

Deep Vein Thrombosis in the ED: Identifying Gaps in Guideline-Based Care

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Introduction

In Ireland, deep vein thrombus (DVT) is commonly managed in the Emergency Department (ED). Clear guidelines are paramount in enabling busy staff to manage this high-morbidity condition in a timely and effective manner. We compared the investigation and management of DVT at MMUH ED to the best practice recommendations of the National Institute for Health and Care Excellence¹.

Methodology

We performed a retrospective audit of all patients who were placed on the 'DVT Pathway for ultrasound scan (USS)' in MMUH from August-October 2023. A total of 70 patients were included.

Results

A Wells' score was documented in 65.71% of cases. Of the 46 documented Wells' scores, 20 had a score of 0-1 (DVT unlikely) while 26 had a score of ≥ 2 (DVT likely). Of those in the 'DVT unlikely' category, 90% (18) had an elevated D-Dimer ($>0.5\text{mg/L}$), 10% (2) had a negative D-dimer but were still referred for scans. Of the 24 patients for whom no Wells' score was documented, 12.5% (3) had a negative age-adjusted D-Dimer, while 25% (6) had no D-Dimer sent. The mean wait time to USS was 1.79 days. Of the 62 who did not have a same day scan, 28 were given interim anticoagulation, 34 were not.

Discussion

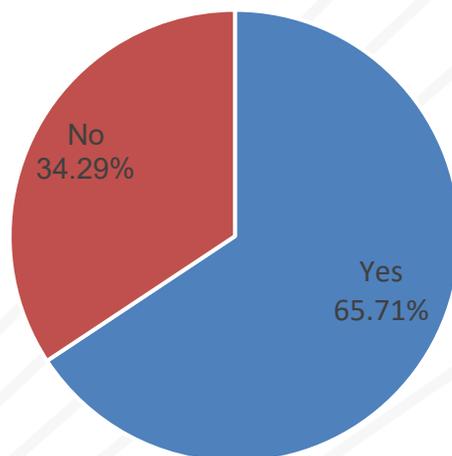
USSs are a precious resource. Slots, therefore, should be allocated based on patients' risk. This study showed that a large proportion of patients who underwent USS were never risk stratified.

Anticoagulation is frequently under-prescribed, possibly due to clinicians overestimating the bleeding risk². Our results showed under-prescription of anticoagulation for patients awaiting an USS. This is particularly relevant to resource-poor settings where same day USS is not possible.

References

1. Venous thromboembolic diseases: diagnosis, management and thrombophilia testing. 2020. NICE guideline [NG158]. Last updated: 2 August 2023.
2. Di Minno G, Tufano A. Challenges in the prevention of venous thromboembolism in the elderly. *J Thromb Haemost*. 2004 Aug;2(8):1292-8. doi: 10.1111/j.1538-7836.2004.00842.x. PMID: 1530403Di

Fig 1. Documentation of Wells' Score



Conclusion

The results highlight multiple areas for improvement. The most notable being the documentation of a Wells' score and its use to guide onward investigation, and the prescription of interim anticoagulation. Based on these results we developed a proforma for use in the DVT pathway and presented it to the hospital's venous thromboembolism committee for approval. We hope that clearer practical guidance will give clinicians the confidence to make evidence-based decisions.