

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. Upon approval of direct oral anticoagulant (DOAC) Xa inhibitors in 2011, oral anticoagulant prescribing is no longer limited to warfarin and low molecular weight heparins. 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) The policy states “there are limited data assessing safety of early discharge of patients with PE receiving a DOAC; no current data suggests any reason why a DOAC would be inferior as a treatment regimen for this group of patients. Selected patients with acute DVT may be safely treated with a DOAC and directly discharged from the ED.” This practice is increasing to attempt to avoid hospital admission and reduce health care costs.

Objective:

To determine the safety and effectiveness of DOACs prescribed to patients newly diagnosed with a VTE discharged from the ED.

Methods:

A single center retrospective review of patients with a newly diagnosed VTE discharged from the ED at Lahey Hospital and Medical Center in Burlington, MA between May 2015 and October 31, 2018. Patients were included for analysis if discharged from the ED with a DOAC prescription for VTE treatment. Patients were excluded from this evaluation if discharged from the ED on a DOAC for atrial fibrillation or for a prescription refill. This MUE will evaluate 30, 60 and 90 day return ED visits and readmission rates, reason for return to ED or readmission, appropriateness of therapy including medication, dose and frequency, time to outpatient follow-up and changes in therapy or dose within 3 months.

Results and Conclusions:

Results demonstrated 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). This evaluation will be used as a safety initiative to promote appropriate use of DOACs in patients with a newly diagnosed VTE.