

Evaluation of Direct Oral Anticoagulant Prescribing for Venous Thromboembolism Treatment in the Emergency Department at an Academic Community Medical Center



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Background

- Venous thromboembolism (VTE) is the third most common cause of vascular disease - related deaths and affects as many as 900,000 Americans each year.¹⁻³
- The American College of Emergency Physicians released a clinical policy in May, 2018 which states that select patients who are at low risk for adverse outcomes may be safely discharged from the Emergency Department (ED) with an acute pulmonary embolism (PE) or deep vein thrombosis (DVT).⁴
- Despite limited evidence to support safety and effectiveness of managing patients with low-risk VTE without hospitalization, this practice is utilized in general and at Lahey Hospital & Medical Center (LHMC).⁴

Objective

To determine if patients prescribed direct oral anticoagulants (DOACs) for a newly diagnosed VTE can be safely discharged from the ED.

Methods

Retrospective review of patients with a new VTE discharged from the ED at LHMC in Burlington, MA between May 2015 and October 31, 2018

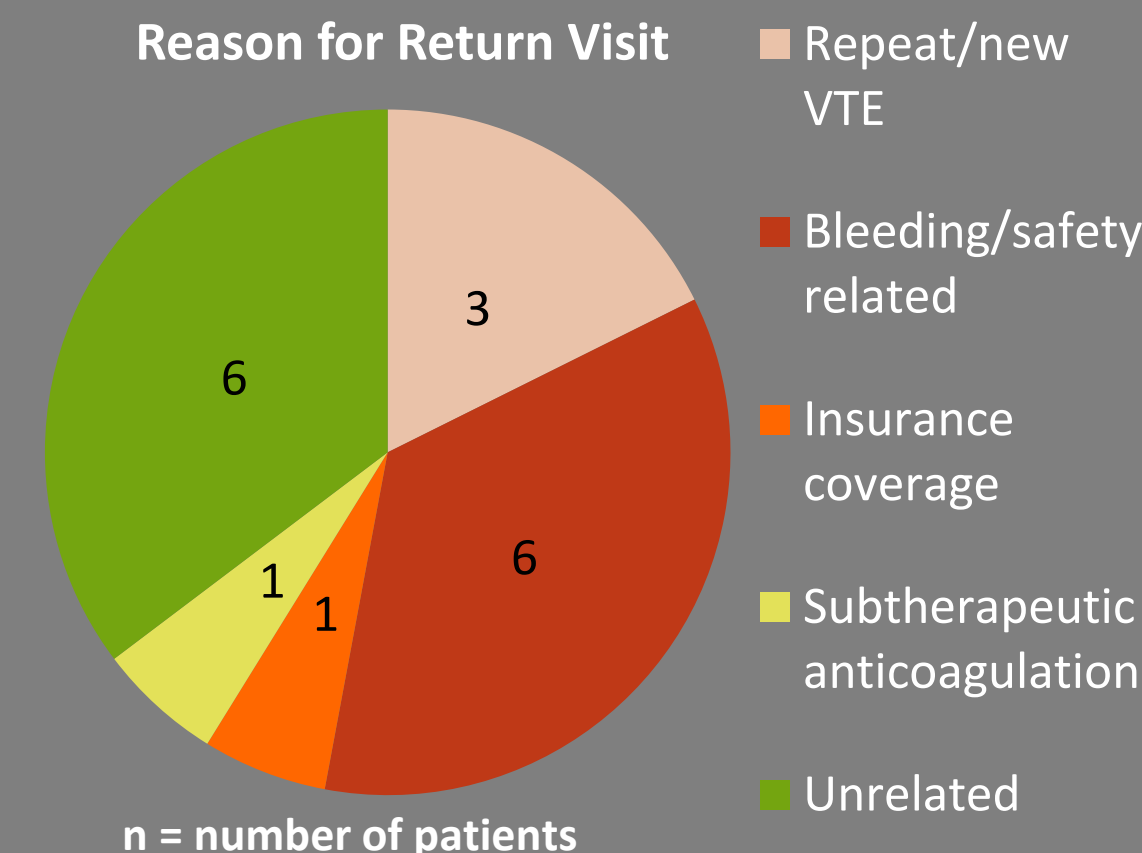
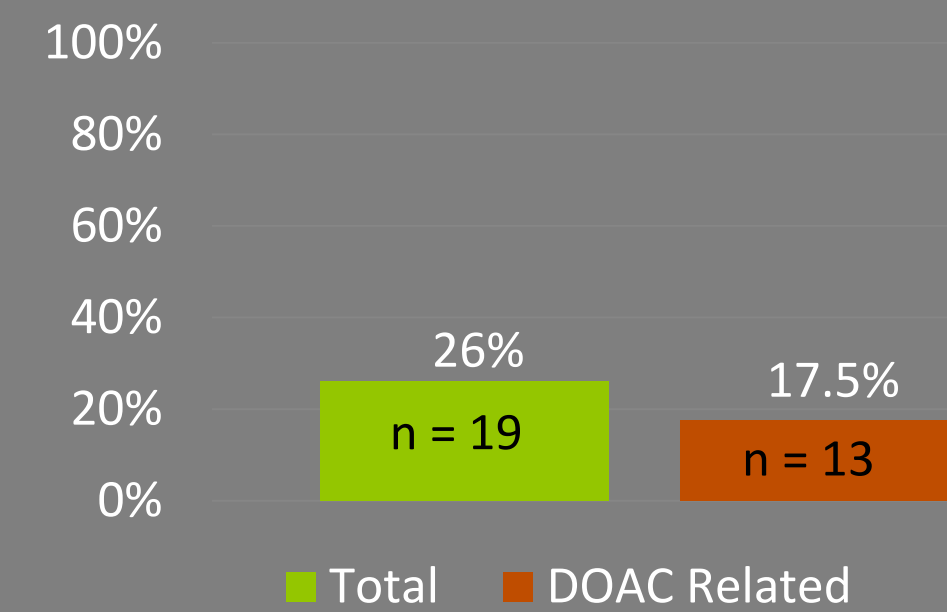
Inclusion Criteria	Age ≥ 18 years Diagnosed with new VTE Discharged from ED Initiated on DOAC therapy
Exclusion Criteria	Admission to the hospital Discharged from ED on a DOAC for atrial fibrillation Prior DOAC use
Primary Endpoint	Return ED visit/admission rates
Secondary Endpoint	Reason for return to ED or admission Time to outpatient follow-up Change in therapy or dose

