

# Eliminate Preventable Harm: Hartford Healthcare's Venous Thromboembolism Prevention Initiative



Hartford Healthcare, Windham Hospital, Willimantic, CT

## Overview/project description

Venous thromboembolism (VTE) affects as many as 900,000 Americans each year. Up to 100,000 Americans die from VTE each year – 10-30% will die within one month of diagnosis and approximately 25% with pulmonary embolism (PE) have sudden death as their first symptom. Recurrence of VTE is not uncommon (33%) and one third of those with deep vein thrombosis (DVT) have long-term complications (e.g., post-thrombotic syndrome).

Prevention is key! Most hospital-acquired (HA) VTE events can be prevented with appropriate prophylaxis. The Eliminate Preventable Harm: HHC VTE Prevention Initiative established best practice prevention methods to implement hospital and region-wide. Windham Hospital began with a pilot in March 2022 and has seen improved compliance with the prevention methods and zero HA VTE events in 2022.

The initiative is still in process, and newly revised VTE prophylaxis guidelines will be released in February 2023 system-wide. Further reductions in HA VTE are expected.

## Goals/objectives

The objective of the VTE Prevention Initiative is to reduce hospital-acquired venous thromboembolism (HA VTE) in admitted patients across Hartford Healthcare (HHC) by utilizing best practice in VTE prevention.

## Methods/measurements

Best practice prevention methods have been promoted at different intervals across the system as decided by each region/hospital and are still in process at Windham Hospital. These methods are broken down into Nursing, Provider, and Governance and Process.

Provider goals included:

- Use of VTE Risk Assessment tool within 24 hours of admission
- Use of standardized VTE order sets, ensuring appropriate chemical and mechanical prophylaxis based on risk assessment
- Use of Epic smart phrase in notes to ensure thorough VTE prophylaxis documentation
- Discussion of prophylaxis during rounds

## Methods/Measurements Cont'd

Nursing goals included:

- First, ensuring adequate knowledge, skills, and abilities (KSAs) in VTE and VTE prevention methods by providing education
- Timely administration of chemical prophylaxis
- Consistent use of mechanical prophylaxis, such as sequential compression devices (SCDs) and regular nursing documentation of SCD use
- Ensuring adequate ambulation for those who are considered ambulatory and documenting distance ambulated throughout the shift
- Ensuring handoff between nurses
- Providing education about VTE and VTE prevention to patients and family

Governance and Process included:

- Development of a regional task force
- Conduct safety huddles when HA VTE develops
- Perform case reviews for any VTE that is not present on admission (POA)

Measurement of compliance of best practice methods use involves visual/in-person audits and electronic audits via Epic reports and dashboards created for the VTE initiative. All regional-specific VTE events are identified by radiological results and thorough chart audits are conducted on all positive VTE exams determined not to be POA.

## Results/findings/conclusions

### Windham Hospital Findings

Education was provided to nursing (a med-surg pilot unit) and providers to ensure KSA in VTE and best practice prevention methods. Visual and electronic auditing was performed on these prevention methods prior to, during, and post-education.

Significant improvements were seen across all methods audited:

- VTE Risk Assessment scoring within 24 hours of admission (Providers): 6% increase
- SCD use – documentation of use over a 12-hour period (Nursing): 5% increase
- Ambulation – distance documentation (Nursing/Technicians): 32% increase

There were no HA VTE events for the year 2022 at Windham Hospital.

The VTE Prevention initiative is still in process and will extend beyond the pilot unit to all inpatient units at Windham hospital beginning February 2023 as revised VTE prophylaxis guidelines are released. We expect to see continued success at Windham and across the system.

## References

American Heart Association. (2022). Risk factors for venous thromboembolism (VTE). Retrieved on February 26, 2022 from <https://www.heart.org/en/health-topics/venous-thromboembolism/risk-factors-for-venous-thromboembolism-vte>.

Centers for Disease Control and Prevention (CDC). (2020). Venous thromboembolism. Retrieved on February 28, 2022 from [cdc.gov/ncbddd/dvt/data.html](https://www.cdc.gov/ncbddd/dvt/data.html)

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