Enterococcus resistance in critically ill pediatric patients in zahedan Ali ebne abitaleb hospital

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ABSTRACT

Introduction: From relative obscurity, Enterococcus has become a leading cause of nosocomial infection. This has been attributed, in part, to the growth in susceptible host populations, increased use of intravascular devices, prolonged hospital stay, and widespread antibiotics use. Furthermore, the facility with which Enterococcus acquire resistance characteristics coupled with their capacity to survive in the environment renders them uniquely suited as nosocomial opportunists and have resulted in global dissemination of resistant strains. We aimed to determine the frequency of vancomycin-resistant enterococci (VRE) infection occurrence, Enterococcus resistance with linezolid and colistin in children in a pediatric intensive care unit (PICU) and burned ward to identify associated risk factors and reduce Enterococcus resistance prevalence.

Materials and Methods: Blood culture and wound cultures were taken from 250 children 18 years old or younger who were admitted with serious systemic illness in PICUs and burned ward from January 2016-December 2017. This database was reviewed to obtain information about Enterococcus resistance infection.

Results: A total of 250 patients with a mean age of 30 ± 22.5 months were enrolled in this study. 48 patient were positive blood culture with Enterococcus. The prevalence of VRE in positive Enterococcus blood culture was 52%. Enterococcus resistant to linezolid reported in 28% and to colistin was 24%.

Conclusion: VRE colonization has important consequences in pediatric critically ill patients. Strict infection control measures should be implemented to prevent VRE colonization and thereby VRE infections and enterococcus resistance to multidrug. Furthermore, irrational antibiotic use should be restricted.