



“The objective of this study is to characterize the presentation of CLABSIs in pediatric IF and to determine the time to positivity of blood cultures” Chang et al (2015).

Reference:

Chang, M.I., Carlson, S.J., Nandivada, P., O’Loughlin, A.A., Potemkin, A.K., Cowan, E., Mitchell, P.D., Gura, K.M. and Puder, M. (2015) Challenging the 48-Hour Rule-Out for Central Line-Associated Bloodstream Infections in the Pediatric Intestinal Failure Population: A Retrospective Pilot Study. Journal of Parenteral & Enteral Nutrition. January 7th. .

Central line-associated bloodstream infections in pediatric intestinal failure
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Abstract:

Introduction: While parenteral nutrition (PN) has revolutionized the management of patients with intestinal failure (IF), central line-associated bloodstream infections (CLABSIs) remain a leading cause of mortality and morbidity in this population. The objective of this study is to characterize the presentation of CLABSIs in pediatric IF and to determine the time to positivity of blood cultures.

Methods: A retrospective cohort study of children with IF who presented to our institution for

evaluation of a possible CLABSI from January 1, 2012, to December 31, 2012, was performed.

Results: Sixty patients with IF were identified. There were 33 cases of CLABSI in 16 patients, with a rate of 1.5 infections per 1000 catheter days. There were no significant differences in age, growth parameters, or catheter days between patients with or without CLABSI. Fever was documented in 85% of patients with CLABSI. These patients demonstrated an increased percentage of neutrophils and higher C-reactive protein levels compared with patients without CLABSI. The mean time to culture positivity was 13.2 hours, and 97% of cultures were positive within 24 hours.

Conclusion: Our data suggest that most pediatric patients with IF who have CLABSI develop positive cultures within 24 hours, and the absence of fever and leukocytosis does not necessarily indicate the absence of infection. These findings may support clinical practice guidelines in favor of shorter hospital stay when CLABSI is suspected; however, a prospective analysis of CLABSI in this population is recommended to determine the safety and appropriate setting prior to any practice change.

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