UMBILICAL CORD SEPSIS AMONG NEONATES ADMITTED TO MULAGO HOSPITAL: BACTERIAL AETIOLOGY, PREVALENCE AND IMMEDIATE OUTCOME

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ABSTRACT

Background: Uganda is one of the ten countries with the highest under five mortality rate globally. Progress of the fourth Millennium Development Goal is currently hampered by the slow decline in neonatal mortality rate in Uganda. One of the leading cause of death among these neonates is severe infections. Various studies have shown that neonatal infections may stem from cord sepsis. Cord sepsis has been associated with aseptic deliveries and unhygienic cord care practices. While many mothers still deliver outside health facilities and un-researched traditional newborn care practices are common in our setting, the burden of cord sepsis remains unknown and may be under-appreciated. The aim of this study was to quantify the magnitude of this problem and results used to inform the future management of neonates with cord sepsis.

Methodology: A descriptive cross sectional study design with a prospective component was conducted at Mulago Hospital on all neonates aged 0-15days. Three hundred and fifty eight (358) neonates were screened and 344 were enrolled. Clinical information on history and physical examination was taken. Fifty nine (59) out of 344 neonates had a clinical diagnosis of cord sepsis. Cord pus swabs were taken on these to determine the bacterial etiology for cord sepsis and the neonates were then followed up for a maximum of ten days to determine the immediate outcome.

Findings: Prevalence of cord sepsis in this study was 17.2% (95% CI 13.3 – 21.6) while that of culture proven cord sepsis was 13.4%. *Staphylococcus aureus* (39.8%) was the commonest organism isolated. Gram negative organisms were predominant (60.4%) mainly due to *E. coli* (33.3%), *Proteus* (14.6%) and *Klebiesella* (10.4%). Overall mortality in neonates with cord sepsis was 10.5% (95% CI 4.0 – 21.6).

Conclusions: Prevalence of cord sepsis among neonates in this study was high and warrants more emphasis on preventive measures like cord care education, vigorous hand- washing and promotion of safe cord care practices like the use of saline wash. Continued use of WHO criteria (IMCI adapted guidelines) for clinical diagnosis of cord sepsis is recommended. High prevalence of *Methicillin Resistant Staphylococcal aureus* demonstrated in this study warrants the use of vancomycin instead of penicillin in our setting.