EP17EO

Using the required empirical outcomes (EO) presentation format, provide one example of an improved patient safety outcome associated with clinical nurse involvement in the evaluation of patient safety data at the unit level.

Example: Improvements in VTE on 3A Cardiovascular Intermediate Care Unit

Problem

WakeMed Health & Hospitals 3A Cardiovascular Intermediate Care Unit (CVIC) had an increase in venous thromboembolism (VTE) events.

Pre-Intervention

The 3A CVIC Practice and Quality Committee, led by Jessica Latham, BSN, RN, PCCN, Clinical Nurse IV, 3A CVIC, reviewed the unit's VTE event data and noted an increase in the number of the unit's patients who were non-compliant with sequential compression device (SCD) therapy and VTE prophylaxis treatment plans. Latham asked committee members to partner with Amy Sullivan, BSN, RN, CV-BC, Nurse Manager, 3A CVIC, to review charts of patients with active orders for VTE prophylaxis. The purpose was to audit for compliance with SDC and adherence to VTE prophylaxis to understand the magnitude of the problem and identify contributing factors. Lindsay McFeaters, RN, Clinical Nurse III, 3A CVIC reviewed policies and procedures related to VTE prophylaxis to create a framework to guide the auditing process. The committee members reviewed patient charts for a month and found that all the components for VTE best practice standards were not completed for roughly 50% of patients.

McFeaters, Rose Hardee, RN, CV-BC, Clinical Nurse III, 3A CVIC, and Christy Goins, RN, Clinical Nurse III, 3A CVIC, identified three primary gaps in clinical practice based on their review of the data.

- Delays in initiating SCD therapy from the time of provider order. Judith Lavina, BSN, RN, CV-BC, Clinical Nurse IV, 3A CVIC, and Angie Hechanova, BSN, RN, PCCN, Clinical Nurse IV, 3A CVIC, surveyed the unit clinical staff to determine the reasons for these delays. They found that the primary reason was the lack of readily available equipment and supplies on the unit.
- Inconsistencies in providing at least 18 hours of SCD therapy per day when ordered. The data results showed that 3A CVIC clinical nurses had misunderstood the specific role expectations for clinical staff and the optimal time frames for therapy.
- Appropriate documentation of patient refusals, which was due in part to non-standard communication regarding the need for SCD during bedside report and to clinical nurses not understanding the importance of providing education to patients who refuse VTE prophylaxis interventions.

Latham and Sullivan reviewed the literature and found the best evidence-based practice to decrease VTEs is the use of a multi-modal approach when SCDs are ordered by combining this with pharmacologic agents (Heparin, Lovenox, etc.) as opposed to only one treatment modality being ordered. The literature also supports continuous

education for nurses, as there is a significant gap in knowledge on effective practices for VTE prophylaxis among health professionals.

For February-April 2022, the 3A CVIC VTE rate was 1.17 per 1000 patient days. This is calculated by dividing the number of VTEs on 3A CVIC by the number of patient days on 3A CVIC and multiplying by 1000.

Goal Statement
Decrease the VTE rate on 3A CVIC WakeMed Health & Hospitals.

Participants

Practice and Quality Committee			
Name/Credentials	**Discipline**	**Title/Role**	**Department**
Jessica Latham, BSN, RN, PCCN	Nursing	Clinical Nurse IV	3A CVIC
Lindsay McFeaters, RN	Nursing	Clinical Nurse III	3A CVIC
Rose Hardee, RN, CV-BC	Nursing	Clinical Nurse III	3A CVIC
Cyndi Gill, RN	Nursing	Clinical Nurse	3A CVIC
Christy Goins, RN	Nursing	Clinical Nurse III	3A CVIC
Allan Avancena, BSN, RN	Nursing	Clinical Nurse IV	3A CVIC
Vicky Avancena, BSN, RN	Nursing	Clinical Nurse IV	3A CVIC
Judith Lavina, BSN, RN, CV-BC	Nursing	Clinical Nurse IV	3A CVIC
Angie Hechanova, BSN, RN, PCCN	Nursing	Clinical Nurse IV	3A CVIC
Jessica Betancourt Munoz, CNA	Nursing	Nursing Aide II	3A CVIC
Tammy Nguyen, CNA	Nursing	Nursing Aide I	3A CVIC
Ramila KC, BSN, RN, CMSRN	Nursing	Clinical Nurse IV	3A CVIC
Stephennie Smith, RN	Nursing	Clinical Nurse III	3A CVIC
Amy Sullivan, BSN, RN, CV-BC	Nursing	Nurse Manager	3A CVIC
Latonya Skinner		Supervisor, MPD	Materials Processing and Distribution

