NO CHANGE IN ANTIBIOTIC SUSCEPTIBILITY PATTERNS IN TWO NEONATAL-UNITS OVER TWO DECADES

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Aims: Identifying trends in the microorganisms causing early and late neonatal sepsis, analyze their antibiotic susceptibility, and evaluate the validity of the empirical treatment protocols.

Methods: A 17-year (1993-2009) retrospective analysis of positive blood and CSF cultures in two neonatal intensive-care units at the Hadassah Medical Centre.

Results: 991 infants (7.25/100 admissions) had at least one episode of either bacteraemia or meningitis. The overall incidence rate per 100 admissions was 0.68 for early bacteremia (p for trend=0.71), and 7.5 for late bacteremia with a positive trend (p=0.021). The incidence of early onset GBS bacteraemia decreased significantly (p=0.036). Among late bacteremias, Gram-positive and fungi infection rates were stable (p=0.64, 0.19 respectively), while Gram-negative infection rates showed a significant positive trend (p=0.007), with a peak between the 6th and 11th day. Fungemia was sporadically scattered starting at the 2nd week. Sensitivities to our empirical protocols did not change over the study period.

Conclusions: Our empiric antibiotic protocols are valid despite their use over the last 17 years. This was achieved by the use of a controlled antibiotic program and maintaining high infectious control standards.

[Gram-negative Sensitivity]

[Protocol Sensitivity]