Does the Increased Availability of Alcohol Impregnated Caps and Alcohol Swabs Increase Compliance to Proper Line Care?

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**Background**
- IVs are inserted in 30-80% of patients and are usually required for admission.
- Catheters in the veins are the number one risk for blood stream infections. These can develop within six days of insertion and progress to bacteremia by 17.
- Safer practice including placing only when necessary, using alcohol impregnated caps, proper flushing, scrubbing the hub for at least 10 seconds before use and timely removal can decrease these infections.
- Education of proper line care practices has been shown to increase compliance to these practices.

**Practice Change**
- Increase the availability of alcohol impregnated caps and alcohol swabs to registered nurses (RNs) improve compliance rates to proper line care.

**Methods**
- Administered anonymous paper pre-surveys to RNs.
- Presented educational content to RNs via posters around the unit.
- Document the use of caps in ten rooms randomly.
- Increase the availability of alcohol impregnated caps and alcohol swabs by placing them in more accessible areas for RNs to reach.
- Document the use of caps in ten rooms randomly after change in location.

**Survey Results**

**Survey Results**

<table>
<thead>
<tr>
<th>On a scale of 1-5, 1 being the lowest importance, 5 being the highest importance, how would you rate capping the end of PIV line/IV tubing?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Survey</td>
<td>9%</td>
<td>9%</td>
<td>36%</td>
<td>18%</td>
<td>27%</td>
</tr>
<tr>
<td>Post-Survey</td>
<td>9%</td>
<td>0%</td>
<td>11%</td>
<td>11%</td>
<td>77%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you always cap your PIVs/IV tubing?</th>
<th>Pre-survey Yes</th>
<th>Pre-survey No</th>
<th>Post-Survey Yes</th>
<th>Post-Survey No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Survey</td>
<td>63%</td>
<td>37%</td>
<td>66%</td>
<td>33%</td>
</tr>
<tr>
<td>During med pass do you bring alcohol caps with you to your patient room?</td>
<td>90%</td>
<td>10%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Do you believe alcohol filled caps are located in convenient places?</td>
<td>72%</td>
<td>28%</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>If you have an IV pump in the room do you keep alcohol filled caps hanging on the pump?</td>
<td>81%</td>
<td>19%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>When you see a line that is not capped, do you take the time to put the alcohol cap on the end?</td>
<td>81%</td>
<td>19%</td>
<td>77%</td>
<td>23%</td>
</tr>
</tbody>
</table>

**Summary/Discussion**
- **Next Steps Include:**
  - Increase availability of alcohol caps and swabs to RNs such as stocking them in patient rooms in an infection-safe manner.
  - More education on the importance of proper line care.
  - Track patient outcomes and infection rates and compare them to past infection rates before the implementation of the above steps.

**Feedback Listed on Survey:**
- “Keep them (caps and swabs) stocked in patient rooms.”
- “Rounding/Auditing by managers or charge or a team on patients with PIV access to assess if their capped or not.”
- “More education.”

**Conclusion**
- Each alcohol cap costs roughly $1.90. Many RNs are concerned about the cost therefore elect to only use them on central lines.
- RNs on P6 acknowledge the importance of proper line care however the availability of supplies is a large factor in compliance.
- Access to supplies is the key in increasing compliance.

**References**