Description of the Intervention
May 2022

- Latham and the 3A Practice and Quality Committee decided to use the data from their chart reviews, staff survey results, and literature reviews to plan strategies to address the gaps they had identified.
- To address delays in initiating SCD therapy from the time of provider order, Sullivan and Latham collaborated with Latonya Skinner, Supervisor, Materials Processing and Distribution (MPD), to increase the number or par level of the disposable SCD sleeves in their clean utility rooms so nurses have the supplies needed for their patients. Sullivan and Latham also requested an increase in the number of SCD pumps available and maintained on the unit so there is no delay when a provider orders SCDs to be initiated on a patient.
- To address the inconsistencies in providing 18 hours of SCD therapy daily, Latham and Hardee created an educational document specifying the responsibilities of the RN and the nurse tech to comply with the SCD standards of care detailed in the policies, procedures, and literature they reviewed. The purpose of this form was to provide education for the staff and document their commitment to the performance improvement project. Each nurse's signature on this form indicated they had reviewed, understood, and agreed to comply with the expectations. Sullivan required each clinical nurse to sign and return the document for tracking of staff education.
- Latham, Sullivan, and Hardee provided education during staff meetings and daily huddles, which provided time for questions, comments, and discussions. Latham emailed a weekly bullet point from the education form in a "Did you know?" format to provide context to each responsibility and enable each question and comment to be addressed individually.
- Latham and McFeaters addressed the issue of provider notification of patient refusals by creating a standard process for communicating this during bedside report. A question was added to the standard report process specifically for patients who have an active VTE prophylaxis order. The off-going nurse identifies whether the patient has been compliant with SCDs and, if not, whether the primary care team has been notified of the patient's refusal to be compliant with the ordered treatment. The night shift nurse is responsible for placing a "sticky note" in the EMR for the provider to address the patient's refusal during morning rounds. The day shift nurse is responsible for ensuring the provider addresses the patient's refusal during their shift. Education on the patient refusal process included the practice of no longer documenting "not applied due to alternate therapy," as this was identified as inappropriate and unsuccessful.
- All members of the Practice and Quality Committee participated in audits of the new process to determine the effectiveness of their interventions. The committee members were assigned a patient area to audit each week. The audits covered SCD therapy initiated within eight hours of provider order, documentation of therapy status with each head-to-toe assessment, and appropriate documentation of patient refusals.

Latham, McFeaters, Hardee, Gill, Goins, A. Avancena, V. Avancena, Lavina, Hechanova, Betancourt, Nguyen, KC, Smith, and Sullivan's involvement in the

evaluation of 3A CVIC's VTE data led to the implementation of evidence-based interventions that resulted in an improvement in VTE rate on 3A CVIC.

