

“Catheter-related complications were extremely common in patients receiving HPN. Healthcare providers caring for individuals who require home TPN should be aware of risk factors for complications” Durkin et al (2015).

Reference:

Durkin, M.J., Dukes, J.L., Reeds, D.N., Mazuski, J.E. and Camins, B.C. (2015) A Descriptive Study of the Risk Factors Associated with Catheter-Related Bloodstream Infections in the Home Parenteral Nutrition Population. Journal of Parenteral & Enteral Nutrition. 16th January.

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Abstract:

Background: Home parenteral nutrition (HPN) is increasingly used for nutrition support after patients are discharged from the hospital. Catheter-related bloodstream infections (CR-BSI) are a common and potentially fatal complication of HPN. The risk factors for development of CR-BSI in the outpatient setting are poorly understood.

Methods: We conducted an observational, retrospective study of 225 patients discharged from Barnes-Jewish Hospital on HPN between January 1, 2007, and December 31, 2009. HPN complications were defined as any cause that led to either premature discontinuation of HPN therapy or catheter replacement. CR-BSI events were identified by provider documentation. We calculated the overall complication rate and the complication rate specifically due to CR-BSI. Backward stepwise Cox regression analyses were used to assess for independent predictors of catheter-related complications.

Results: In total, 111 of 225 patients (49%) developed complications while receiving HPN (incidence = 5.06 episodes/1000 catheter days). Sixty-eight of 225 patients (30%) required catheter removal for CR-BSI (incidence = 3.10 episodes/1000 catheter days). Independent predictors of line removal specifically due to infection included anticoagulant use, ulcer or open wound, and Medicare or Medicaid insurance. The following risk factors were associated



with catheter-associated complications and/or CR-BSI: the presence of ulcers, the use of systemic anticoagulants, public insurance (Medicare or Medicaid), and patient age. Independent predictors of line removal for any complication included age and anticoagulant use.

Conclusion: Catheter-related complications were extremely common in patients receiving HPN. Healthcare providers caring for individuals who require home TPN should be aware of risk factors for complications.

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