cultures within 48 hours, and ophthalmological examination were not statistically different between groups.

| Table 1: Infectious Diseases Consultation (IDC) and Non-IDC Demographics |
|-----------------|-----------------|-----------------|-----------------|
| **Age (years), mean** | 59 | 66 | 0.09 |
| **Weight (kg), mean** | 81.1 | 83.5 | 0.75 |
| **Recent Azole Exposure, n (%)** | 12/103 (12%) | 2/23 (9%) | 0.99 |
| **Empiric Antifungal Treatment, n (%)** | | | |
| Fluconazole, 54 (50%) | 28/101 (28%) | 6/13 (46%) | 0.20 |
| Echinocandin, 79 (69%) | 72/101 (71%) | 7/13 (54%) | 0.21 |
| Other, 3 (3%) | 3/101 (3%) | 0/13 (0%) | 0.99 |
| **Empiric Dosing (mg), mean** | | | |
| Fluconazole, 364.3 | 339.3 | 0.57 |
| Echinocandin, 51.1 | 50 | |
| **Definitive Antifungal Treatment, n (%)** | | | |
| Fluconazole, 67 (63%) | 59/96 (61%) | 8/11 (73%) | 0.53 |
| Echinocandin, 37 (35%) | 54/96 (55%) | 3/11 (27%) | 0.74 |
| Other, 4 (4%) | 4/96 (4%) | 0/11 (0%) | 0.99 |
| **Definitive Dosing (mg), mean** | | | |
| Fluconazole, 453.9 | 375 | 0.39 |
| Echinocandin, 54.6 | 50 | 0.75 |
| **Organism Distribution, n (%)** | | | |
| Candida albicans, 45 (45%) | 35/104 (34%) | 10/24 (42%) | 0.48 |
| Candida glabrata, 44 (40%) | 50/104 (48%) | 6/24 (25%) | 0.35 |
| Candida parapsilosis, 16 (13%) | 12/104 (12%) | 4/24 (17%) | 0.50 |
| Candida tropicalis, 11 (9%) | 8/104 (8%) | 2/24 (13%) | 0.43 |
| Candida krusei, 9 (7%) | 9/104 (9%) | 0/24 (0%) | 0.21 |
| Candida Other, 3 (2%) | 3/104 (3%) | 0/24 (0%) | 0.47 |
| **Antifungal Resistance, n (%)** | | | |
| Fluconazole Resistance | 11/34 (31%) | 1/21 (5%) | 0.69 |
| Echinocandin Resistance | 0/20 (0%) | 0/13 (0%) | 0.99 |
| **Hospital Length of Stay (days), mean** | 21.3 | 12.5 | 0.07 |
| **Neutropenia, n (%)** | 4/103 (4%) | 0/23 (0%) | 0.99 |
| **Renal Dysfunction, n (%)** | 48/103 (47%) | 16/23 (70%) | 0.06 |
| **Hepatic Dysfunction, n (%)** | 72/103 (69%) | 18/23 (78%) | 0.45 |

| Table 2: Infectious Diseases Consultation (IDC) and Non-IDC Outcomes |
|-----------------|-----------------|-----------------|-----------------|
| **In-hospital Mortality, n (%)** | 14/103 (14%) | 12/23 (52%) | <0.05 |
| **Repeat Blood Culture Obtained, n (%)** | 97/103 (94%) | 10/23 (44%) | <0.05 |
| **Receipt of Antifungal, n (%)** | 10/103 (98%) | 13/23 (56%) | <0.05 |
| **Duration of Antifungal (days), mean** | 14.9 | 12.3 | 0.11 |
| **Removal of Central Venous Lines, n (%)** | 54/64 (84%) | 6/10 (60%) | 0.09 |
| **Repeat Blood Culture within 48 Hours, n (%)** | 30/103 (29%) | 3/23 (13%) | 0.19 |
| **Ophthalmological Examination, n (%)** | 20/103 (19%) | 1/23 (4%) | 0.12 |

Conclusion. This study is the first multi-site healthcare system providing telemedicine services to evaluate the impact of IDC on candidemia mortality. Ophthalmological examination rates were low in both groups, highlighting a potential area for improvement. IDC had significantly lower mortality, higher rates of antifungal treatment, and higher rates of repeat blood culture obtainment. IDC should be strongly considered in all patients with candidemia.

