



PREVALENCE, OUTCOME, LENGTH OF HOSPITALIZATION AND ATTRIBUTABLE DIRECT MEDICAL COSTS OF ESKAPE INFECTIONS IN PHILIPPINE CHILDREN'S MEDICAL CENTER (JANUARY 2018 TO DECEMBER 2022)

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INTRODUCTION

Antimicrobial resistance is one of the top ten public health threats faced worldwide. Global Antimicrobial Resistance and Use Surveillance System (GLASS) report in 2021 and listed the organisms that are increasingly involved in drug-resistant infections, aptly given the mnemonic *ESKAPE*: *Enterococcus species*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Enterobacter species*.

METHODS

This is a retrospective cohort study of pediatric patients admitted in PCMC from January 2018 to December 2022. Data was collected through chart and records review, and analysis done using real statistics and SPSS V.17.

RESULTS

331 patients with *ESKAPE* . infections were included in the study. Patients with drug-resistant *ESKAPE* infections were commonly seen among hospitalized patients with underlying neurologic, gastrointestinal, hematologic-oncologic, or respiratory conditions. The prevalence of drug-resistance was found to be as high as 73.7% with a higher incidence in those admitted in the ICU, those with use of mechanical ventilator and those with central catheters. The most common isolate for drug-resistant *ESKAPE* infections was *Klebsiella pneumoniae*. Mortality rate did not differ significantly between those with drug-susceptible and drug-resistant *ESKAPE* infections. The length of hospitalization and attributable direct medical costs of patients with drug-resistant *ESKAPE* infections were also significantly higher.

DISCUSSION

This study found that drug-resistant *ESKAPE* infections are prevalent especially among those admitted in the ICU, with use of mechanical ventilator, with central catheters and are associated with longer hospitalization and increased attributable direct medical costs. Hence, antimicrobial stewardship and infection prevention and control measures are of paramount importance.

KEYWORDS

multi-drug resistance, *ESKAPE*, attributable direct medical costs