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Immediate Discharge with Home Treatment for Low-Risk Venous Thromboembolisms

PURPOSE

To provide emergency department (ED) clinicians with a venous thromboembolism (VTE) management algorithm to safely and effectively manage VTE patients.

BACKGROUND

Venous thromboembolisms (VTEs) comprise deep vein thromboses (DVTs) and/or pulmonary embolisms (PEs). Standard therapy for VTEs included Heparin or Lovenox, in conjunction with Warfarin, and a hospital stay to allow Warfarin levels to achieve therapeutic range. The addition of new oral anticoagulants (NOACs), Apixaban, Rivaroxaban, Dabigatran, and Savaysa for VTE treatment provide greater treatment efficacy and compliance because they do not possess the same limitations as Warfarin and they maintain a fast onset of action. Patients diagnosed with a low-risk VTE can now be immediately discharged home from the ED with outpatient NOAC treatment. However, not all low-risk VTE patients are appropriate for NOAC treatment. The purpose of this quality improvement (QI) project was to help clinicians determine which low-risk VTE patients are appropriate for immediate discharge from the ED with home treatment and which VTE patients require hospitalization.

METHODOLOGY

The project was divided into two phases. The first phase entailed the development of VTE management algorithms. The second phase involved follow-up phone interviews with patients discharged home from the ED with outpatient NOAC treatment to establish whether the patients endured any bleeding events or VTE recurrences.

RESULTS

From August 2017 to January 2018, nine patients were identified as having low-risk VTEs in the ED. Six of the nine patients (67%) were diagnosed with a deep vein thrombosis (DVT) and three patients (33%) were diagnosed with a pulmonary embolism (PE). Six of the nine patients (67%) participated in two follow-up phone interviews each, 1-2 weeks after diagnosis and again 4-6 weeks after diagnosis. Of the six who participated, none experienced any VTE recurrences or any major or clinically relevant bleeding events while on NOAC therapy during the six-week period. All patients reported following up with their primary physicians within one week after the ED visit and no patients missed any doses.

IMPLICATIONS

Providing a standardized tool to guide clinical decision making, like the VTE management algorithm, enables clinicians to practice safely and effectively.