
Abstract:

OBJECTIVE: To measure bacterial contamination rates in blood culture specimens and distinguish sepsis from blood culture contamination in newborn hospitalized patients in a neonatal intensive care unit and to recognize the most commonly isolated bacteria.

MATERIALS AND METHODS: Blood samples of 578 neonates were collected and cultured throughout the year of study (March 2006 to February 2007). Isolated bacteria were identified by traditional biochemical tests. Clinical criteria combined with laboratory data were used to differentiate the contaminated cultures from clinically significant cultures.

RESULTS: Of the 578 neonatal blood culture samples, 78 (13.49%) were positive for bacteria, and 49 isolates (8.47%) were classified as contaminants. Pseudomonas aeruginosa and Staphylococcus aureus were the most common isolates from true bacteremia, and Staphylococcus epidermidis and diphtheroids were the most common contaminants.

CONCLUSION: The blood culture contamination rate in our studied neonatal intensive care unit was high. A variety of measures are recommended for reducing the rate of blood culture contamination to avoid undesirable outcomes associated with blood culture contamination.