## **ABSTRACT**

## ANTIBIOTIC UTILIZATION STUDY IN SUSPECTED NEONATAL SEPSIS

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Neonatal sepsis is a clinical syndrome characterized by signs and symptoms of infection with or without bacteremia in the first month of life. Neonatal sepsis can be categorized into two: early onset sepsis (EOS) and late onset sepsis (LOS). Aim of this study was to describe the pattern of antibiotic use in neonatal sepsis cases and identify any possible drug related problems. This study was conducted retrospectively during the period of 1st January to 31<sup>st</sup> December 2017. Inclusion criteria for this study were neonates aged 0-28 days with suspected neonatal sepsis with / without any complications admitted at the Universitas Airlangga Hospital from 1st January to 31<sup>st</sup> December 2017 and were administered antibiotics. The results of study showed that 170 patients met the inclusion criteria, 97 (57%) were female with the most age distribution at age  $\leq$  7 days 169 (99%). The risk factor affecting the occurrence of suspected neonatal sepsis from mother was meconeal amniotic 90 (53%) and from the neonates was asphyxia neonates 92 (54%). Most common clinical symptoms were vomiting occurred in 23 (14%) patients. Duration of treatment ranges from 3-8 days and 169 (99%) patients were discharged with clinical improvement. Most commonly prescribed single antibiotic was ampicillin in 163 (96%) patients, while combination antibiotic was ampicillin and gentamicin in 8 (5%) patients. Antibiotic dose calculated based on the patient's body weight and the most frequent (51%) was ampicillin 50-100 mg/kg body weight bid administered by an intravenous route and mostly given for three days. Last, no drug-related problems were identified. All antibiotics administered were in accordance with the local and national guidelines.

**Keyword**: antibiotic, suspected neonatal sepsis, ampicillin, gentamicin