Results

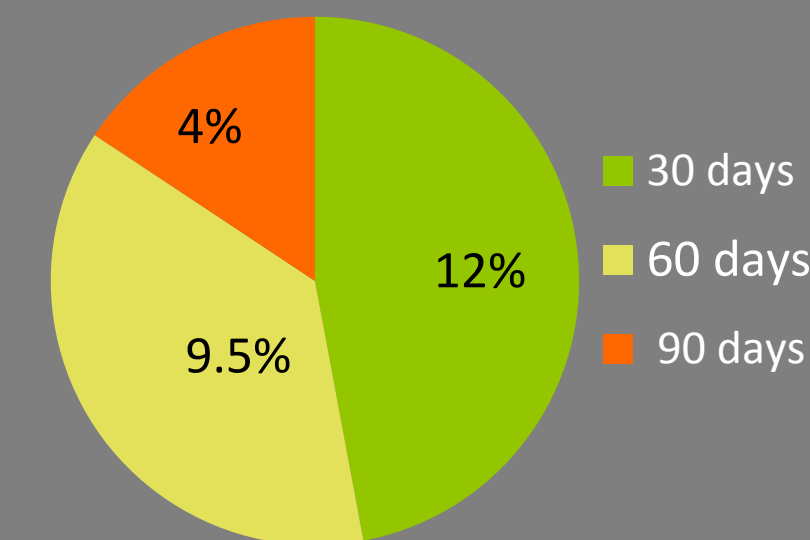
Baseline Characteristics (n = mean ± SD)	
Total number of patients = 74	
Age (years)	59 ± 15.7
Gender	
Female, n (%)	28 (37.3%)
Weight (kg)	89 ± 20.4
BMI (kg/m ²)	29.9 ± 5.96
Labs	
SCr (mg/dL)	0.98 ± 0.23
CrCl (mL/min)	85.6 ± 30.6
Hemoglobin (g/dL)	13.5 ± 1.6
Hematocrit (%)	36.4 ± 3.99
Platelets (K/uL)	228. ± 65.6

