Key Performance Indicators for Vascular Access Teams

Are Vascular Access Teams A Thing of the Past?

Presented by
Gwenda Guerin, RN CRNI
Objectives

- Identify and discuss key performance indicators for the vascular access team
- Discuss the process for analyzing the key indicators
Role of the Vascular Access Team

• Defining the role of the IV Team
• What was the main objective
• How to accomplish this objective with the limitations placed on the IV Team
• Cost reduction verus cost revenue
Goals

• Decrease use of PICCs per 1000 patient day to 8 per day
• Next goal was to decrease to # to 5 per day
• Improve patient satisfaction
• Improve physician satisfaction
• Improve nursing satisfaction
History

• IV Team was created August 2012 to perform difficult venipuncture's
• Assess central line dressings only
• IV Team expanded to Dressing changes on October 1, 2014 with some exceptions
IV Team Timeline

• Current: IV start skills competency in new employee clinical orientation

• March 29: Complete job description, policy and education roll out

• April 10: Proposal to Medical Executive Committee.

• Present policy to P&P pending MEC approval
continued

• May 2: FTE approval and job posting (1 FT day and 2 part time, 1 full time evening and 2 part time. Cover Monday-Sunday = 4.2 FTE
• May: begin interviews
• May 21: Roll out education to physicians and staff
• June: Orientation for the team
• July 1: available
IV Team Service

- Criteria for consulting IV Team developed
- Developed plan for IV Team to prioritize staff calling for patients IVs
IV Team

• Developed PIV insertion with Ultrasound policy
• Developed competencies for IV team
  – PIV insertion with ultrasound
  – Central Line dressing
  – Hickman catheter repair
  – Declotting
Resources

• How INS was helpful with developing competencies and the team
• Britt Myer with Duke University
• PICC Excellence
Expanded goal to incorporate NPSG.07.04.01

• Use proven guidelines to prevent infection of the blood from central lines
  – Trial began with Oncology and MICU to have a dedicated team change central lines
  – Purpose to decrease CLABSIs
Challenges

• Limitation of staff to cover >625 beds
• Education for staff
• No office or dedicated space
• Learning curve for use of ultrasound
Paper tracking Began

- Employee manually entered info to spreadsheet
- Average 4 hours per week to input data into spreadsheet
IT Department Developed

<table>
<thead>
<tr>
<th>Shift</th>
<th>Unit</th>
<th>Employee</th>
<th>Type</th>
<th>Patient ID</th>
<th>Site</th>
<th>Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>28M</td>
<td>Querin. Gervens R.</td>
<td>Select</td>
<td>812713967462</td>
<td>Select</td>
<td>Select</td>
</tr>
</tbody>
</table>

[IV Tracker - Windows Internet Explorer]

[Screen capture of Huntsville Hospital IV Tracker interface]
Paper documentation of Central Line Dressing

Additional staff needed to enter into spreadsheet

<table>
<thead>
<tr>
<th>Room #</th>
<th>Name:</th>
<th>Type of device</th>
<th>Tubing labeled</th>
<th>Was Dsg. Changed on admission</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tunneled</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implanted</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PICC</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Temp VAD</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dialysis</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tunneled</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implanted</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PICC</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Temp VAD</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dialysis</td>
<td>Yes [ ]</td>
<td>[ ] No [ ]</td>
<td></td>
</tr>
</tbody>
</table>

Date:__________
Time:__________
Unit:___________
Room #____________
Name:______________

Type of device
Tunneled □ Implanted □ PICC □ Temp VAD □ Dialysis □

Tubing labeled
Yes □ No □

Blood Return
Yes □ No □

Correct dsg w/Biopatch
Yes □ No □

Was Dsg Changed on admission
Yes □ No □

Comments

IT Developed with help of my manager

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Huntsville Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Monthly Patient Days By Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>FYE 6/30/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dept #</td>
<td>Department Name</td>
<td>Jul</td>
<td>Aug</td>
<td>Sept</td>
<td>Oct</td>
<td>Nov</td>
<td>Dec</td>
</tr>
<tr>
<td>5</td>
<td>Adult Days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Monthly Tracking (goal was to achieve less than 8 PICCs per day)

<table>
<thead>
<tr>
<th>Month</th>
<th>Total</th>
<th>Rate/1000 pt days</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 2011</td>
<td>298</td>
<td>18.62</td>
</tr>
<tr>
<td>August 2012</td>
<td>267</td>
<td>16.98</td>
</tr>
<tr>
<td>August 2013</td>
<td>188</td>
<td>12.26</td>
</tr>
<tr>
<td>August 2014</td>
<td>126</td>
<td>8.2</td>
</tr>
<tr>
<td>August 2015</td>
<td>118</td>
<td>7.5</td>
</tr>
<tr>
<td>April 2016</td>
<td>102</td>
<td>5.6</td>
</tr>
</tbody>
</table>
Education

