

SE2EOb

Using the required EO presentation format, provide one example of an improved outcome associated with the application of nursing standards of practice implemented due to a clinical nurse's(s') participation in a nursing professional organization.

Example: Decrease in PICC Line Infections by Implementing the Infusion Nurses Society Standard of a Centralized Vascular Access Team

Problem

Peripherally inserted central line catheter (PICC) infections were increasing at WakeMed Health & Hospitals.

Pre-Intervention

Nancy Reyes, BSN, RN, CV-BC, Clinical Nurse IV, Imaging Nursing, and Ashley Gordon, MSN, APRN, AGCNS-BC, CCRN, Clinical Nurse Specialist, reviewed the data and the Infusion Therapy Standards of Practice governed by the Infusion Nurses Society (INS). Based on these, they identified an opportunity for improvement and to align current nursing practice with the INS standards.

As a member of INS, Reyes attended the 2023 INS Virtual Conference, including sessions that discussed interventions to prevent central line infections and the development of vascular access policies. After the conference, Reyes organized a presentation to share with the vascular access team on the material covered in the sessions she had attended.

Based on her clinical observation and chart reviews, Reyes identified gaps in current processes involving inconsistency in central line maintenance. Reyes suggested instituting the nursing practice of having consistent staff members to perform dressing changes, as presented at the INS Virtual Conference. Reyes subscribes to INS Updates to receive information on current trends in vascular access. Reyes also regularly collaborates with the vascular access team on the INS Standards of Practice for care, using published evidence-based practice to improve current processes in the department and promote consistency in patient care.

WakeMed uses the National Healthcare Safety Network (NHSN) healthcare-associated infection (HAI) tracking system. NHSN provides facilities with data needed to identify problem areas, measure progress of prevention efforts, and ultimately eliminate HAIs. NHSN uses a standardized infection ratio (SIR) to track HAIs. In 1st Quarter FY 2022, (October-December 2021), the WakeMed SIR for PICC infections was 1.50. The SIR is calculated by dividing the number of observed infections by the number of predicted infections. The number of predicted infections is calculated using multivariable regression models from nationally aggregated data during a baseline period. The CLABSI Committee noted that there were opportunities for improvement.

Goal Statement

Reduce the NHSN SIR of PICC infections at WakeMed Health & Hospitals.

Participants

Vascular Access Resource Specialists			
Name/Credentials	Discipline	Title/Role	Department
Theresa Innocent, RN, PCCN	Nursing	Clinical Nurse	Imaging Nursing
Nancy Reyes, BSN, RN, CV-BC	Nursing	Clinical Nurse	Imaging Nursing
Ashley Gordon, MSN, APRN, AGCNS-BC, CCRN	Nursing	Clinical Nurse Specialist	Clinical Nursing Resource Services
Angela Jones, RN	Nursing	Clinical Nurse	Imaging Nursing

Description of the Intervention

2nd Quarter FY 2022 (January-March 2022)

- Reyes identified gaps in the existing organizational standard for central line maintenance and dressing changes compared to the best practice identified in the INS standards. The current practice involved unit bedside nurses performing weekly central line maintenance and dressing changes; Reyes identified the opportunity to centralize care based on current INS standards. According to the INS Infusion Therapy Standards of Practice, a specialized team of clinicians exclusively dedicated to vascular access is essential for preventing catheter-associated bloodstream infections (CLABSI) in acute care hospitals. INS supports the consistency of a vascular access team providing centralized service, following evidence-based practice in performing weekly central line maintenance to reduce and prevent CLABSIs. Reyes collaborated with Gordon and Theresa Innocent, RN, PCCN, Clinical Nurse III, Imaging Services to develop the plan to use the available audit tool for the vascular team's rounding and to provide real-time education to primary nurses.
- Innocent met with vascular team members, Reyes, and Angela Jones, RN, Clinical Nurse III, Imaging Services, to discuss team expectations, duties, and scheduling of available staff for weekly PICC line dressing changes to ensure this new process and change in nursing practice would be performed consistently by the vascular team members.
- Innocent, Reyes, and Jones began managing central line maintenance and dressing changes weekly, including PICCs, and auditing units with the highest CLABSI SIRs as a pilot to ensure the new process would be successful.
- Innocent and Imaging nursing department leadership used email notifications to disseminate hospital-wide announcements about the change in practice based on INS standards and introduce the vascular team's initiation of performing central line dressing changes for all PICC lines and central lines, as the pilot process proved to be successful.

- Vascular team members collaborated daily with unit charge nurses and primary care nurses to confirm the accuracy of the list of patients with PICC or central lines to ensure all central line dressings were identified and changed according to policy.
- Weekly reminders were sent to all charge nurses on Wednesdays requesting that nurses have dressing change kits available at the bedside of patients with PICC lines so the vascular access resource specialists would have the necessary supplies upon arrival.
- Vascular team members collaborated with unit charge nurses for daily auditing of central line integrity on identified units was.

