Catheter-related bloodstream infections examined in home parenteral nutrition patients

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Catheter-related bloodstream infection is the most prevalent and severe complication for patients who receive parenteral nutrition therapy at home. A new study by researchers at Aalborg University in Denmark examined whether environmental factors have any influence on the amount of time before a first infection.

The study published today in the OnlineFirst version of the Journal of Parenteral and Enteral Nutrition (JPEN), the research journal of the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.), focused on tunneled vascular access devices and peripherally inserted central venous catheters (PICCs), the two most commonly used catheters. Factors such as smoking, catheter management by a home care nurse, colectomy with stoma, number of infusion days per week, and C-reactive protein values at catheter insertion day were investigated.

Adult patients suffering from intestinal failure and receiving home parenteral nutrition were included. A total of 295 catheters, including 169 tunneled vascular access devices and 126 PICCs, were used in 136 patients.

The study found that using a PICC for one additional infusion day per week significantly reduced the amount of time before a first bloodstream infection. It also found that using a tunneled vascular access device managed by a home care nurse increased the mean incidence of
such infections. No other factors had any significant impact.

Based on these results, the study authors recommend revisions to current home care guidelines, including using PICCs only for short-term home therapy and when few infusion days per week are needed, and that management of tunneled vascular access devices by home care nurses should be further specialized.

Provided by American Society for Parenteral and Enteral Nutrition

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