Relationship Between Catheter Related Bloodstream Infection and Bathing Practices in a Home Parenteral Nutrition Population

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Introduction

- Some health care providers believe that soap and water contamination during bathing increases the risk of catheter related bloodstream infection.
 - No published evidence supports this belief

Aim of Study

- To determine if routine showering or bathing increases the risk of catheter related bloodstream infection
- Compare showering and bathing with catheter related bloodstream infection
- To determine if protective covering reduces the risk for catheter related bloodstream infection

Methods

- Multiple choice survey on individual catheter care practices mailed to all consumers from one home infusion provider
- Several questions addressed individual bathing practices
- Responses were correlated with 3 years of these consumers' catheter related bloodstream infection rates

Results

78 consumers responded

Divided into 2 groups

- Tub bath group = 15 consumers (19%)
- Shower group = 63 consumers (81%)

Demographic results

Group	Number	Female	Age	Years HPN	3 yr CRBSI Rate
Tub	15 (19%)	66%	47 (2-65)	15 (2-32)	1.09/1000 days
Shower	63 (81%)	71%	49 (2-81)	16 (0.5–33)	1.1/1000 days

Results, continued.....

- Protective covering applied to exit site for protection
 - Commercially available water proof dressings
 - Layered transparent dressings
 - Plastic wrap with waterproof tape
- Tub group = 2 (13%)
- Shower group = 22 (35%)

Results: CRBSI Rate comparison per 1000 catheter days



Conclusions

- Tunneled catheters may remain in place for many years necessitating routine bathing for general health and well being
- 78 home parenteral nutrition consumers responded that they bathe or shower with a tunneled access device
- Majority of consumers did not apply a protective covering

Conclusions

- Estimated infection rates in home parenteral nutrition consumers in North America are 0.44 - 4.2/1000 catheter days
- Both groups maintained acceptable rates with either type of bathing practice
- Adding a protective covering did not significantly impact the rates

Questions???

