



Our aim was to determine whether the routine institution of ELT decreased the incidence of CRBSI compared with historic controls at Emory University Hospital (EUH) in Atlanta, Georgia, USA” Gundogan et al (2019).

Abstract:

BACKGROUND: The use of central venous catheter (CVC) access for home parenteral nutrition (HPN) is associated with catheter-related bloodstream infections (CRBSIs). There are limited data on the use of ethanol lock therapy (ELT) to prevent CRBSI in adult HPN patients. Our aim was to determine whether the routine institution of ELT decreased the incidence of CRBSI compared with historic controls at Emory University Hospital (EUH) in Atlanta, Georgia, USA.

METHODS: EUH medical records of adult HPN patients discharged with a tunneled, silicone CVC on ELT were retrospectively studied during a pre-hoc determined 14-month observation period (n = 87; 13,386 catheter days) and compared with clinically similar HPN patients from the same institution before institution of the ELT protocol for all appropriate patients. The ELT protocol involved instilling 2 mL of 70% ethanol into each catheter lumen daily after the HPN cycle, following initial flushing with normal saline.

RESULTS: Only 5 of 87 patients (5.7%) who received ELT were diagnosed with a CRBSI (0.45/1000 catheter days) during observation. We compared these data with our previously published clinically matched patient population from EUH (n = 22) receiving HPN via a

silicone CVC without ELT. Of these historical controls, 45.5% were diagnosed with 1 or more CRBSIs (8.7/1000 catheter days) during observation ($P < .001$ vs the current ELT cohort). CONCLUSIONS: In this retrospective study with historical controls from the same academic center, institution of ELT in adults requiring HPN via a silicone CVC was associated with a marked (19-fold) reduction in CRBSI.

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Reference:

Gundogan, K., Dave, N.J., Griffith, D.P., Zhao, V.M., McNally, T.A., Easley, K.A., Haack, C.I., Galloway, J.R. and Ziegler, T.R. (2019) Ethanol Lock Therapy Markedly Reduces Catheter-Related Blood Stream Infections in Adults Requiring Home Parenteral Nutrition: A Retrospective Study From a Tertiary Medical Center. *Journal of Parenteral and Enteral Nutrition*. August 27th. doi: 10.1002/jpen.1698. .

