

SE9EO – TEACHING AND ROLE DEVELOPMENT

PROFESSIONAL DEVELOPMENT ACTIVITY “BACK TO BASICS” REDUCES CLABSI RATES ON BMT HP11

Using the required empirical outcomes presentation format, provide an example of an improved patient outcome associated with knowledge gained from a nurse’s(s) participation in a professional development activity.

Note: Professional development activities as part of transition to practice are acceptable.

Problem

Patients admitted in the BMT (HP11-605182) [BMT HP11] Unit at NewYork-Presbyterian/Columbia University Irving Medical Center (NYP/Columbia) are prone to central line-associated bloodstream infections (CLABSIs) due to patient acuity, treatment-related neutropenia, and the need for repeated central line access for chemotherapy infusions and blood transfusions. In 2Q 2022, there was an increase in the CLABSI rate per 1,000 central line days on BMT HP11.

Pre-Intervention

2Q 2022:

- The CLABSI rate per 1,000 central line days in 2Q 2022 on BMT HP11 was 2.87.
- Tina Walsh, MSN, RN, Patient Care Director (nurse manager, at the time), BMT HP11, reviewed the CLABSI rates with the clinical nurses at a huddle. Maria Emiluth Ramos, BSN, RN, CPHON, BMTCN, Clinical Nurse Manager (clinical nurse), Oncology Services and Vascular Access Team at NYP/Columbia, conducted unit rounds with Camille Baragiano, BSN, RN, charge nurse, BMT HP11, to gain more insight into the issue. Ms. Ramos observed inconsistencies

with techniques in central venous catheter (CVC) care and dressing changes. She collaborated with Stephany Villacres, MSN, RN, PMH-BC, nurse educator, to address the knowledge gap in CLABSI prevention. Ms. Villacres recommended the unit's CLABSI champions: clinical nurses Camille Baragiano, BSN, RN; Palak Golwala, BSN, RN, BMTCN; and Laura Knights, BSN, RN, OCN, attend the professional development activity called "Back to Basics: Central Line Maintenance Review," hosted by NewYork-Presbyterian/Columbia's Department of Nursing Professional Development (NPD) for one continuing education (CE) credit.

Goal Statement

To reduce the CLABSI rate per 1,000 central line days on BMT HP11

Participants

Name/Credentials	Discipline	Title/Role	Department/Unit
Camille Baragiano, BSN, RN	Nursing	Clinical Nurse	BMT HP11
Palak Golwala, BSN, RN, BMTCN	Nursing	Clinical Nurse	BMT HP11
Laura Knights, BSN, RN, OCN	Nursing	Clinical Nurse	BMT HP11
Maria Emiluth Ramos, BSN, RN, CPHON, BMTCN	Nursing	Clinical Nurse Manager	BMT HP11
Tina Walsh, MSN, RN	Nursing	Patient Care Director (nurse manager, at the time)	BMT HP11
Stephany Villacres, MSN, RN, PMH-BC	Nursing	Nurse Educator	Nursing Professional Development

Intervention

3Q 2022:

- Ms. Baragiano, Ms. Golwala, and Ms. Knights attended the "Back to Basics: Central Line Maintenance Review." The one-hour professional development activity included:
 - a. Central venous catheters' (CVC) impact on bloodstream infections
 - b. Clinical nurse responsibilities in the care and maintenance of patients with a central line:

- Scrub the hub
 - Daily chlorhexidine gluconate (CHG) treatment
 - Minimize disconnections
 - Flushing / Patency
 - Hand hygiene
 - Aseptic insertion
 - Avoid unnecessary CVCs
 - Daily needs assessment
 - Tubing changes
 - Proper use of Q-Syte needle connector, Tego, and Curoc caps
- c. Proper application and removal of CVC dressing per NYP policy
- d. Blood specimen collection from a central line per NYP policy

Impact Statement: Delivering an evidence-based curriculum for CLABSI prevention resulted in knowledge gained skills competency to deliver safe quality care to patients, contributing to the reduction of CLABSI rates in BMT HP11.

- The professional development activity included a knowledge and skill validation component led by NPD nurse educators delivering the “Back to Basics: Central Line Maintenance Review”. Once they were endorsed, Ms. Baragiano, Ms. Golwala, and Ms. Knights all BMT HP11 clinical nurses related to their knowledge and skills concerning:
 - a. CVC impact on bloodstream infections
 - b. Clinical nurse responsibilities in the care and maintenance of patients with a central line:
 - Scrub the hub
 - Daily CHG treatment
 - Minimize disconnections
 - Flushing / Patency
 - Hand hygiene
 - Aseptic insertion
 - Avoid unnecessary CVCs
 - Daily need assessment
 - Tubing changes
 - Proper use of Q-Syte needle connector, Tego, and Curoc caps
 - c. Proper application and removal of CVC dressing per NYP Policy

d. Blood specimen collection from a central line per NYP Policy

Impact Statement: Authenticating knowledge retention and skill development via skill validation created a safe space for learning and asking/receiving feedback. This peer feedback mechanism strengthened the professional practice environment and ultimately improved the CLABSI rates in BMT HP11.

- By the end of 3Q 2022, 100 percent of the nurses completed knowledge and skill validation by the CLABSI champions, Ms. Baragiano, Ms. Golwala, and Ms. Knights and applied the information to their daily clinical practice.

Impact Statement: The professional development activity and validation resulted in clinical nurses' increase in knowledge and competence in CLABSI prevention on BMT HP11. The clinical nurses applied the knowledge and skills to their daily clinical practice and contributed to the reduction of CLABSI rates in BMT HP11.

○ **Key references**

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Magill, S. S., O'Leary, E., Janelle, S. J., Thompson, D. L., Dumyati, G., Nadle, J., Wilson, L. E., Kainer, M. A., Lynfield, R., Greissman, S., Ray, S. M., & Beldavs, Z. (2018). Changes in Prevalence of Health Care-Associated Infections in U.S. Hospitals. *The New England Journal of Medicine*, 379,1732-1744. <https://www.nejm.org/doi/10.1056/NEJMoa1801550>

Outcome

SE9EO BMT HP11 CLABSI Rate per 1,000 Central Line Days

