

Presentation Type:

Poster Presentation

Resource Constraint Hindering Infection Prevention and Control: Evidence From Tertiary-Care Public Hospitals in Bangladesh

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Background: Despite gradual economic growth in Bangladesh, healthcare facilities are still resource limited and do not measure up to the standard to practice for infection prevention and control (IPC) in reducing the risk of hospital-acquired infections. We assessed the existing resources and facilities in tertiary-care public hospitals to guide a context-specific low-resource IPC intervention for routine use in Hospital wards. **Methods:** We conducted the study in 3 tertiary-care hospitals from November 2017 to January 2018. The study team collected data on existing facilities and resources associated with IPC strategy from hospital records, semi-structured interviews with different level healthcare staff (n = 176) and spot checks (n = 30). **Results:** The mean bed occupancy rates for study hospitals were 165%, 200%, and 150%, respectively, on admission days. Among study wards, medicine ward (230%) had the highest bed occupancy rate. Different types of patients were placed together in the wards, and there were no isolation areas for highly infectious patients. Moreover, 22%–58% posts of physicians, 15%–20% of nurses and 38%–42% of support staff were vacant against the authorized posts in these hospitals. There were no usable handwashing facilities for support staff, patients, and family caregivers; however, all the allocated handwashing facilities for physicians and nurses were functional. On average, 50% fewer surgical gloves were provided than were actually required. Although supplies of masks were available in the surgery theater, no supplies in general wards were recorded. Disposable nasal cannula for oxygen and nebulizer masks was unavailable; hence, providers had to reuse this equipment for multiple patients. Most of the autoclave machines (20 of 30) were non-functional; therefore, one-third of the surgical instruments could not be sterilized by autoclaving. None of the hospital wards followed the 3 steps of surface cleaning, and no segregation of hazardous wastes was observed. All kind of wastes were dumped in the selected open area within the hospital premises. Healthcare workers (n = 110)

directly involved in patient care reported that hand hygiene is usually not possible between patient visits. High turnover of patients and shortage of healthcare staff were reported as major barriers to IPC practices, specifically hand hygiene and environmental cleaning. There was no active committee nor specific training program on IPC for healthcare staff. **Conclusions:** Existing resources and facilities of these hospitals did not support a standard IPC strategy. Coordination from policy level to implementation with proper allocation of resources is required to ensure a practical IPC strategy.

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Review of *Candida dubliniensis* at a Pediatric Hospital

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Background: *Candida dubliniensis* is a worldwide fungal opportunistic pathogen, closely related to *C. albicans*. Originally identified in patients infected with HIV in Dublin, Ireland, *C. dubliniensis* has emerged as a pathogen in other immunocompromised individuals, including patients receiving chemotherapy and transplant recipients. Pediatric epidemiological data for this organism are limited. **Methods:** We report a descriptive review of *C. dubliniensis* isolates recovered between January 2018 and June 2019 at a large tertiary-care pediatric institution in Columbus, Ohio. **Results:** *C. dubliniensis* was identified in 48 patients in the 18-month review period. In total, 67 positive cultures were collected in these patients with the following distribution of sources: 44 sputum (66%), 11 bronchoalveolar lavage fluid (16%), 4 blood (6%), 3 wounds (4%), 2 esophageal (3%), 2 peritoneal fluid (3%), and 1 vaginal (1%). Of the 48 patients in whom *C. dubliniensis* was identified, 35 (73%) were patients with cystic fibrosis. Also, 8 patients (17%) were considered to have clinical infections and received antifungal therapy: 3 patients with pneumonia, 2 patients with esophagitis, 1 patient with peritonitis, 1 patient with

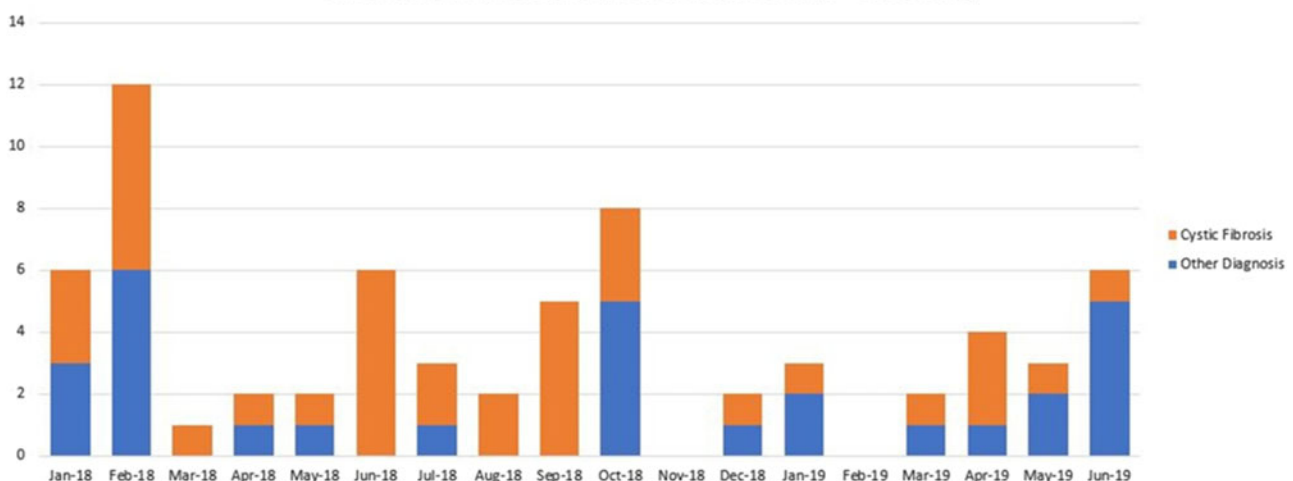
Candida dubliniensis January 2018 to June 2019 (N = 67 Isolates)

Fig. 1.