Major Article

Central venous catheter infections in home parenteral nutrition patients: Outcomes from Sustain: American Society for Parenteral and Enteral Nutrition’s National Patient Registry for Nutrition Care

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Background

Evidence-based Practice

Sustain

A.S.P.E.N. national patient registry

Voluntary participation by providers

Prospective, observational data collection

Adult and pediatric data

Resources

Consumer Preference

Evidence
To describe central line associated blood stream infections (CLABSI) for home parenteral nutrition patients followed in the Sustain registry from 2011–2014
Demographics

1046 adult and pediatric patients

21 of 29 were hospital based outpatient sites

83% of sites consecutively enrolled HPN patients in Sustain registry
Results—Demographics

10.7% experienced 1 or more CLABSI
Overall CLABSI rate 0.87

Children 1.17 vs Adults 0.35*
Medicaid 1.0 vs Medicare 0.38 vs Private 0.39*
Males 0.69 vs Females 0.38*
Black 0.91 vs White 0.41 vs Other 0.71*

#Unless otherwise noted rates reported as per 1000 PN days
* Statistically significant p less than .05
Results—Catheter Characteristic

Catheter Type*
PICC 0.41 vs Tunneled 0.51 vs Port 0.66

HPN duration*
<90 days 0.67 vs 91–180 days 0.67
vs 180–365 days 0.68 vs >365 days 0.39

Lumen*
Single 0.38
Double 0.57
Triple 0.0

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* Statistically significant p less than .05
Results—Catheter Care

Use of Ethanol Lock*
- No 0.48
- Yes 0.54

Use of Anti–infectives
- No 0.50
- Yes 0.51

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* Statistically significant p less than .05
Limitations and Conclusions

Limitations
- Observational Study
- Combined data of potentially dissimilar groups
- Voluntary data set

Conclusions
- CLABSI are and continue to be a concern for HPN
- Data suggest demographic, clinical, catheter characteristics may increase CLABSI risk
- Need for registry data to describe and understand risks of HPN therapy
- Need for prospective randomized trials
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Questions?