Abstract

The purpose of this quality initiative was to utilize an interdisciplinary team to assess Georgetown University Hospital’s (GUH) adherence to national guidelines regarding venous thromboembolism (VTE) prevention. The team was composed of health administration and medical staff who worked closely with leaders in the Internal Medicine and Pharmacology departments. The review of VTE events that occurred in hospitalized patients at GUH in 2010 was conducted to determine if appropriate pharmacologic VTE prophylaxis was used. In addition, a concurrent chart review was performed to assess if appropriate prophylaxis was ordered for selected medical and surgical inpatients at GUH in March and April 2011. Overall, the rate of appropriate VTE prevention was poor. These findings suggest that a standard protocol may help guide practitioners toward compliance. The team plans to develop a universal inpatient VTE prophylaxis protocol to be integrated into the electronic medical record at GUH, as well as provide feedback to practitioners who are not compliant with current VTE prevention guidelines.

Methods

Phase One:

Retrospective chart review of all venous VTE events (pulmonary embolism and deep vein thrombosis) (DVT) diagnosed at Georgetown University Hospital between November 1, 2009 and November 30, 2010. Events were identified using the radiology department records. Using the pharmacy computer database, an analysis was conducted to determine if those inpatients diagnosed with a VTE event were on appropriate pharmacologic VTE prophylaxis at the time of diagnoses. Appropriate prophylaxis included heparin, enoxaparin, fondaparinux, argatroban, and warfarin at therapeutic or prophylactic dosages.

Phase Two:

Concurrent medical record review of in-patients in one surgical and one medical unit. Chart reviews of the paper and electronic medical record were performed weekly for five weeks from March 25, 2011 to April 20, 2011. Data collected included inpatient unit, active order for appropriate prophylaxis (as defined in phase 1), type of prophylaxis, presence of any contraindications, medical service, and attending physician. Accepted contraindications included pediatric (<18 yrs), active bleeding, coagulopathy (INR > 1.5), high platelet counts (less than 50) or platelet dysfunction, or patient refusal (see Figure 1). Data analysis was performed using Microsoft Excel.

Conclusions

- VTE prevention strategies at GUH have been variable and inadequate.
- Future directions include integrating a universal inpatient VTE prophylaxis protocol into the electronic medical record system at GUH to improve adherence to prophylaxis guidelines.
- Review each VTE on an ongoing basis to provide real-time feedback to clinicians.
- Develop a feedback mechanism for clinical teams whose patients develop VTE while on inappropriate prophylaxis.

References