

VTE Prophylaxis: Analyzing the Effectiveness of a Standardized Protocol

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BACKGROUND

Aim: to evaluate the rate of provider adherence to the burn center VTE protocol and identify barriers to proper protocol utilization

- Studies indicate burn patients are at increased risk for VTE above other surgical populations¹
- 31.8% of burn surgeons do not use VTE prophylaxis in accordance with national guidelines²
- Vanderbilt Regional Burn Center implemented an updated VTE protocol² on March 1, 2018
 - Criteria for classifying high-risk and very high-risk burn patients
 - Implemented LMWH monitoring to optimize prophylactic dosing
 - Specified criteria for discontinuation of prophylaxis
- Compliance with new protocol was ~ 50%, likely due to a combination of provider education and systems-based issues

METHODS

Design

- Single-center, retrospective observational analysis
- Non-experimental design based on the Model for Improvement

Time Period

- May 1 – July 31, 2018

Inclusion Criteria

- Clinicians who entered orders for burn patients during the designated time frame

Primary Outcome

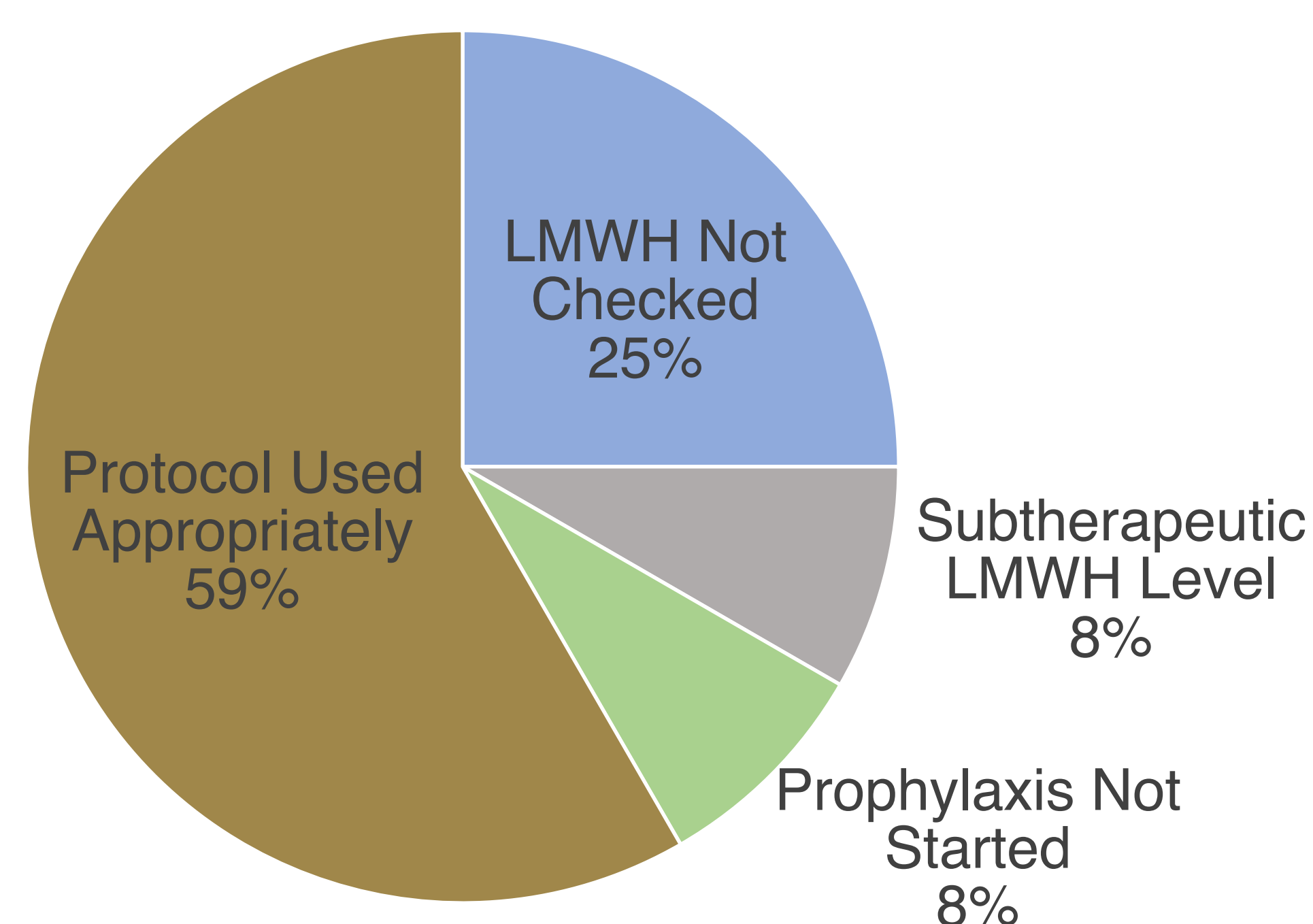
- Provider compliance with the VTE protocol (correct dose with appropriate monitoring for high-risk patients)

