VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS FOR HOSPITALIZED MEDICAL PATIENTS (HMP) WITH LOW MOLECULAR WEIGHT HEPARIN (LMWH)

F. Tátá1, M. Rebelo1, M. Pereira1, N. Landeira1, S. Fanica1, D. Silva1
1Hospital Espírito Santo Évora- EPE, Serviços Farmacêuticos, Évora, Portugal

PS-100

Background

VTE is a major public health problem in terms of mortality, morbidity and associated costs. The VITAE study estimates that in the European Union VTE is the cause of 540 000 deaths/year and that only 59% of hospitalized patients with risk factors (RF) are on prophylaxis. Prevention of VTE is one of the strategies most cost/effectiveness should therefore be a priority to improve patient safety. The medical patients are the most neglected in the prophylaxis in VTE, and there is no consensus on the FR.

Purpose

- Assess the risk of VTE in hospitalized medical patients based on risk factors, proposed by Cohen;
- Analyze the prescription of LMWH;
- Classify patients according to the prescription and the RF

Table 1. Classify patients according to the prescription and the RF

<table>
<thead>
<tr>
<th>Classification*</th>
<th>Prescription</th>
<th>Risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>with</td>
<td>without (or contraindicated)</td>
</tr>
<tr>
<td>b)</td>
<td>without</td>
<td>with</td>
</tr>
<tr>
<td>c)</td>
<td>Inadequate dose</td>
<td>with</td>
</tr>
<tr>
<td>d)</td>
<td>with</td>
<td>with</td>
</tr>
<tr>
<td>e)</td>
<td>without</td>
<td>without (or contraindicated)</td>
</tr>
</tbody>
</table>

- Accomplish pharmaceutical intervention in patients with rating a) b) c);
- Evaluate the need to develop a VTE Risk Assessment Model (RAM).

Methods

HMP were studied during 2 months in three services, of all 141 patients. Patients with anticoagulants in therapeutic dosage were excluded. The procedure followed is described in the flow chart:

<table>
<thead>
<tr>
<th>Physician</th>
<th>Pharmacists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Prescription</td>
<td>Prescription validation</td>
</tr>
<tr>
<td></td>
<td>Patient selection criteria</td>
</tr>
<tr>
<td></td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>end</td>
</tr>
<tr>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Analysis of medical history and prescription LMWH</td>
</tr>
<tr>
<td></td>
<td>Patients classified*</td>
</tr>
<tr>
<td></td>
<td>Patients a) b) c)</td>
</tr>
<tr>
<td></td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Register patient data in the database</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results

- The percentage of patients who, according to the analysis of the RF should be under prophylaxis for VTE presents summarized in Figure 1.
- Patients were classified according to the prescription and RF in 5 different categories(Figure 2).
- Pharmaceutical interventions were performed in 31.2% of prescriptions (patients with classification a) b) c)

Graph 1. Patients with TEV Risk factors

Graph 2. Patient Classification*

Graph 3. Risk Factors

- The different RF considered in the risk analysis for VTE present are summarized in Figure 3.4

Conclusion

Among patients who do not undergo prophylaxis (30%), a large number is due to the lack of consensus in relation to VTE prophylaxis in cancer patient, sick patient with dementia and patients in palliative care. Despite clinical guidelines for VTE prophylaxis in cancer patient (ESMO, ASCO, NCCN) are quite congruent between them, there is no consensus in relation to the RF to be considered in risk assessment. Pharmaceutical interventions were performed in 31.2% of prescriptions, of which 11.4% were effective. Contact with prescribers was mostly done via computer alert and may have been the cause of the reduced effectiveness of interventions. As clinicians do not follow a RAM of VTE, it is identified the need to develop a consensual model, based on previous reports, which allow the standardization of LMWH prescription.

References

1. F. Tátá, M. Rebelo, M. Pereira, etc. Consenso SEOM sobre la Enfermedad Tromboembólica en pacientes com Cáncer 2014