

A Retrospective Cross Sectional Study of Blood Culture Results in a Tertiary Hospital, Ekiti, Nigeria

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Abstract : The current study was conducted to determine the epidemiology and antibiotic sensitivity pattern of bacteria isolated from blood of septicemic patients for improved antibiotic therapy. A three-year descriptive study has been carried out at Microbiology Laboratory, Ekiti State University Teaching Hospital, Ado Ekiti, from April 2012 to April 2015. Information compiled from patients' records includes age, sex, isolated organisms and antibiotic susceptibility patterns. Three hundred and thirteen blood cultures were collected from neonatology and pediatrics wards, Out Patients' Department (OPD) and from other adult patients. Forty-one cultures yielded mono microbial growth (no polymicrobial growth), giving an incidence of 13.1% positive blood culture (N=41/313). There were 58.4% Gram-negative bacilli and 41.6% Gram-positive cocci in the microbial growth. Bacteria isolated were Staphylococcus aureus 34%(14/41), Klebsiella species 22% (9/41), Enterococci 17%(7/41), Proteus species 12%(5/41), Escherichia coli 7%(3/41) and Streptococcal pneumoniae 7%(3/41). There was a (35%) higher occurrence of septicemia in neonates than in any other age groups in the hospital. Bacterial sensitivity to 13 antibiotic agents was determined by antibiotics disc diffusion using modified Kirby Bauer's method. Gram-positive organisms showed a higher antibiotic sensitivity ranging from 14- 100% than the Gram-negative bacteria (11-80%). Staphylococcus aureus and Klebsiella species are the most prevalent organisms. The third generation Cephalosporins (Ceftriaxone) and Floroquinolone (Levofloxacin, Ofloxacin) have proved reliable for management of these blood infections.

Keywords : blood cultures, septicemia, antibiogram, Nigeria

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