TL10EO-2 PROCESS IMPROVEMENT TEAM Date initiated: 7/2011

Proposal to pilot an *Early Vascular Access and Care Intervention* in the Penrose Critical Care Unit for 3 months:

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| **F** | Find A Process To Improve: |
|  | Despite implementation of a PICC team, guidelines on vascular access care and education about proper vascular access dressing changes, CLABSI persists. |
| **O** | Organize A Team: |
|  | Debbie Avery RN, Jeanne Fox RN, PICC Nurses, Kathy Guy RN, Director Professional Resources, Rochelle Salmore RN, Chair, Evidenced Based Practice Council |
| **C** | Clarify Knowledge of the Current Process: |
|  | 1. CDC and APIC provide national evidence based practice guidelines for care of central lines
2. PSFHS guidelines (Peripherally Inserted Catheter, Central Line Bundle, and IV Therapy Through a Central Venous Catheter) incorporates these guidelines
3. All nursing staff have access to the guideline and have received education on care of central lines through annual skills review and 1:1 instruction
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| **U** | Understand Variation |
|  | 1. Patients receive multiple failed IV attempts
2. Improper IV devices may be used for the treatment the patient is receiving.
3. Few usable veins are left when PICC is called
4. Dressings are not changed per guidelines
5. CLABSI continue
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| **S** | Select An Improvement Strategy: |
|  | The *Early Vascular Access Team* will * Monitor all PIV sites, Central Lines & PICC Lines for infections and complications in CCU on the days they are working , M-Sat.
* Change all Central Line and PICC Line dressings weekly and as needed to ensure protocol is followed.
* Suggest to Dr/Nurse that peripheral IVs be removed when patient has a central line.
* Request nursing staff attempts no more than 2 peripheral IV sticks during the hours of 0800-1800, M-F.
* Collect data. ( Any patient that has their dressing changed, line discontinued and another started by other than a PICC nurse will be excluded from the study.)
* Educate staff via classes and 1:1 on CDC and APIC guidelines as well as harmful effects of a CLABSI
* Survey staff before pilot and after 3 months of the trial for satisfaction.
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| **P** | Plan The Pilot Improvement And The Data Collection |
|  | The pilot will begin on 9/5/11. There will be a .5 nurse working 5 days to make the rounds in CCU. On the weekend or days when there is only one PICC nurse scheduled, the PICC nurse will make the rounds in CCU.PICC nurses will collect data re: the central lines and peripheral lines.Infection reports will be reviewed monthly. |
| **D** | Do The Pilot Improvement And Collect The Data |
|  | * The first day of this three month trial, the nurse will review all Critical Care patient charts for IV medications; ask nurses about patient’s current IV status
* Assess all Central Line and PICC Lines on Critical Care Unit patients for evidence of infection and proper dressing in place per policy.
* Daily assessment of all new admits/transfers for IV status and make recommendations as needed.
* Request the pharmacy generate a daily medication list of all patients in the Critical Care Unit that are prescribed Vancomycin.
* Gather the following data on each patient: Dx, age, LOS, type of line both central and peripheral with date of insertion and location, date of dressing change.
* Summarize the data.
* Gather staff satisfaction data
* Provide education to staff on effects of CLABSI .
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| **C** | Check The Results Of The Implementation |
|  | * **The pilot was completed in 12/6/2012**
* **There were no central line infections in CCU during that time.**
* **In-services were done in CCU re: CLABSI- both 1:1 and in staff meetings**
* **Flyers were posted in the nursing charting areas re: the rounds by PICC nurse**
* **PICC nurses frequently were able to get peripheral IVs d/c when central line was in place.**
* **PICC nurses would recommend removal of Central Line when not needed.**
* **Staff satisfaction survey done post trial was positive from the CCU staff.**
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| **A** | Act To Hold The Gain And Continue Improvement |
|  | * It was decided to continue with rounds in CCU and there were no infections in the next 3 months.12/2011-3/2012.
* 1/2012 A part time nurse was hired to assist with the rounds.
* 1/2012 SFMC PICC nurse began making rounds on all central lines in CCU and medical/ surgical floors .
* 3/12 Director of Professional Resources and CNO developed a staffing plan to increase coverage for management of central lines throughout Penrose hospital
* 5/12 It was identified through chart reviews that the nurses were not documenting in IV site care intervention that the daily eval of the central line patency was done. The nurses were instructed to do this documentation daily to show they had actually seen the patient. They were also asked to follow up on the need for cath flo with the unit nurse to ensure it was given.
* 7/12 CNO received approval from Finance to increase FTE’s to cover the hospital to help reduce central line infections
* 9/12- 10/12 Hiring began for new staff- 2.7 FTEs needed. Orientation completed by Oct 31/2012
* 10/12 IV nurses began making rounds on all the inpatient units at PH to change dressings on central lines and daily checks for flushing and blood draw
* All central line dressing changes are now done every 7 days by the team.
* The units are utilizing the IV nurses to start difficult IVs.
* 11/12 The Vascular Access Team started working 7 days a week with one PICC nurse and 2 IV nurses on M-F and one PICC nurse on at SFMC. S-S there is one PICC nurse and one IV nurse covering both hospitals
* The Central Line Committee drills down on any central line infections to see if there are trends or practices that need to change.
* IV therapy via a peripheral IV policy was updated to allow for only 2 IV attempts and then contact the PICC nurse.
* IV nurses are continuing to provide education to staff on their assigned units.
* 2/13 The IV nurses will receive competency training in using the ultrasound to start difficult peripheral IVs.
* 2013 Central line care will be included in the skills review for the inpatient units
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