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Antibiotic practice for pneumonia among under-five children in inpatient department at a private pediatric teaching hospital in Dhaka city, Bangladesh

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Background: Pneumonia is the leading cause of morbidity and mortality among under-five children for more than three decades, particularly in low income countries like Bangladesh. World Health Organization (WHO) developed pneumonia case management strategy which included use of antibiotics for both primary and hospital based care. This study aims to describe antibiotic practice for treating pneumonia among children in a private pediatric teaching hospital in Dhaka city, Bangladesh.

Methodology: We conducted this cross-sectional study during November, 2012 in a private pediatric hospital in Dhaka city and the study participants were <5 children admitted with pneumonia.

Findings: We enrolled 80 children during the study period. Among them 28 (35.4%) were underweight, 14 (17.7%) moderately underweight and 13 (16.5%) severely

underweight. Based on WHO classification (2005), 43 (54%) had severe and 37 (46%) had very severe pneumonia, diagnosed by research physician. Among the prescribed antibiotics in the hospital, parenteral ceftriaxone was the most common 40 (50%) followed by cefotaxime plus Amikacin 14 (17.5%), cefuroxime 7 (8.8%), ceftazidime plus amikacin 6 (7.5%), ceftriaxone plus amikacin 3 (3.8%), meropenem 2 (2.5%), cefepime 2 (2.5%) and cefotaxime 2 (2.5%).

Conclusion: Despite WHO pneumonia treatment strategy, use of higher generation cephalosporin and carbapenem was high in the study hospital. The results underscore the non adherent use of antibiotic to WHO guidelines the importance of antibiotic surveillance and enforced regulatory policy implication for the rational use of antibiotics in treating hospitalized children with pneumonia.

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