

# Optimizing Patient Care: Appropriate Use of VTE Prophylaxis

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## BACKGROUND

Venous thromboembolism (VTE), including deep vein thrombosis (DVT) and pulmonary embolism (PE), constitute a major health problem in the United States Health System, with a reported high mortality rate and significant economic toll. Despite the prevalence of VTE and associated mortality, clinicians have struggled in prescribing appropriate VTE prophylaxis for the inpatient population, often over or under prescribing, subsequently increasing patient risk, compliance, and cost.

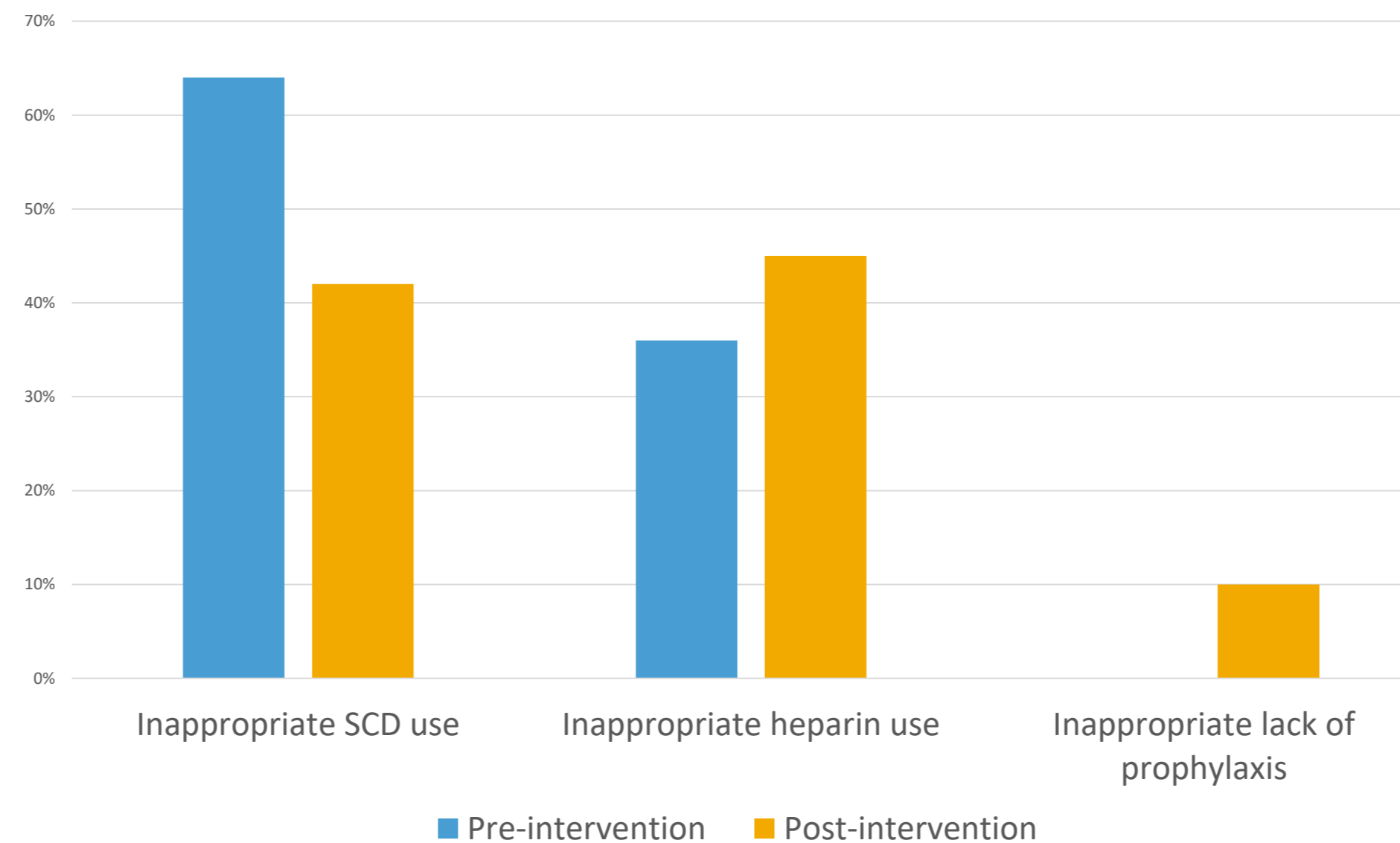
## METHODS

- Retrospective chart review of resident admissions at Abbott Northwestern Hospital, Internal Medicine Residency, on each Wednesday from February 17, 2019 to July 17, 2019
- Rates of appropriate prophylaxis, frequency of inappropriate SCD use, inappropriate subcutaneous heparin or enoxaparin use, and lack of VTE prophylaxis were compared both pre and post-intervention (April 17, 2019)
- Appropriate selection was determined using the Padua, IMPROVE, and IMPROVE Bleed scoring systems

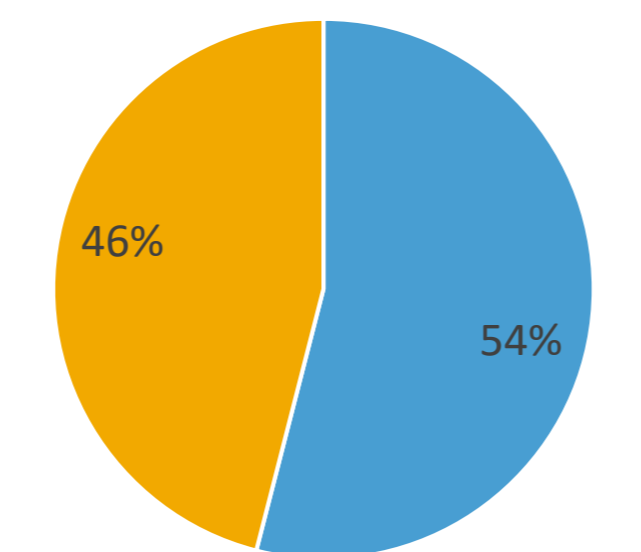
## INTERVENTIONS

- Formal presentation to resident physicians on the use of Padua, IMPROVE, and IMPROVE Bleed scoring on April 17, 2019
