Background. Opioid misuse is epidemic in the United States (US), and persons who inject drugs are at increased risk for serious bacterial and fungal infections, including Candida bloodstream infections. Historically, candidemia has occurred almost exclusively among patients with severe underlying illness and extensive healthcare exposure. We examined whether the opioid crisis may be having an impact on the epidemiology of candidemia in the United States.

Methods. Using data from 200 US hospitals reporting to the Premier Healthcare Database (PHD) between 2012–2017, we conducted a retrospective study among hospitalized persons ≥ 18 years. Candidemia was defined by any blood culture yielding Candida species. Drug use-associated (DUA)-candidemia hospitalizations were defined as hospitalizations having both candidemia and at least one ICD-9-CM or ICD-10-CM diagnostic code for recreational drug use; drugs were classified as opioids, cocaine, amphetamines, or other drugs (excluding cannabis, alcohol, and nicotine). We described the characteristics and annual trends of candidemia hospitalizations stratified by drug use.

Results. Of 7,590 candidemia hospitalizations during 2012–2017, 679 (9%) were DUA-candidemia. During this time, the rate of DUA-candidemia increased from 3.6 to 9.1 per 100,000 hospitalizations, while the rate of non-DUA-candidemia decreased from 64.7 to 55.6 per 100,000 hospitalizations. Patients with DUA-candidemia were younger (median 40 vs. 64 years), had a longer length of stay (median 14 vs. 13 days), and had lower in-hospital mortality (12% vs. 26%). Among DUA-candidemia hospitalizations, opioids accounted for 78% of substances identified. Among patients aged 18–44 years, the proportion of candidemia hospitalizations associated with drug use more than tripled from 13% in 2012 to 44% in 2017 (Figure 1).

Conclusion. DUA-candidemia hospitalizations increased almost 3-fold during 2012–2017, with drug use identified in nearly half of candidemia patients ages 18–44 years in 2017. These data suggest that the opioid crisis is having an impact on the epidemiology of candidemia in the United States, especially among young adults, underscoring an additional negative consequence of the ongoing crisis.

Disclosures. All authors: No reported disclosures.

2464. Partnerships in the Field: Using Real-time Sequencing to Enhance Epidemiologic Investigation and Response to a Norovirus Outbreak

Handy K. Lori, MD, MSCE1; Erin H. Graf, PhD, D(ABBM)2; Linda Brostowski1; Lindsay Cunnigham, BS3; Caitlin Dougherty, ASCP4; Kayla Molitoris, ASCP5; Sara Townsend, MS-HQS6; Sarah Smathers, MPH, CIC, FAPIC7; Julie S. Sammons, MD, MSCE1; Children’s Hospital of Philadelphia, Philadelphia, Pennsylvania; Children’s Hospital of Philadelphia, Philadelphia, Pennsylvania; CHOP, Croydon, Pennsylvania

Session: 257. HAI: Outbreaks
Saturday, October 5, 2019: 12:15 PM

Background. Norovirus is a common cause of infectious gastroenteritis and frequently leads to hospital-based outbreaks of gastrointestinal (GI) illness. We utilized hospital-wide surveillance to detect outbreaks of GI illness among patients and healthcare workers (HCWs). Real-time norovirus sequencing was applied to establish conclusions in between patient cases.

Methods. Patient cases of healthcare-associated GI illness were detected through conventional epidemiologic methods. Partnership between hospital epidemiology and laboratory identified the need for hospital-wide infection prevention measures to halt ongoing transmission.

Disclosures. All authors: No reported disclosures.

2465. Healthcare-Associated Pediatric Cutaneous Mucormycosis at Texas Children’s Hospital, 2012–2019

Catherine Foster, MD3; Paula Bevell, PhD1; Judith R. Campbell, MD1; Lucila Marquez, MD, MPH1; Baylor College of Medicine/ Texas Children’s Hospital, Houston, Texas

Session: 257. HAI: Outbreaks
Saturday, October 5, 2019: 12:15 PM

Background. Cutaneous mucormycosis in children is a rare fungal infection which primarily occurs in patients with underlying medical conditions and is associated with significant morbidity and mortality. We describe characteristics of pediatric patients with healthcare-associated (HCA) cutaneous mucormycosis at Texas Children’s Hospital (TCH) and results of an outbreak investigation.

Methods. Patients at TCH were identified retrospectively through review of the TCH Microbiology Laboratory mycology culture reports from 1/1/2012–2/18/2019. Pediatric patients <21 years of age with cutaneous mucormycosis that developed during a hospitalization or was associated with a medical device were included. Demographic information was collected through review of the electronic medical record. Randomly amplified polymorphic DNA (RAPD) analysis were performed by the Fungus Testing Laboratory, University of Texas Health Science Center at San Antonio. This study was approved through the Baylor College of Medicine Institutional Review Board.

Results. We identified 12 patients with HCA cutaneous mucormycosis. The characteristics of these patients are detailed in the table. Six cases of Rhizopus infection occurred over a narrow 7 month period from March through September of 2017 prompting an outbreak investigation. Genotyping results revealed 4 molecular types from 5 available isolates suggesting that the isolates were not clonally related. Adhesive products were suspected as a potential source. Infection Control activities included site visits to the hospital supply vendor and a linen facility. Tapeworms throughout the hospital were assessed through a nursing survey. Samples of adhesive products were cultured at an environmental microbiology laboratory and no Rhizopus spp. were isolated. A source was not identified.

Conclusion. Mucormycosis is a life-threatening infection in children. Providers should have a low threshold of suspicion for cutaneous mucormycosis in patients with underlying medical conditions (malignancies and extreme prematurity) that develop skin lesions near medical device dressings or securing sites.

Table. Characteristics of healthcare-associated cutaneous mucormycosis cases

| Characteristic                          | Cases Positive N = 12 |
|----------------------------------------|-----------------------|
| Age (median)                           | 0.7 years (0.00–16.6) |
| Gender, N (%)                          |                       |
| Female                                 | 8 (67)                |
| Male                                   | 4 (33)                |
| Underlying conditions, N (%)           |                       |
| None                                   | 5 (42)                |
| Extreme prematurity                    | 6 (50)                |
| Malnutrition                           | 5 (42)                |
| Congenital heart disease               | 1 (8)                 |
| Solid organ transplant                 | 1 (8)                 |
| Infection extent, N (%)                |                       |
| None                                   | 6 (50)                |
| Invasive                               | 3 (25)                |
| Disseminated                           | 3 (25)                |
| Infection location, N (%)              |                       |
| CVIC or PV site                        | 5 (42)                |
| Device external securing site          | 3 (25)                |
| Genres, N (%)                          |                       |
| Rhizopus                               | 11 (92)               |
| Mucor                                  | 1 (8)                 |
| Outcomes, N (%)                        |                       |
| Successful treatment                   | 5 (42)                |
| 30 day mortality                      | 4 (33)                |

Disclosures. All authors: No reported disclosures.