

BLOOD CULTURE AND MICROBIOLOGY PROFILE AT THE PEDIATRIC WARD OF Dr. SOETOMO HOSPITAL; A DESCRIPTIVE STUDY FOCUSED ON THREE BACTERIA

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OBJECTIVE : Blood culture is very important in determining the cause of infections. The Department of Microbiology and The Department of Child Health at Dr. Soetomo Hospital were routinely evaluated the results of those cultures in order to continuously improve the quality of management and also patient safety. The objective of this study was to analyze the result of the microbiological culture of the blood specimens in the pediatric ward of Dr. Soetomo Hospital in 2018.

METHODS : This was a cross-sectional study, analyzing the microbiology data which recorded routinely on a daily basis from all patients at the pediatric ward of Dr. Soetomo Hospital from January until December 2018. Focus of this study was the blood cultures only. The main presented bacteria were *Klebsiella pneumoniae*, *Staphylococcus aureus*, and *Escherichia coli*. There were also antibiotic sensitivity and resistance test results .

RESULTS : There was 129 positive blood culture in 2018 comprises of 83, 26, and 20 cases of *K. pneumoniae*, *S. aureus* and *E. coli*, respectively. Most of *E. coli* and *K. pneumoniae* were ESBL+. Most of the patients were girls and below 5 year of age. Almost hal of the cases of *K. pneumoniae* came from neonatology unit. More than half of *S. aureus* and *E. coli* cases were belonged to the oncology group. Among *K. pneumoniae* and *E. coli* isolates, there were high rates of resistance to ampicillin and amoxicillin-clavulanate but sensitive to meropenem and amikacin. Among *S. aureus* isolates, the resistance rates to ampicillin were 80% but only 7% for amoxicillin-clavulanate.

CONCLUSION : There were a high proportion of ESBL+ cases in the pediatric ward. *S. aureus* is still sensitive to amoxicillin-clavulanate. Most isolates were sensitive to meropenem.

Keywords : *microbiology, blood specimen, pediatric ward, Klebsiella pneumoniae, Staphylococcus aureus, Escherichia coli.*



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