- Implementation of a VTE prophylaxis tool in ANW Toolset

VTE Prophylaxis Inappropriate Use Pre- vs. Post-intervention

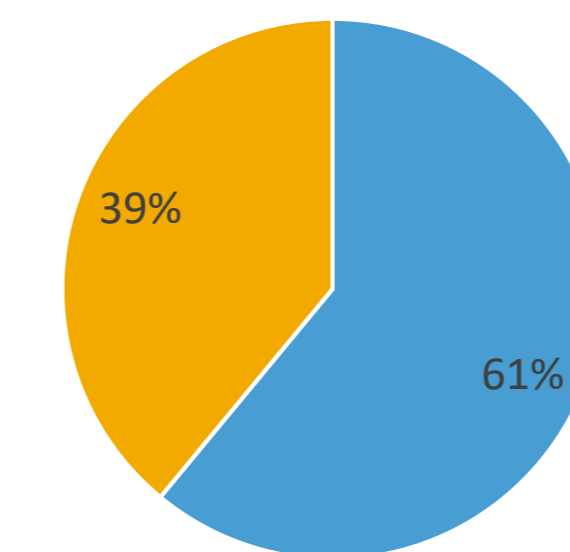


VTE Prophylaxis Selection, Pre-intervention (n=48)



■ Appropriate ■ Inappropriate

VTE Prophylaxis Selection, Post-intervention (n=88)



■ Appropriate ■ Inappropriate

## RESULTS

- Inappropriate use of VTE prophylaxis **decreased** from 54% to 61%
- Inappropriate use of SCD's **decreased** from 64% to 42%
- Inappropriate use of subcutaneous heparin **increased** from 36% to 45%
- Inappropriate lack of prophylaxis **increased** from 0% to 10%

## CONCLUSIONS

Our data shows a clear improvement in appropriate prophylaxis use following education and awareness, however, extensive heparin use and an inappropriate lack of prophylaxis were still common despite intervention.

## FURTHER INTERVENTIONS

- Padua scoring system built into admission order set with recommendations
- Further teaching and discussion on use of Risk Assessment Tools

## REFERENCES

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2. Kahn SR et al. Prevention of VTE in nonsurgical patients: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest.* 2012 Feb; 141 (2 Suppl): e195S-e226S.
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