• Developed educational fliers for staff
• Incorporated best practice, updates to policy and how team
• IV Team providing education as they make rounds
• Dressing
  – Caps
  – Flushed
  – Declot
  – Curos
CLINICAL NURSING PRACTICE

Techniques to Decrease CLABSIs:

- Hand hygiene is the #1 way to prevent the spread of infection.
- SCRUB THE HUB 15 seconds before accessing any CVL port!
- All central line dressings are removed and site assessed (including blood return) within 24 hours of admission. The catheter site is changed per policy; Biopatch applied and a HH standard dressing applied.
- MaxPlus Injection Caps must be changed with each central line dressing change. Exception is the yellow Tego caps found on Dialysis catheters.
- The Dialysis and Ash-Split Catheter Dressings are changed by the unit staff caring for the patient. Dialysis staff does not routinely change the sterile dressing but will apply the Tego caps.
- If the integrity of the Central Line Dressing become loose, do not secure with more tape, it is considered compromised and can increase the chance for a CLABSI. Change the dressing according to policy.
**NURSING UPDATE**

Starting Now!

1. **CENTRAL LINE DRESSING CHANGES**
   - The IV team will perform routine Central Line Dressing changes (every 7 days).
   - The patient's nurse needs to change all PPT dressing (including the cap).
   - This is ONLY for units the IV Team currently serves.
   - Please review the Central Line Dressing Change Policy for a refresher on changing a dressing.
   - [Image of central line dressing change]

2. **DAILY CHG BATH**
   - All ADULT patients with central lines will receive one CHG bath daily.
   - [Image of patient receiving CHG bath]

3. **ALCOHOL CAPS COMING SOON/OTHER INITIATIVES**
   - Cozy alcohol caps for all Central Line ports are coming soon (Feb 2nd).
   - Before accessing central lines:
     1. Perform hand hygiene
     2. Wear mask and gloves
     3. Scrub the hub
     4. Educate and involve the patient in care (see patient education handout)
   - [Image of cozy alcohol cap]

Be on the lookout for future updates!

Huntsville Hospital
Example of Competencies

**2016 Huntsville Hospital Competency Assessment Form**

<table>
<thead>
<tr>
<th>Employee's Name</th>
<th>Title</th>
<th>RN</th>
<th>Unit</th>
<th>IV Team</th>
</tr>
</thead>
</table>

**COMPETENCY**

**Population Specific**

- Adult
- Pediatric
- Neonate

**Method of Validation**

- Observational
- Simulation
- Practical

**Preparation/Recording**

- Calculation
- Signature/Date

**Comments/Remediation Statements**

**COMPETENCY**

- **Current IV Care**

  - The employee will demonstrate competency in the administration of IV fluids, parental solutions, and medications.

- **Pain Management**

  - The employee will demonstrate competency in the administration of pain management techniques.

**COMPETENCY**

- **Ultrasound-Guided IV Placement**

  - The employee will demonstrate competency in the performance of ultrasound-guided IV placement.

<table>
<thead>
<tr>
<th>Ultrasound-Guided IV Placement</th>
<th>Practicum</th>
<th>Clinical</th>
<th>Clinical</th>
<th>Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency Criteria</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrated ABDT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify patient by use of two identifiers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain procedure to patient and obtain verbal consent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performed hand hygiene and dons non sterile gloves</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position ultrasound for viewing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applies tourniquet and ultrasound gel to insertion area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifies appropriate vein</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Releases tourniquet, grasps the appropriate sterile technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Obstetrics) x 30 seconds; (2 min. If infant/child)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allows to dry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removes excess hair prior to venipuncture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of disposable clippers or single use scissors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizes supplies for venipuncture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reapply tourniquet and position arm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dorsiflex prepared site</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cover ultrasound probe with sterile transparent dressing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place sterile gel at insertion site</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locate vein using center mark of transducer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insert catheter using sterile technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirm catheter placement with pulsatile blood return</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Point Prevalence

• Done
  – 3M
  – Carefusion
  – Bard

• Data has shown the team is making a difference
Healthy Competition

• Tracked monthly IV starts by each team member.

• Brian Buchmann, RN Nurse Manager shared info with each member. Full of compliments(former NM)

• Average IV line started per 1000 patient days in April 2015 was 938. Able to track with use of ultrasound

• Daily average 7a-7p 31.7 /7pm-7a 17
Progress

• Increased prn staff to assist with dressing changes in evening. Average 98/day central lines

• Assist with CLABSI Task Force

• JAN/Feb 0 CLABSIs

• Dedicated office space

• Dedicated cart with dressing supplies and attached computer

• Two ultrasound machines
• New focus under new management
• Add pics of IV team/cart/office
• 2 additional full time staff
Our staff love the IV Team!

Administration is overjoyed that the IV Team has played a role in decreasing use of PICCs and CLABSIs
Our Team
Questions