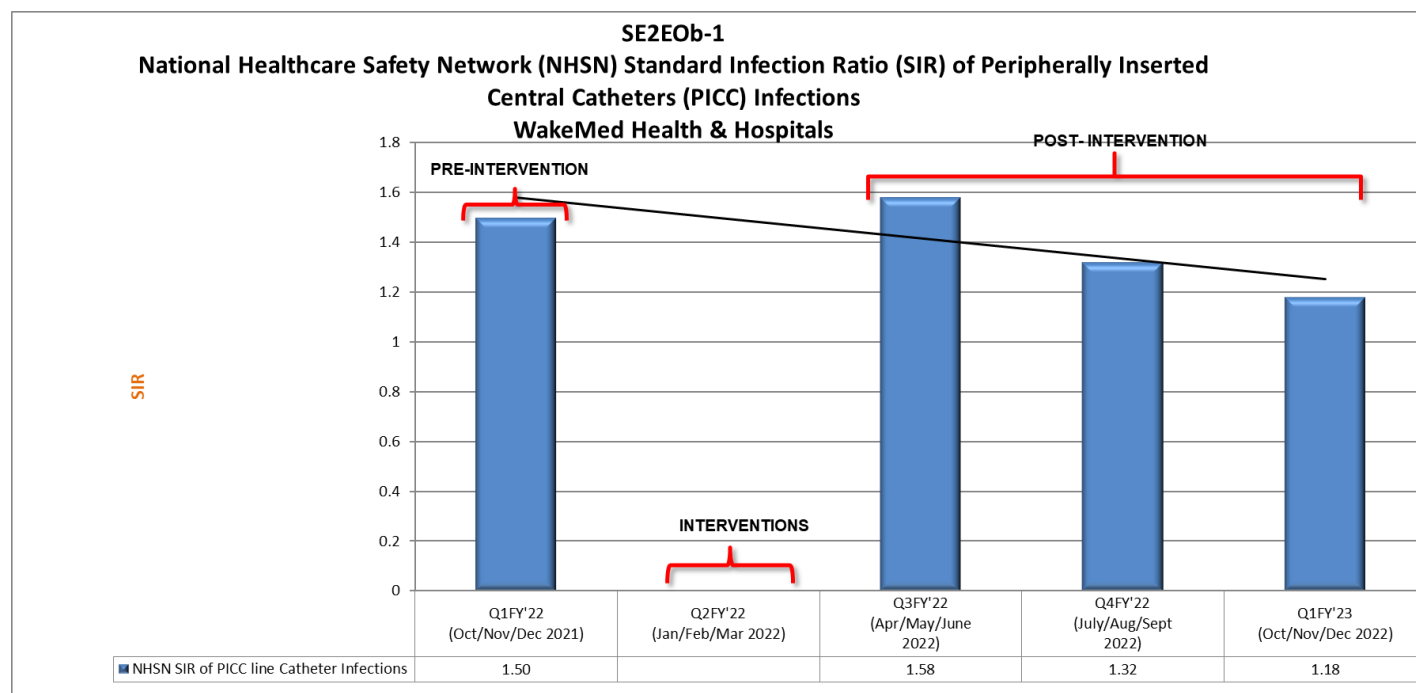
Reyes used the Infusion Therapy of Standards of Practice from INS to implement a specialized team of clinicians exclusively dedicated to vascular access to perform weekly central line maintenance and dressing changes to improve the WakeMed PICC line infection NHSN SIR.

The interventions were fully implemented by the end of March 2022.

References:

- Nickel, B., Gorski, L., Kleidon, T., Kyes, A., DeVries, M., Keogh, S., Meyer, B., Sarver, M. J., Crickman, R., Ong, J., Clare, S., & Hagle, M. E. (2024). Infusion therapy standards of practice, 9th edition. *Journal of Infusion Nursing*, 47(1S), S25–S29. <https://doi.org/10.1097/nan.0000000000000532>
- Martillo, M., Zarbiv, S., Gupta, R., Brito, A., Shittu, A., & Kohli-Seth, R. (2020). A comprehensive vascular access service can reduce catheter-associated bloodstream infections and promote the appropriate use of vascular access devices. *American Journal of Infection Control*, 48(4), 460-464. <https://doi.org/10.1016/j.ajic.2019.08.019>

Outcome



(Evidence SE2EOb-1, National Healthcare Safety Network [NHSN] Standardized Infection Ratio [SIR] of Peripherally Inserted Central Catheters [PICC] Infections, WakeMed Health & Hospitals)