

Childhood septicemia remains the leading cause of morbidity and mortality among children aged 0 - 12 years in developing countries. Appropriate choice of antimicrobial agents for treatment and management depends on adequate knowledge of the bacterial agents and their antimicrobial patterns recovered from positive blood culture in the healthcare settings. In this study, the prevalence of septicemia, the microbial profile and antimicrobial susceptibility patterns to the common antibiotics used in treatment of childhood septicemia was determined.

This was a cross-sectional study conducted between February and July 2015 at Lancet laboratories, Kampala among 211 children. Antimicrobial susceptibility testing and selected laboratory investigations were carried out on 33 culture positive specimen. Data were cleaned and analysed using Excel.

The prevalence of septicemia was 16% (33/211); high bacterial isolation rate was recorded within the age group 0 to 2 years (46%) and lowest among the 9 to 11 year olds. Gram positive isolates accounted for 73% pathogens isolated compared to gram negative isolates 27%. The most common isolates were Coagulase negative staphylococcus (45%), Staphylococcus aureus (15%), Salmonella typhi (12%) and Salmonella species (6%). Other less common pathogens included Listeria Monocytogenes (3.0%), Klebsiella pneumoniae (3.0%), Sphingomonas paucimobilis (3.0%), Acinetobacter (3.0%), Pseudomonas aeruginosa (3.0%) and Streptococcus viridans (3.0%). High antimicrobial sensitivity was observed with Vancomycin, Cloxacillin, Ceftriaxone, Gentamycin, Imipenem and Ciprofloxacin where the least sensitivity was observed with Erythromycin and Tetracyclin. From these findings, there is need for continuous surveillance of the burden of septicemia and antimicrobial susceptibility profiles in different study settings. Erythromycin and tetracycline showed highest resistance, thus not the best choice of drugs for treatment of septicemia in this setting. Ministry of Health should ensure continuous surveillance of the burden of childhood septicemia and the causative organisms in different study settings.