

Study of bloodstream infections reveals inconsistent surveillance methods and reporting

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A new study looking at how hospitals account for the number of pediatric patients who develop catheter-associated bloodstream infections (CA-BSIs) found substantial inconsistencies in the methods used to report the number of patients who develop these infections.

The study, conducted by the National Association of Children's Hospitals and Related Institutions Pediatric [Intensive Care Unit](#) Focus Group, appears in the October issue of the [American Journal of Infection Control](#), the official publication of the Association for Professionals in Infection Control and Epidemiology (APIC).

[Bloodstream infections](#) are the most common hospital-associated infection (HAI) in pediatric intensive care units (PICU) and a significant source of in-hospital deaths, increased length of stay and added medical costs. Both adult and pediatric patients who have [catheters](#) inserted into their blood vessels face increased risk of an infection developing along the invasive plastic devices which can become life-threatening as they spread into the bloodstream.

The study team, led by Matthew Niedner, MD, Assistant Professor of Pediatrics and Communicable Diseases, Mott Children's Hospital in Ann Arbor, Michigan, looked at surveillance practices at 10 PICUs.

"While 100% of surveyed infection control practitioners in the study

indicated using the CDC's definition for CA-BSI, strictly speaking, none actually do," said Niedner, who authored the article. "This has significant implications in the era of mandatory public reporting, pay-for-performance and Medicare's 'never events.'" (The Centers for Medicare & Medicaid Services lists CA-BSIs as a "never event," and therefore no longer reimburses for such hospital-acquired infections.)

In addition to the analysis of the inconsistent surveillance methods, the study also showed that more aggressive surveillance efforts correlate with higher CA-BSI rates. In the words of the author, this suggests "that the harder one looks for CA-BSIs, the more likely they are to find them."

The author observes that the study's findings offer "a compelling opportunity" for hospitals to improve their CA-BSI surveillance as a means to promote valid comparison among institutions. The author points out that surveillance variability complicates comparison of CA-BSI rates between hospitals, which has implications for the public reporting of hospital infection rates. Current publicly reported data show that some hospitals report a four-fold difference in CA-BSI infection rates, according to the study. The author notes that effective quality improvement requires reliable measures of performance.

The author hopes this work spurs further research into improving hospital surveillance for CA-BSI. The author concludes: "Improved understanding of this variability and awareness of the potential consequences provides an opportunity and rationale to define CA-BSI surveillance best practices and work toward standardizing them across institutions."

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