The effect of Ethanol lock therapy on Catheter-Related Bloodstream Infection (CRBSI) rates

Abstract:

BACKGROUND: Catheter-related bloodstream infection (CRBSI) is the most serious long-term infectious complication of long-term home parenteral nutrition (PN). Ethanol is being used more commonly as a catheter locking solution in the home PN setting for prevention of CRBSI; however, no current literature reports the use of ethanol lock (ETL) in skilled nursing facility (SNF) patients.

METHODS: The authors evaluated the number of hospital readmissions for CRBSI and length of stay between SNF (not receiving ETL) and home patients (receiving or not receiving ETL) receiving PN or intravenous fluid therapy.

RESULTS: SNF patients had a significantly longer length of stay (LOS) for CRBSI hospital admissions compared with patients receiving PN at home with or without ETL (P < .001; 16 vs 8 vs 8 days). There was no LOS difference for CRBSI between home patients with or without ETL. Home PN patients not receiving ETL were more likely to have a CRBSI from Staphylococcus sp (48% vs 27%; P = .015), whereas SNF PN patients not receiving ETL were more likely to have a CRBSI from Enterococcus sp (16% vs 3%; P = .004).

CONCLUSION: Despite different causative organisms and medical acuity likely affecting the differences observed in LOS, the SNF population is another setting ETL can be used to prevent CRBSI.