WoCova
5th World Congress on Vascular Access
Impact Assessment of Stabilization Devices on CLABSI

Abstract code as used in program: O-32
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Disclosure

Mark Rowe
Past-President, Association for Vascular Access (AVA)
Employer: University of Arkansas for Medical Sciences (UAMS)
Independent Consult/Speaker:
- Interrad Medical, Inc.
- Medical Components, Inc.
- Ethicon, Inc.
- FujiFilm SonoSite, Inc.
- Becton Dickenson and Company, Inc.
- 3M, Inc.
Disclosure

Jocelyn Hill

AVA Board of Directors, Treasurer
CVAA National Past President
Nurse Educator, IV Therapy Vascular Access and Home Infusion Programs

Enumeration from:

- AngioDynamics, Inc.
- BD Medical
- Cook Medical
- Fresenius Kabi
- Interrad Medical
Our Story at
University Arkansas Medical Sciences

- 500+ all Private beds
- Only level 1 Trauma center in state
- Only high risk birth center in state
- 7 Institutes on campus
- Patient visits in 2017
  - ED Visits  60,861
  - Surg Cases  19,262
  - Outpatient Visits  485,121
  - Infusion Visits  44,655  (122.3/day)
- Vascular Access 2017:
  - 2603 Vascular Access Procedures
    - 1748 PICC’s
    - 668 Ultrasound PIV’s
    - 187 Chest Procedures
Introduction

- UAMS Vascular Access Team – 4 practitioners  101 years Nursing Experience; 71 years VA Experience combined
- Practice between UAMS VAT and IR groups differ by stabilization device
- UAMS VAT hypothesized that the SESD reduces risk of CLABSI compared to AESD due to:
  - Increased stability
  - Reduction of migration
  - Reduction of dislodgment requiring replacement
  - Overall ability to disinfect the site 360 degrees
Methods

• Retrospective data analysis of 3 years of PICC insertion data
• Routinely track CLABSI per NHSN requirements
  – Overall institutional CLABSI is very low 0.61 per 1000 catheter days in 2017
  – Data assessment initially determined that 0 CLABSI were insertion related
  – No other care and maintenance intervention occurred between 2015-2017
• Analysis of CLABSI was segmented by:
  – Device Type
  – Inserter Type
  – Securement Type
CLABSI per 100 Securement Devices

Relative Risk Reduction

<table>
<thead>
<tr>
<th>Year</th>
<th>SE SD rate/100 devices</th>
<th>AESD rate/100 devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1.2</td>
<td>0.76</td>
</tr>
<tr>
<td>2016</td>
<td>0.76</td>
<td>0.26</td>
</tr>
<tr>
<td>2017</td>
<td>0.26</td>
<td>0.17</td>
</tr>
<tr>
<td>3 Year Mean</td>
<td>0.49</td>
<td>0.24</td>
</tr>
</tbody>
</table>

-0.44
-0.50
-0.49
Conclusion

• Initial data confirms current hypothesis
• Strong early statistical indication SESD reduces the risk of CLABSI vs AESD
  – Consistent Relative Risk Reduction with the SESD group
• On-going statistical analysis assessing correlations to sources and time to infection
Questions? Thank You