

Presentation Type:

Poster Presentation - Top Poster Award

Subject Category: Emerging Pathogens

Alarming prevalence of *Candida auris* among critically ill patients in intensive care units in Dhaka City, Bangladesh

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Background: *Candida auris* is a multidrug-resistant yeast capable of invasive infection with high mortality and healthcare-associated outbreaks globally. Due to limited laboratory capacity, the burden of *C. auris* is unknown in Bangladesh. We estimated the extent of *C. auris* colonization and infection among patients in Dhaka city intensive care units. **Methods:** During August 2021–September 2022 at adult intensive care units (ICUs) and neonatal intensive care units (NICUs) of 1 government and 1 private tertiary-care hospital, we collected skin swabs from all patients and blood samples from sepsis patients on admission, mid-way through, and at the end of ICU or NICU stays. Skin swab and blood with growth in blood-culture bottle were inoculated in CHROMagar, and identification of isolates was confirmed by VITEK-2. Patient characteristics and healthcare history were collected. We performed descriptive analyses, stratifying by specimen and ICU type. **Results:** Of 740 patients enrolled, 59 (8%) were colonized with *C. auris*, of whom 2 (0.3%) later developed a bloodstream infection (BSI). Among patients colonized with *C. auris*, 27 (46%) were identified in the ICU and 32 (54%) were identified from the NICU. The median age was 55 years for *C. auris*-positive ICU patients and 4 days for those in the NICU. Also, 60% of all *C. auris* patients were male. Among 366 ICU patients, 15 (4%) were positive on admission and 12 (3%) became colonized during their ICU stay. Among 374 NICU patients, 19 (5%) were colonized on admission and 13 (4%) became colonized during their NICU stay. All units identified *C. auris* patients on admission and those who acquired it during their ICU or NICU stay, but some differences were observed among hospitals and ICUs (Figure). Among patients colonized on admission to the ICU, 11 (73%) were admitted from another ward, 3 (20%) were admitted from another hospital, and 1 (7%) were admitted from home. Of patients colonized on admission to the NICU, 4 (21%) were admitted from the obstetric ward, 9 (47%) were admitted from another hospital, and 6 (32%) were admitted from home. In addition, 18 patients with *C. auris* died (12 in the ICU and 6 in the NICU); both patients with *C. auris* BSIs died. **Conclusions:** In these Bangladesh hospitals, 8% of ICU or NICU patients were positive for *C. auris*, including on admission and acquired during their ICU or NICU stay. This high *C. auris* prevalence emphasizes the need to enhance case detection and strengthen infection prevention and control. Factors contributing to *C. auris* colonization

should be investigated to inform and strengthen prevention and control strategies.

Disclosure: None

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Subject Category: Environmental Cleaning

Modifying water use practices to eliminate *Pseudomonas aeruginosa* bloodstream infections in the neonatal intensive care unit

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Objective: To describe the strategies implemented at a tertiary-care health-care center neonatal intensive care unit (NICU) to control and assure prevention of subsequent central-line bloodstream infections (CLABSIs) with *Pseudomonas aeruginosa* after 4 cases of CLABSI with this organism were detected. **Methods:** During the months of September 2020 to February 2021, 4 cases of CLABSI with *Pseudomonas aeruginosa* were reported in our NICU in patients meeting criteria for extremely low birthweight (ELBW) infants. All patients were treated according to IDSA guidelines for management of bloodstream infections. To avoid the appearance of new events and to improve existing policies, we implemented a stepwise approach by reviewing routine disinfection and/or cleaning procedures of isolettes: (1) liners for bath basins were applied, (2) sterile water was provided for bathing newborns, (3) we ensured timely biomed preventive maintenance of water reservoirs for patient care equipment (nebulizers, isolettes and fluid warmers), and (4) we implemented the installment of point-of-care filters for tap water. **Results:** Measures were implemented from February 2021 to July 2021. During the following year from July 2021 to June 2022, no CLABSIs related to *Pseudomonas aeruginosa* were reported in our NICU in patients meeting criteria for ELBW infants. **Conclusions:** Recognition of CLABSI from organisms from water resources is important to implementing focused prevention strategies targeting water resources and water utilization practices. In our institution, these interventions yielded complete resolution, with no new infection events.

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Subject Category: Infection Control in Low and Middle-Income Countries

Approach for sustainable district-led production and distribution of alcohol-based hand rub in Uganda

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Background: A sustainable, continuous supply of alcohol-based hand rub (ABHR) is essential for healthcare workers in health facilities. The WHO provides guidance for production in individual health facilities. In Uganda, using this guidance, an innovative approach was implemented at the district local government level to produce and subsequently distribute ABHR to primary-care health facilities that have limited capacity for local facility-level production. This project was supported by the CDC in collaboration with the Infectious Diseases Institute (IDI) and targeted governmental or district engagement with local partners to ensure sustainability. **Methods:** District stakeholders were engaged to obtain buy-in and define roles and responsibilities. Overall, 4 staff members in each of 6 supported districts were nominated by District Health Officers for training; 2 staff members were trained to produce ABHR and conduct internal quality control and 2 were trained on external quality control. Districts provided ABHR production-unit facilities and facilitated integration within the government essential supplies delivery system, National Medical Stores in Uganda, which supports last-mile delivery to facilities. An implementing partner purchased initial raw materials necessary for production. The cost of materials for local production was compared to the price of commercial ABHR available in Uganda. **Results:** Between January and August 2021, 23 staff

