

## Abstract

### Introduction

Globally neonatal conditions remain the leading cause of under five child mortality and the risk is 6 times higher in developing countries (WHO, 2011). A study done at Mulago Hospital revealed that neonatal septicemia alone contributed to 37.5% of infant morbidities and 18.8% of mortalities. (Mugalu et al, 2006). The general objective of the study was to assess the risk factors associated with neonatal septicemia among mothers with neonates admitted at acute care unit Mulago hospital .

**Methods:** A case control study using quantitative methods was conducted at Mulago Hospital. 128 respondents were interviewed of which cases were (n=69) and controls were (n=69). Cases were care takers/mothers of neonates who had been diagnosed with neonatal septicemia and admitted in acute care unit. Controls were care takers/mothers of neonates who were not diagnosed with neonatal septicemia obtained from other admission wards. Respondents were mothers of cases and controls who were retrospectively about the infant exposure risk factors for neonatal septicemia. The study was conducted from the month of September and October. Data was analyzed using SPSS at bivariate and multivariate level and presented in tables and text.

**Results:** The main risk factors for neonatal septicemia among neonates in Mulago hospital were having had fever during delivery period (OR=3.12, CI =1.45- 6.74,P=0.004), abnormal meconium (OR=0.3, CI=0.14-0.65, P=0.002), low birth weight (OR=0.006 CI=0.002- 0.0024, P≤0.001), low Apgar score (OR=31.83, CI=4.15-244.35, P=0.001), very low monthly income (OR=1.24, CI=0.54-2.83, P=0.035)

**Conclusion and recommendations:** Maternal development of fever during delivery period , abnormal colour of meconium,, low APGAR score of infant and low socio economic status of the mother were positive risk factors for neonatal septicemia. Improved ANC attendance for prevention, early detection and treatment of infections. Timely administration of antibiotics to high risk mothers during the delivery period and continuing medical education for medical workers on the risk factors and prevention of neonatal septicemia.