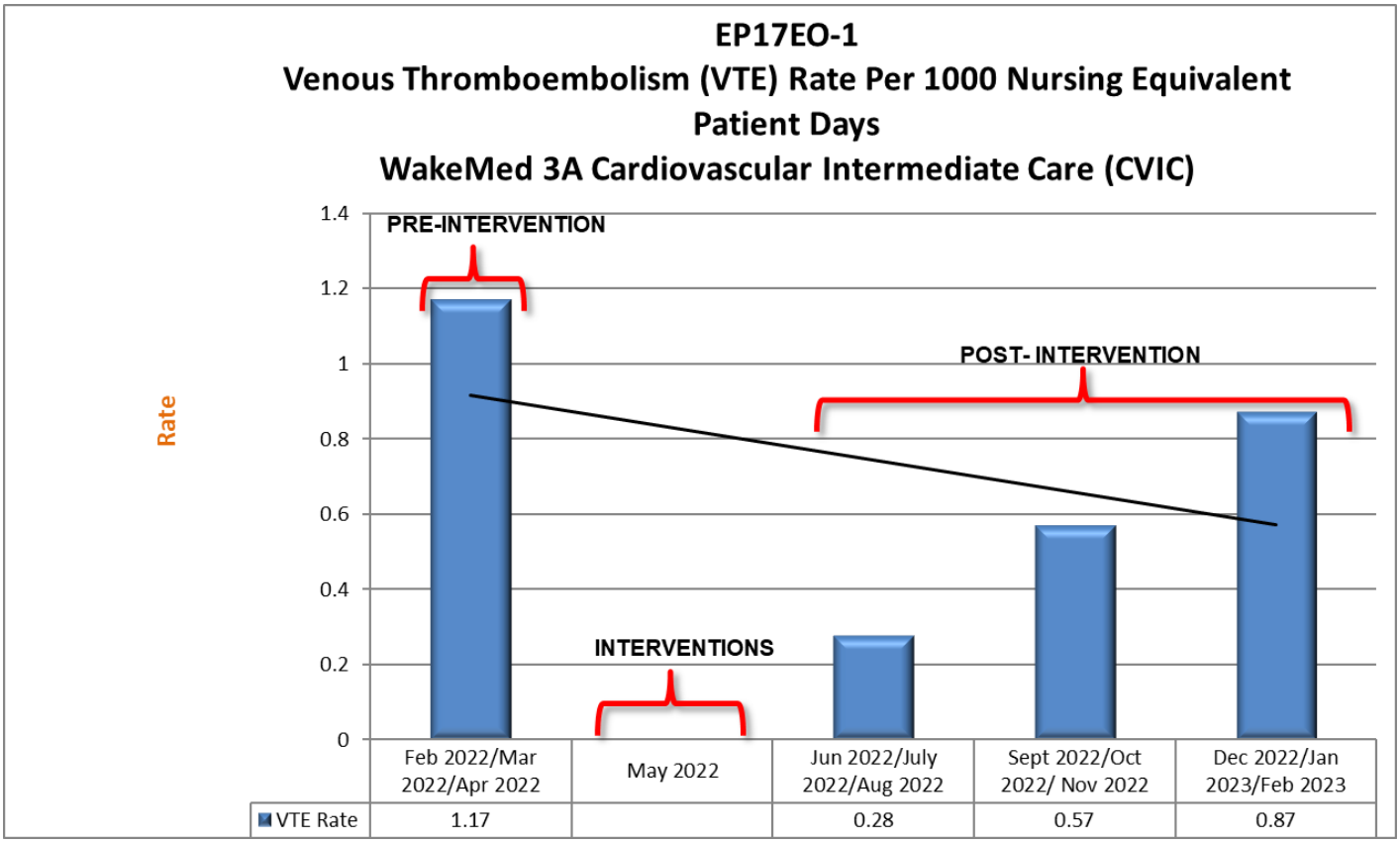
The interventions were fully implemented by the end of May 2022.

References:

Schünemann, H. J., Cushman, M., Burnett, A. E., Kahn, S. R., Beyer-Westendorf, J., Spencer, F. A., ... & Wiercioch, W. (2018). American Society of Hematology 2018 guidelines for management of venous thromboembolism: prophylaxis for hospitalized and nonhospitalized medical patients. Blood advances, 2(22), 3198-3225

Yan, T., He, W., Hang, C., Qin, L., Qian, L., Jia, Z., ... & Xu, Y. (2021). Nurses' knowledge, attitudes, and behaviors toward venous thromboembolism prophylaxis: how to do better. Vascular, 29(1), 78-84

Outcome



(Evidence EP17EO-1, Venous Thromboembolism [VTE] Rate per 1000 Nursing Equivalent Patient Days, WakeMed 3A Cardiovascular Intermediate Care [CVIC])