

Neonatal sepsis: Predictors of positive blood culture and deaths among neonates with suspected sepsis in a tertiary hospital in Ogun State, South-West Nigeria

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Background: Neonatal sepsis remains a significant cause of morbidity and mortality in neonates in developing countries.

Objectives: This study was conducted to determine the prevalence of neonatal sepsis and the predictors of positive blood culture and deaths.

Methods: Eighty-five neonates undergoing sepsis evaluation at the Special Care Baby Unit (SCBU) of Federal Medical Centre, Abeokuta were included in this study. Blood culture was done on Brain Heart Infusion broth and thioglycolate broth followed subcultures and identification of isolates using biochemical methods. Serum C-reactive protein levels and serum Procalcitonin levels were measured using immunoturbidimetric method and immuno-luminometry method respectively. Data was analyzed using SPSS version 17.0

Result: The rate of culture-proven sepsis was 22.4% (19/85). Predictors of positive blood culture in both early and late onset neonatal sepsis were mode of delivery, estimated gestational age, serum C-reactive protein and serum procalcitonin. Deaths occurred in 27 (31.7%) of neonates. Factors that predicted deaths were booking status, place of antenatal care, place of delivery, high pitched cry and serum procalcitonin.

Conclusion: Inadequate antenatal and perinatal care remains associated with neonatal mortality. Procalcitonin, a biomarker in sepsis significantly predicted mortality.