Secondary Outcomes

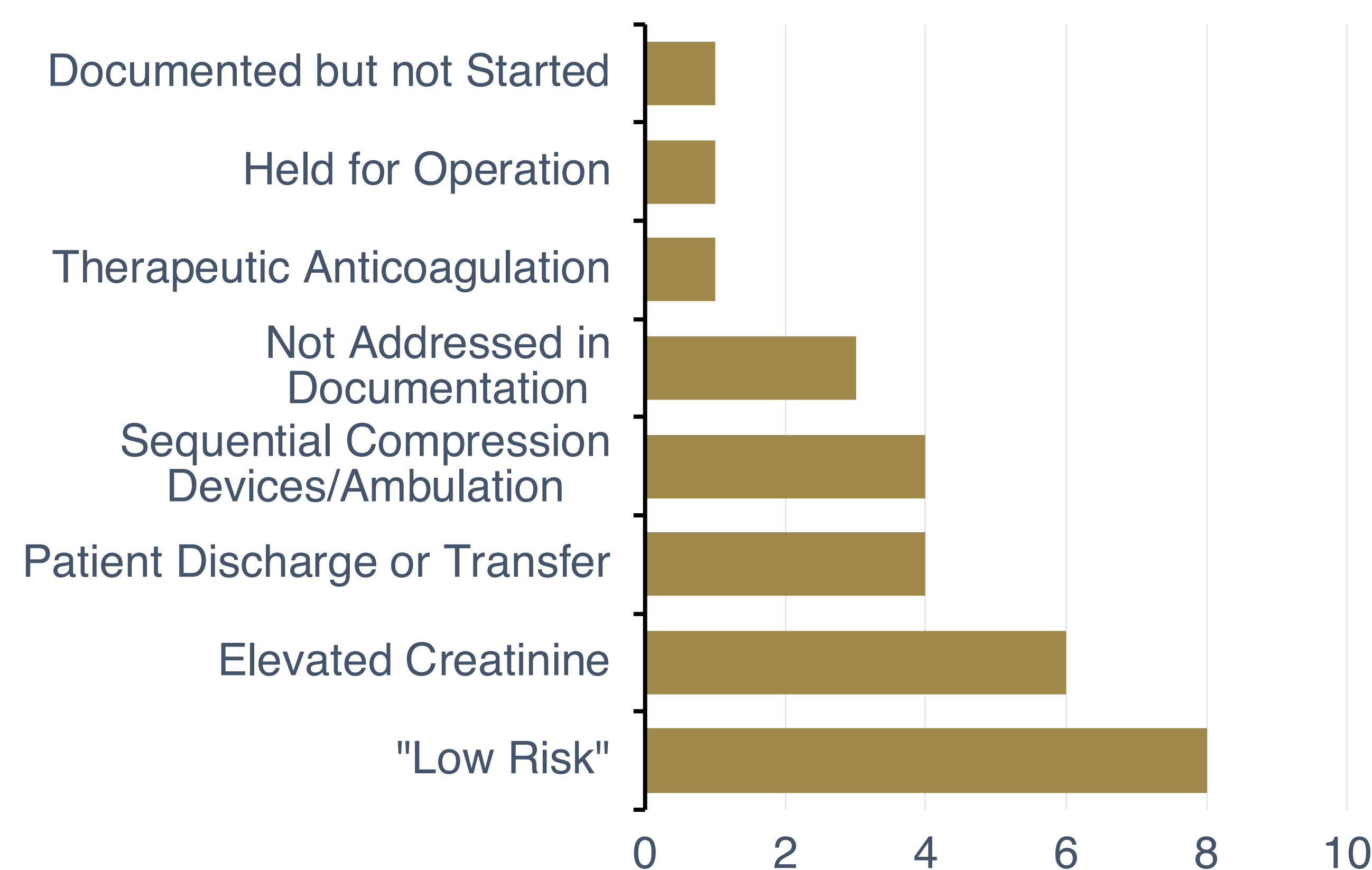
- Potential barriers to proper protocol adherence
- Rate of VTE during designated time period

TABLES/FIGURES

VTE Protocol Utilization



Documented or Inferred Reasons for Protocol Deviation



RESULTS

- 116 patients admitted between May 1 – July 31, 2018
- 98 Adult records reviewed, 18 pediatric records excluded
- VTE Prophylaxis Protocol used correctly in 52% of adult patients
- 12 patients met criteria for LMWH monitoring according to protocol; 41.7% of those had protocol incorrectly implemented
- When LWMH levels were indicated, 58.3% of patients required an increased dose of enoxaparin
- No documented cases of VTE during evaluation period

CONCLUSIONS

- Protocols are a way to standardize patient care, reduce costs and improve patient outcomes; but only if they are consistently utilized
- There is a high risk of adverse events with inadequate VTE prophylaxis
- All identified reasons for deviation from VTE protocol were secondary to clinician error
- An action plan was recommended to improve provider compliance with VTE and all burn unit protocols
- Nurse practitioners were tasked with responsibility for ensuring protocol adherence and referring rotating resident team to burn center protocol website
- Enhanced clinical decision support and/or revision of burn center admission orders is warranted

REFERENCES

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