**Background**

- Venous thromboembolism (VTE), including deep vein thrombosis (DVT) and pulmonary embolism (PE), is a preventable complication in hospitalized patients.
- These patients are at risk for developing VTE secondary to decreased mobility and various risk factors.
- Since January 2011, thromboprophylaxis is further supported by Accreditation Canada, which has added VTE prophylaxis as a Required Organizational Practice (ROP).
- A pre-printed order set specifically for VTE prophylaxis was implemented at Surrey Memorial Hospital in May 2011 to promote appropriate thromboprophylaxis based on risk assessment.

**Objectives**

- **Primary:** To compare proportion of medical patients receiving thromboprophylaxis before and after implementation of a pre-printed order set for VTE prophylaxis.
- To identify proportion of patients receiving thromboprophylaxis within 48 hours of admission.
- To identify types and frequencies of regimens used.
- To identify reasons for not initiating thromboprophylaxis.
- To identify frequency of treatment-related complications.

**Methods**

- Retrospective chart review performed for a pre-specified 4-week period before (Jan11) and after (Jan12) implementation of VTE prophylaxis PPO.
- Systematic sampling on every 10th medical patient admitted through emergency department at Surrey Memorial Hospital.
- Analysis: Chi-square test, descriptive statistics.

**Inclusion Criteria:**

- Adult (≥18 years old) medical patients admitted through emergency department at Surrey Memorial Hospital.
- Admission for ≥48 hours.

**Exclusion Criteria:**

- Patients admitted to surgical wards or who received surgery during hospital stay.
- Pregnant and postpartum patients.
- Patients admitted to psychiatric wards.
- Patients on anticoagulation prior to or on admission.

**Results**

- No difference in proportion of patients receiving thromboprophylaxis before (59.4%) and after (54.8%) PPO implementation (p = 0.72).
- Among patients who received prophylaxis, 84.2% (before) vs. 88.2% (after) were given prophylaxis within 48 hours of admission.
- Prior to PPO implementation, 84.2% of patients on prophylaxis received UFH.
- Following PPO implementation, 82.4% of patients on prophylaxis received LMWH.
- Most common reasons for not initiating thromboprophylaxis were active bleeding and low-risk stratification.
- Among patients not receiving prophylaxis, 84.6% (before) vs. 28.6% (after) did not have a documented reason for not initiating thromboprophylaxis.
- Potential adverse drug reactions documented included 1 major bleed and 1 minor bleed in both patient groups.

**Limitations**

- Retrospective chart review.
- Potential for incomplete documentation.
- Small sample size.
- VTE prophylaxis component embedded in other existing PPOs.

**Conclusions**

- VTE prophylaxis PPO did not increase proportion of thromboprophylaxis.
- A change in prescribing practice from UFH to LMWH use for VTE prophylaxis was observed since PPO implementation.
- Further communication and education campaign may help to minimize subjective variability in assessment of risk factors among physicians while completing VTE PPO.