

980. Pediatric Patients with Gastrointestinal Conditions and Central Line-Associated Bloodstream Infections

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Background. While standardization of central line insertion and maintenance practices has led to significant reductions in central line-associated blood stream infections (CLABSI), there is concern that not all infections are preventable by current CLABSI prevention bundles. Gastrointestinal (GI) conditions may increase the risk of bloodstream infection by translocation of enteric bacteria due to mucosal barrier

injury (MBI). This study aimed to describe patient and infection characteristics of hospitalized pediatric patients with GI conditions who develop CLABSI.

Methods. A multi-center retrospective cohort study of non-critically ill pediatric patients (excluding oncology patients) with GI conditions and hospital-onset CLABSI (January 2009-June 2012). A pediatric gastroenterologist focus group derived an a priori list of GI conditions that could be associated with MBI. CLABSI surveillance data were supplemented by chart review to identify parenteral nutrition (PN) exposure and GI conditions.

Results. Four sites submitted data on 71 patients with GI conditions and CLABSI. At the time of CLABSI, patients were hospitalized on surgery (n = 60, 85%), GI (n = 6, 8%) and rehabilitation (n = 5, 7%) units. Most patients had >1 MBI conditions (n = 64, 90%). The most common MBI conditions were gastroschisis/omphalocele (n = 26, 37%), necrotizing enterocolitis (n = 18, 24%), and motility disorder (n = 9, 13%). Nearly all patients (n = 67, 94%) had PN exposure within 7 days of infection. Enteric organisms, including *Enterobacteriaceae* (25%), yeast (14%), *Enterococcus spp.* (13%), and polymicrobial with an enteric organism (11%), accounted for 62% of CLABSI.

Conclusion. Many pediatric patients with GI conditions who develop CLABSI have a history of intra-abdominal surgery for neonatal-onset GI conditions. While most CLABSI in these hospitalized GI patients were due to enteric organisms, approximately one-third were non-enteric and thus might be prevented through enhanced adherence to existing CLABSI prevention bundles. Novel prevention practices might be needed to prevent CLABSI due to enteric organisms in patients with MBI.

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