ED Clinical Presentation	
Diagnosis, n (%)	
DVT	64 (86)
Distal	23 (36)
Proximal	23 (36)
Uncommon origin	4 (6)
Unspecified	14 (22)
PE	9 (12)
Segmental	7 (77)
Sub segmental	2 (22)
Thrombophlebitis	1 (1)
Provoked	46 (62)
Known VTE risk factors	62 (84)
Time of symptom onset, n (%)	
Within 24 hours	15 (20)
Within 48 hours	11 (15)
≥ 72 hours	41 (55)

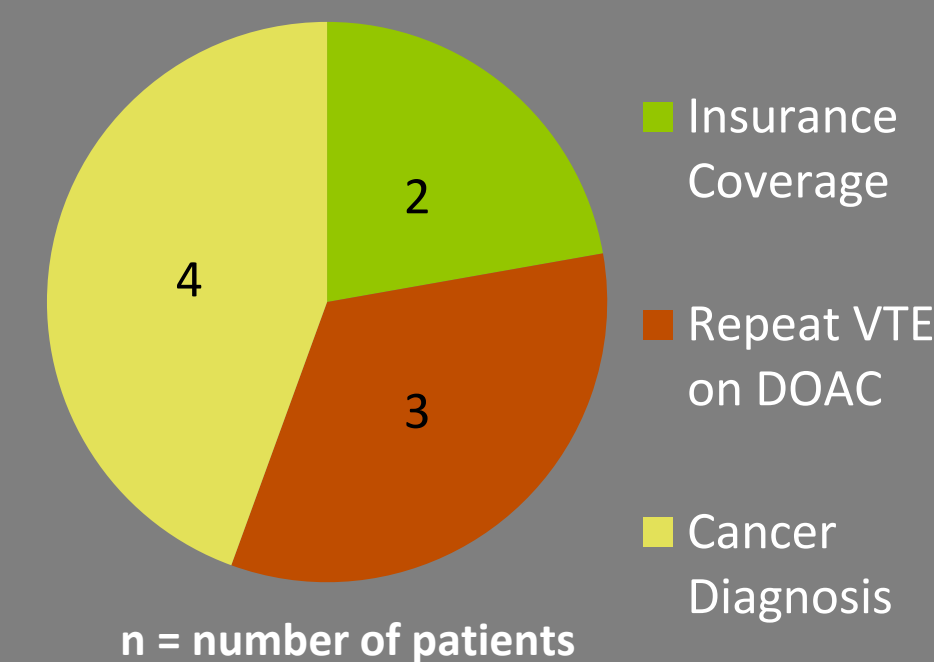
Return Visits



Return Visit Timeframe



Change to Enoxaparin/Warfarin within 90 Days



Discussion

- Results demonstrate that 17.5% (n=13) of patients discharged from the ED on DOAC therapy, returned to the ED or were hospitalized within 90 days for reasons related to DOAC therapy.
- Of the thirteen patients that returned for DOAC-related reasons, five were hospitalized (four for non-major bleeding, one for repeat VTE).
- Eight percent (n = 6) of patients that did return to the ED within 90 days did so for non-major bleeding/safety-related reasons associated with DOAC therapy.
- Twelve percent (n = 9) of patients were switched to enoxaparin or warfarin therapy within 90 days.
- The number of patients that had follow – up within 30 days was 68%, 70% within 60 days and the remaining patients were not followed within the LHMC system or follow-up was unclear.

Future Implications

This evaluation will be used as a safety initiative shared with ED clinicians to promote appropriate use of DOACs in patients with a newly diagnosed VTE.

Limitations

- Retrospective, observational design
- Single center with a limited number of eligible patients
- Lack of access to outside medical records limiting follow up

Disclosures

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities .

References

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