more than one *Candida* spp. isolated were excluded. Patient data were collected using electronic medical records and microbiology laboratory reports.

Results. Out of 835 VAD patients screened, there were 57 candidemia episodes across 38 patients resulting in an incidence of 6.2%. *C. glabrata* was the most common species (13/38, 34.2%), followed by *C. albicans* (10/38, 26.3%), *C. parapsilosis* (6/38, 15.8), *C. tropicalis* (5/38, 13.2%), and *C. krusei* (3/38 (7.9%). Ten patients had an echinocandin nonsusceptible first isolate (26.3%). In patients with recurrent candidemia, echinocandin nonsusceptibility rose as high as 55.6%. *Candida* species was the only independent risk factor for antifungal nonsusceptibility (OR, 1.9; 95% CI, 1.0–3.4). Micafungin was the most common initial antifungal (34/38, 89.5%) but seven patients required salvage therapy with amphotericin and/or combination therapy (18.4%). Nineteen patients died prior to discharge (50.0%) and 29 patients died within 1 year (76.3%). Independent risk factors for in hospital mortality included APACHE II score (OR, 1.4; 95% CI, 1.1 – 1.8) and persistent candidemia (OR, 12.9; 95% CI, 1.3–129.6). Only three patients survived to heart transplant (7.9%).

Conclusion. Resistance and mortality rates in this patient population are extremely high. Micafungin was the most common antifungal used but antifungal choice did not appear to impact 1 year mortality. While this is the largest cohort of patients with VAD-associated candidemia to date, larger, prospective studies are needed to guide management of these infections.

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378. *Candida auris* Fungemia: Risk Factors and Outcome

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Background. *Candida auris* emerged as a human pathogen in 2009 and has subsequently been identified around the world as a cause of invasive candidiasis. Published clinical information on this organism consists primarily of case reports and small case series; thus, data from a single institution will allow us to examine risk factors for acquiring *C. auris* candidemia in comparison to other *Candida* species.

Methods. Aga Khan University Hospital Nairobi is a 280-bed referral center with 50 critical care beds. *Candida* species account for 34% of hospital acquired bloodstream infections (Maina et al., 2016). Blood cultures were monitored continuously using the Bactec and the VitekII was used for identification and susceptibility. The VitekII identified *C. auris* as *Candida haemulonii*, but species determinations were done for 21 of the isolates and all were identified as *C. auris* using published methods (Pfaller et al., 2012).

Results. From September 2010 to December 2016, 201 patients had 228 episodes of candidemia. Further analyses were performed only for first episodes. *C. auris* accounted for 38% of candidemia cases and 25% for *C. albicans*. A case–control analysis was done to compare patients with *C. auris* vs. *Candida albicans* fungemia. *C. auris* patients were more likely to be from critical care beds (78% vs. 52%; $P = 0.003$) and had been hospitalized longer (mean 33 days vs. 13 days; $P < 0.001$) prior to the positive blood culture. There was a trend toward more pre-existing renal failure (39% vs. 24%; $P = 0.09$) in *C. auris* patients and during the two weeks prior to candidemia, they were more likely to have central lines (84% vs. 54%; $P \leq 0.001$). *C. auris* patients received a mean of 3.35 antibiotic classes vs. 2.6 for *C. albicans* ($P = 0.02$). 75% of *C. auris* patients received carbapenems vs. 54% for *C. albicans* ($P = 0.02$). Eighteen percent of *C. auris* patients had ≥14 days of candidemia, despite frequent lack of followup blood cultures. Prolonged candidemia was not associated with development of in vitro resistance. The crude mortality was 29%, compared with 36% for *C. albicans* and 39% for other *Candida* spp. (NS).

Conclusion. These findings suggest an opportunistic pathogen that may be less virulent, but difficult to eradicate and that control efforts should focus on antimicrobial usage.

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379. Pediatric Bloodstream Infections by *Candida auris* in Colombia: Clinical Characteristics and Outcomes of 34 Cases

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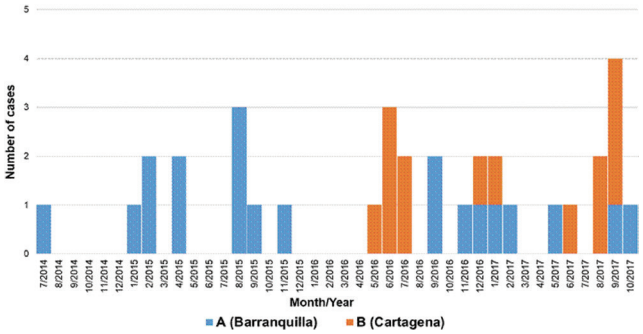
Background. The emerging multidrug-resistant yeast *Candida auris* can cause invasive infections associated with high mortality. To date, a majority of *C. auris* infections have been reported among adults. This report describes cases of pediatric *C. auris* bloodstream infections (BSI) that occurred during January 2015–September 2016 at two hospitals in Colombia.