Disclosures. All Authors: No reported disclosures

123. Oral Brexafenogep Outcomes by Fungal Disease in Patients from an Interim Analysis of a Phase 3 Open-label Study (FURI)

Peter G. Pappas, MD¹; Oliver Cornel, Prof ²; Philipp Koehler, MD³; Todd P. McCarty, MD⁴; Barbara D. Alexander, MD, MHS⁵; Rachel Miller, MD⁶; Jose A. Vaquex, MD, FIDSA⁷; John W. Sanders, III, MD⁸; Caryn Morse, MD⁹; Luis Ostrosky-Zeichner, MD⁴; Robert Krause, MD³; Jurgen Prates, De¹; Andrey Spec, MD, MSCI¹⁰; Riina Rautemas-Richardson, DDS, PhD, FRCPath¹¹; Rohit Bazaz, BCh,MB,PhD¹²; Thomas J. Walsh, MD, PhD (hon)¹³; Francisco M. Marty, MD¹⁴; Isabel H. Gonzalez-Boccio, MD⁵; Marisa Miceli, MD¹⁵; Martin Hoeuing, MD¹⁶; Martin Hoeungl, MD¹⁷; Thomas F. Patterson, MD⁵, Nkechi Azie, MD²⁰; David A. Angulo, MD²¹; ¹University of Alabama at Birmingham, Birmingham, Alabama; ²University of Cologne, Faculty of Medicine and University Hospital Cologne, Cologne, Nordrhein-Westfalen, Germany; ³University Hospital of Cologne, Cologne, Nordrhein-Westfalen, Germany; ⁴University of Alabama at Birmingham; Birmingham VA Medical Center, Birmingham, Alabama; ⁵Duke University, Durham, North Carolina; Medical College of Georgia at Augusta University, Augusta, Georgia; ⁶Wake Forest School of Medicine, Winston-Salem, North Carolina; ⁷Wake Forest Baptist Hospital, Winston-Salem, North Carolina; ⁸University of Texas Health Science Center, Houston, Houston, Texas; ⁹Medical University of Graz, Section of Infectious Diseases and Tropical Medicine, Department of Internal Medicine, Graz, Steiermark, Austria; ¹⁰Medical University of Graz, Graz, Steiermark, Austria; ¹¹Division of Infectious Diseases Washington University in St. Louis, ST LOUIS, MO; ¹²University of Manchester, Manchester, England, United Kingdom; ¹³Manchester University NHS Foundation Trust, Manchester, England, United Kingdom; ¹⁴Weill Cornell Medicine, New York, NY; ¹⁵Brigham and Women’s Hospital, Boston, MA; ¹⁶University of Michigan, Ann Arbor, Michigan; ¹⁷UC San Diego, San Diego, California; ¹⁸University of Texas Health San Antonio, San Antonio, TX; ¹⁹SCYNEIXIS, Inc., Jersey City, New Jersey

FURI Study Group

Session: O-25. New Findings in Medical Mycology

Background. Candida species are a major cause of invasive and mucocutaneous infections. There are limited oral treatment options available for patients with Candida infections who are unresponsive to or who are intolerant of currently available antifungals. Oral brexafungin is an investigational broad-spectrum glucan synthase inhibitor antifungal with activity against Candida and Aspergillus species, including azole- and echinocandin-resistant strains. A Phase 3 open-label, single-arm study of ibrexafungerp (FURI; NCT03059992) is ongoing for the treatment of patients intolerant of or with fungal disease refractory to standard antifungal therapy. We present an analysis of patient outcomes from the FURI study by fungal disease type.

Abstracts • OFID 2021:8 (Suppl 1) • S73