

Introduction

Venous thromboembolism is one of the leading hospital-acquired conditions associated with significant levels of morbidity, disability, and mortality.

- ❖ U.S., VTE is estimated to effect 350,000 to 900,000 people each year.
- ❖ The Joint Commission uses VTE as an indicator for the concept of **"failure to prevent"**
- ❖ VTE is preventable, however the condition is highly unpredictable and has few associated warning signs.

Background & Significance

- ❖ VTE is a term that includes both deep vein thrombosis (DVT) and pulmonary embolism (PE)
- ❖ Risk Factors of VTE:
 - ❖ Recent surgery
 - ❖ Reduced mobility
 - ❖ Pregnancy
 - ❖ Smoking
 - ❖ Long hospitalization
 - ❖ Increased age
- ❖ Adherence and compliance remains inconsistent to pneumatic compression devices
- ❖ The CDC estimated the total costs of VTE to be around \$10 billion dollars per year.
- ❖ Each incident of VTE, costs \$18,000 to \$23,000

Objective

Implement an education campaign on the importance of pneumatic compression devices.

Methodology

This quality improvement project used the Plan-Do-Study-Act (PDSA) framework to assess adherence to pneumatic compression device use

Setting

❖ Medical-surgical floor at a medical center in New Brunswick, New Jersey

Study Population

❖ Patients admitted to a medical-surgical floor on VTE prophylaxis

Study Intervention

- ❖ In-service training for nursing staff on VTE prevention and the new VTE QI
- ❖ Placement of a bedside visual cue in 34 patient rooms
- ❖ Weekly audits three times a week using the collection tool

Outcomes measured

- ❖ Assessed patient's compliance with pneumatic compression devices.

Theoretical Model

Knowles adult learning theory was used to develop and design the pilot project

Data Interpretation

- ❖ Progressive **increase** in pneumatic compression devices adherence from the pre-intervention period.
- ❖ Mann-Whitney U Test was computed to see if there was a statistically significant.
 - Statistical analysis results showed **NO** statistically significant between the pre and post implementation phase.
 - (U = .000, **p = .083**, z = -1.732).

Project Limitations

- ❖ Sample size to small
- ❖ Type 1 error
 - Pre-intervention data in months and post-intervention data in weeks
- ❖ COVID-19 pandemic

Discussion & Implications

Overall increase in the use of pneumatic compress device over a course of 6 week period

- ❖ Pre 85% adherence to 94% post
- ❖ Positive impacted on patients and nurses
- ❖ Educating nurses and patients can lead to a decrease in VTE events and improve patient stratification

Conclusions

- ❖ Visual cues are simple tools to ensure compliance to the use of pneumatic compression devices.
- ❖ Implementing a visual reminder increased compliance and improved awareness among nurses and patients.

References

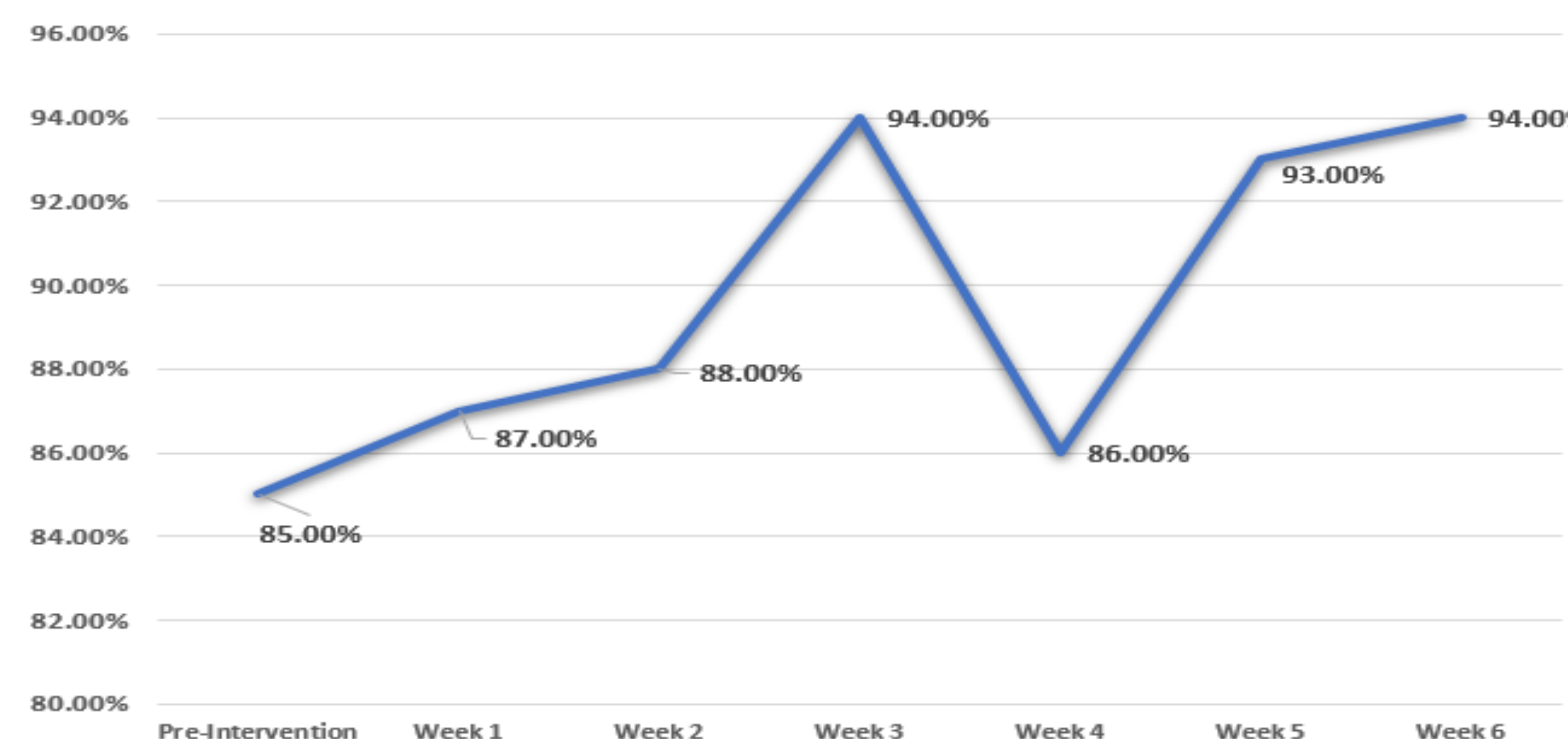
Refer to attached sheet

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Results

PCD Adherence by Intervention Week



4 Healthcare-Associated Blood Clots Are Avoidable: Prevention is Key

As many as **70%** of healthcare-associated blood clots are **preventable**.

HOWEVER

Fewer than **50%** of hospital patients receive **appropriate preventive treatment**.

National incident rate for VTE, averaged at **3.4 events per 1,000 cases in 2016**

References

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