Methods. After the Colombian National Institute of Health released a clinical alert about *C. auris* in September 2016, we conducted a retrospective review of microbiology records for possible *C. auris* cases in two acute care hospitals in Barranquilla and Cartagena. BSIs occurring in patients <18 years confirmed as *C. auris* were included in this analysis. Patient information was collected from medical records.

Results. We identified 34 children with *C. auris* BSI. Cases appeared to cluster in time within each hospital (Figure 1). Twenty-two (65%) patients were male, 21% were <28 days old, 47% were 29–365 days old, and 32% were >1 year. Underlying conditions included preterm birth (26%), altered nutritional status (59%), cancer (12%), solid-organ transplant (3%), and renal disease (3%). Eighty-two percent had a central venous catheter (CVC), 82% on respiratory support, 56% received total parenteral nutrition (TPN), 15% had a surgical procedure, and 9% received hemodialysis. All patient received antibiotics in the 14 days before *C. auris* BSI, and 97% received antifungal treatment for BSI. Median inpatient stay before onset of *C. auris* BSI was 22 days (interquartile range: 17–30 days), and in-hospital mortality was 41%.

Conclusion. Similar to other *Candida* BSI, *C. auris* affects children with a variety of medical conditions including prematurity, malignancy, and those with CVCs, and receiving TPN. Mortality was high, with nearly half of patients dying before discharge. However, unlike most other *Candida* species, *C. auris* can be transmitted in healthcare settings, as suggested by the close clustering of cases in time at each of the hospitals. Pediatric wards should be vigilant for *C. auris* outbreaks and take necessary infection control measures to stop the spread of the organism.

Figure 1. Timeline of cases of *C. auris* pediatric bloodstream infections in two medical institutions in Colombia, January 2015–September 2016.



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

380. *Drosophila melanogaster* as a Facile Model for Large-Scale Studies of Virulence Mechanisms and Antifungal Drug Efficacy in *Candida auris* Candidiasis

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Background. *Candida auris* is an emerging multi-drug-resistant human pathogen. Experimental data on the pathogenicity of *C. auris* is scarce, especially regarding its virulence compared with *C. albicans*. Additionally, studies of drug efficacy against *C. auris* rely on conventional animal models that are laborious and low throughput; alternative, less cumbersome models are desirable. To that end, we developed a *C. auris* fly infection model.

Methods. We injected 2-week-old $Toll^{l\text{-}RXA}/Toll^{r6.32}$ female flies with a needle dipped in *Candida* solutions (10^8 yeast cells/mL) in the dorsal side of the thorax. Flies were infected with 10 different *C. auris* strains (source: CDC/FDA) and a *C. albicans* clinical strain. For drug protection studies, *C. auris* isolate AR-BANK#0386 [MICs: fluconazole (FLC) > 64, posaconazole (POSA) 0.125–0.25, isavuconazole (ISA) 0.25–1, voriconazole (VRC) 0.5–2 μg/mL)] was used. We assessed survival differences associated with different inocula (10^7 to 10^{10} yeast cells/mL) and yeast strains. Moreover, protection conferred by addition of FLC, VRC, ISA, POSA, or FLC combined with 5-FC (flucytosine) and/or nikkomycin Z (NikZ) to fly food was studied. Three independent runs were performed for each experiment.

Results. A) All *C. auris* strains and *C. albicans* exhibited comparable *in vitro* growth rates. B) All strains of *C. auris* were similarly more virulent than *C. albicans* ($P < 0.0001$), with all flies dying by day 7 post-infection. C) FLC, VRC, ISA, FLC+5-FC, FLC+NikZ, or FLC+NikZ+5-FC-fed flies infected with *C. auris* #0386 had comparably poor survival outcomes compared with untreated *C. auris* #0386-infected flies. Interestingly, survival rates were improved in POSA-fed infected flies compared with