

Direct Oral Anticoagulant (DOAC) Starter Packs in the Emergency Department

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INTRODUCTION

- Patients are routinely admitted from the Emergency Department (ED) after a Venous Thromboembolism (VTE) diagnosis for the sole purpose of initiating anticoagulation therapy
- VTE includes diagnosis of Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE)
- Patients not admitted will be discharged home on Low Molecular Weight Heparin (LMWH) injections which can be challenging along with warfarin
- Therefore, DOACs are a great option to use as an alternative to LMWH and warfarin
- DOACs are convenient, safe and less overall bleeding, less frequent monitoring, no diet restrictions, and standard dosing
- If DOAC therapy is considered in the ED, its initiation is delayed since a Clinical Pharmacists Specialists must review the Restricted Drug Request (RDR) and enter the medication prior to dispensing a DOAC

BACKGROUND

- VA North Texas Health Care System in Dallas is the second largest VA in the nation, serving more than 129,000 Veterans
- In 2018, VA North Texas had 130 patients seen in the Emergency Department diagnosed with a VTE
- 85 patients were admitted inpatient for the sole purpose of initiating Anticoagulation (AC) therapy and monitoring with an average cost of \$5000/admission
- DOAC starter pack initiative in the ED for VTE patients was established to decrease unnecessary inpatient admissions, improve patient compliance, and decrease overall costs
- Therefore, Anticoagulation Clinic, Pharmacy, and ED staffs collaborated with other hospital administrators to implement a process utilizing DOAC Starter Packs for ED VTE patients

OBJECTIVE

To reduce inpatient admissions and hospital costs for patients diagnosed with VTE in the Emergency Department by utilizing a DOAC Starter Pack

METHODS

- Xarelto® (rivaroxaban) or Eliquis® (apixaban) Starter Packs were utilized for the ED only since neither required a lead in dosage with either LMWH or Unfractionated Heparin (UFH) and have specific dosing instructions
- Educational in-services about DOACs and processes for this initiative were provided to the ED providers and nursing staff along with pharmacy operations staff
- A quick guide chart was created to assist both ED and pharmacy operations staff on DOAC Starter Pack usage for ED VTE patients
- A medication quick order set was created in the VA Computerized Patient Record System (CPRS) for the ED providers to order the Xarelto® (rivaroxaban) and Eliquis® (apixaban) Starter Packs
- Upon ordering a DOAC Starter Pack, ED providers submitted an Anticoagulation Clinic Consult, RDR, and reviewed up to date labs to check for renal and bleeding issues
- Prior to dispensing a DOAC Starter Pack, operational pharmacists checked to ensure process requirements were met by Emergency Department providers
- New VTE patients were able to be discharged home from the ED with either a Xarelto® (rivaroxaban) or Eliquis® (apixaban) Starter Pack
- Anticoagulation Clinical Pharmacist Specialists reviewed the RDR the next business day and contacted the patient for enrollment into the Anticoagulation Clinic, DOAC education, and monitoring of therapy
- Anticoagulation Clinical Pharmacist Specialists monitored ED providers and pharmacy operation staff to ensure appropriate prescribing and compliance with requirements were being met for VTE ED patients to obtain a DOAC Starter Pack

RESULTS

- From March 2019 to January 2020, 58 patients diagnosed with a VTE in the ED were discharged home on either a Xarelto® (rivaroxaban) or Eliquis® (apixaban) Starter Pack rather than being admitted for anticoagulation therapy initiation
- A total of 58 DOAC Starter Packs were ordered and dispensed for VTE diagnosis
- Approximately, \$290,000 was saved by avoiding admission
- This cost savings exceeded the goal of reducing admission costs by >\$100,000

CONCLUSION

- By having a multidisciplinary collaboration and utilizing DOAC Starter Packs, hospital admissions and costs were decreased for new VTE patients diagnosed in the ED
- DOAC Starter Packs helps to reduce overall costs, improve patient compliance, and outcomes in therapy. Also, they are a safer and better alternative for new VTE patients compared to LMWH and warfarin initiation in the ED
- Anticoagulation Clinical Pharmacist Specialists and Pharmacy staff can help to improve hospital cost saving measurements by participating and implementing a ED DOAC Starter Pack process for new diagnosed VTE patients who do not require hospital admission



REFERENCES

Xarelto (rivaroxaban) [package insert]. Titusville, NJ : Janssen Pharmaceutical Companies; 11/2019.

Eliquis (apixaban) [package insert]. Princeton, New Jersey : Bristol-Myers Squibb Company; 11/2019.

<https://www.pbm.va.gov/clinicalguidance/criteriaforuse.asp>

