Pharmacy interventions in venous thromboembolism prophylaxis in medical patients

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OBJECTIVES

Venous thrombosis and pulmonary embolism are potentially preventable causes of hospital related morbidity and mortality. Thromboprophylaxis is thought to be underused in medical inpatients.

PRETEMED guide\(^1\) is a risk assessment tool used to quantify the risk of venous thromboembolism (VTE) in medical inpatients. Our objective was to evaluate the appropriateness of VTE prophylaxis in medical inpatients and to describe Pharmacy Interventions to improve this therapy.

METHODS

- Cross-sectional study in a medical ward in a public hospital with 120 beds.
- VTE risk factors and VTE prophylaxis prescribed were assessed in patients admitted from the emergency department.
- Patients treated with low molecular weight heparin (LMWH), enoxaparin, with therapeutic indication were excluded.
- PRETEMED guide\(^1\) was used as a risk assessment to evaluate the appropriateness of the prophylaxis given to patients.

RESULTS

- 168 patients were analysed. 113 included in the study with indications for VTE prophylaxis.
- 60 of them (53%) were men, mean age 75 years old (SD=18.3).
- Mean age was 38.8 years (SD=9.1).

POPULATION:

| Discrepancies between VTE prophylaxis prescribed and PRETEMED guide recommendation |
|---|---|---|---|
| Treatment omission | No treatment indication | Overdoses | Total discrepancies |
| 36 | 8 | 5 | 49 |

VTE RISK (According to PRETEMED Guide)

- Low risk: 13%
- Moderate risk: 6%
- High risk: 81%

\(^1\)PRETEMED GUIDE:


CONCLUSION

In almost half of the patients included in the study the VTE prophylaxis prescriptions did not agree with the PRETEMED guide recommendations and most of them were related to treatment omission. Pharmacists improved patients’ therapy by working with the assistants’ team in making interventions that were mostly accepted.