
Marianne Opilla RN, John Siepler PharmD, Tom Diamantidis PharmD, Rodney Okamoto RPh, Reid Nishikawa PharmD
Nutirshare, Inc., Elk Grove, CA
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

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Female</th>
<th>Age</th>
<th>Years HPN</th>
<th>3 yr CRBSI Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tub</td>
<td>15 (19%)</td>
<td>66%</td>
<td>47 (2–65)</td>
<td>15 (2–32)</td>
<td>1.09/1000 days</td>
</tr>
<tr>
<td>Shower</td>
<td>63 (81%)</td>
<td>71%</td>
<td>49 (2–81)</td>
<td>16 (0.5–33)</td>
<td>1.1/1000 days</td>
</tr>
</tbody>
</table>
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

- **Tub**:
  - Covered: 1.8
  - Uncovered: 1.12

- **Shower**:
  - Covered: 1.3
  - Uncovered: 0.97

Legend:
- **Covered**
- **Uncovered**
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???