Reducing CLABSI by Nursing Driven Interventions in the PCICU
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Background
The cardiac population requires central venous access for their entire hospitalization, often months. These lines are utilized for hemodynamic monitoring, vasoactive/caustic medications, parenteral nutrition, and frequent labs. Site location is limited due to vascular abnormalities and future surgical interventions. Due to these circumstances, the health care team must be diligent in preventing central line associated blood stream infections, CLABSI. On average each CLABSI costs $46,000 to $70,000. The PCICU is a driving force behind nurse lead initiatives that help identify, address and roll out CLABSI reduction interventions hospital wide. These include K-Cards, CHG Bathing and Coloplast barrier strips. The PCICU’s CLABSI goal is ZERO.

Kamishibai Cards (K-Cards)
- Hospital wide piloting unit partnering with Pediatric Cardiology: July 2017
- Standardized data collection tool to help improve bundle compliance
- Overall goal to create a culture of providing peer to peer teaching and coaching on a daily basis
- Identifies barriers and encourages ideas for improvement
- Expanded unit and hospital wide leadership involvement in performing K-Cards
- True transparency of results to help drive accountability and improvement

Challenge and Obstacles
- High acuity patients paired with challenging staffing, travelers, EPIC rollout, less experienced staff and overall lower median years of critical care nursing experience are parallel with higher CLABSI rates, lower K-Card completion, and lower system process interventions.

Outcomes/Findings
- Overall CLABSI Reduction: FY18: 7, FYTD19: 4
- Combination of CHG Bathing and Coloplast Barrier Strips helped eliminate and change Pathogens
  - E. Coli (FY15 Avg: 2.5, FYTD19: 0)
  - Staphylococcus Aureus (FY15 Avg: 3.75, FYTD19: 0)
  - Enterococcus Faecalis (FY15 Avg: 5.25, FYTD19: 2)
- Increased staffing retention, Unit Median Years of Experience: 3.5-4 years
- Future Initiatives
  - Pilot unit for CHG Bathing in the less than 2 month population
  - Collaboration and involvement in creating hospital wide job instruction sheets and videos for CVL/PICC dressing changes and accessing a CVL
  - Per Solutions for Patient Safety (PS) recommendations, CHG application will be added to CLABSI Bundle

CHG Application
Chlorhexidine Gluconate 2% is a topical antiseptic application that significantly reduces the number of microorganisms on the skin. Successfully trialed for 8 months in the PCICU and PCARD prior to hospital wide rollout. Every patient with a CVL that meets criteria receives a CHG application with their daily bath.

Pathogen Transitions

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Acknowledgments
John David Hughes, MMHC, BSN, RN, NE-BC
Manager, Pediatric Cardiac ICU
Jackie Smith, MSN, RN, CIC
Infection Prevention
Andrew Harold Smith, MD MSCI MMHC
Associate Professor of Pediatrics Attending Physician & Medical Director of Cardiac ICU & Value-Based Performance
Pat Thrap, BSN, RN, CNP
Quality and Patient Safety Advisor, PM&I
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