**Pseudomonas infections in Healthcare: increasing resistance in children**

**ABSTRACT**

Background: Resistant Gram-negative bacteria are an emerging concern. They are causing healthcare-associated infections that are difficult to treat due to high level of antimicrobial resistance and are associated with high mortality. *Pseudomonas aeruginosa* (PA) is among the WHO critical priority list. It causes substantial morbidity and mortality in severely ill and immunocompromised patients.

Methods: This is a 7-year retrospective study of PA from 2009 to 2015 at a Children’s hospital. Incidence of ram-negative bacteremia (GNR) bacteremia was calculated per 1000 patients days. Trend analysis of ceftazidime (CZ) and Carbepenem (CRPsA) was further evaluated. CZ is the first-line choice of antibiotics for febrile neutropenia patients at our hospital.

Results: Incidence of PA in our health system with 0.13 to 0.35 bacteremias per 1,000 patient days with a range of 7 to 21 per year. Enterobacteriaceae (E. coli followed by Klebsiella) were the most common followed by PA that was the 3rd most common cause of GNR bacteremia. There is an increasing resistance in PA bacteremia to CZ (Figure 1). However, this trend was not detected on the hospital wide antibiotic. In CRPsA susceptibility rates were 78% to 100% during the study period.

Conclusion: Increasing resistance to ceftazidime is of great concerns as monotherapy is associated with increased likelihood of survival.

**REFERENCES**


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