
Abstract:

Infection is a well-known complication of central venous access device (CVAD) use, with an incidence of 3-6 bloodstream infections per 1,000 catheter days in children. Prevention of CVAD infections has improved with new strategies including the use of chlorhexidine antisepsis, bundles, maximal sterile barriers for insertion, prophylactic locks, antibiotic impregnated catheters and tunnelling of long-term devices. Despite these strategies, catheter-related bloodstream infections (CRBSIs) continue to be an important health problem. New approaches to diagnosis include differential time to positivity and quantification of blood cultures and molecular diagnostics. The management of CRBSIs includes techniques for line salvage including ethanol, antibiotic, hydrochloric acid, taurolidine and urokinase locks. When these fail, line removal and antimicrobial therapy are recommended.