VTE Prophylaxis in Acute Surgical Patients

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Introduction

• Venous thromboembolism (VTE) is a condition in which blood clots form (most often) in the deep veins of the leg (known as deep vein thrombosis, DVT) and can travel in the circulation and lodge in the lungs (known as pulmonary embolism, PE). Together, DVT and PE are known as VTE – a dangerous and potentially deadly medical condition.

• The Trust local guidelines is (CP58) are derived from NICE guidelines for VTE prophylaxis (CG 92) ((Venous thromboembolism: reducing the risk for patients in hospital)).

• VTE prophylaxis include both mechanical and chemical depending on the patient risk factors and his clinical condition.
Method

- Patient admitted acutely into the SEU from 13 Aug to 19 Aug/2018 included in the audit
- Data collected from the patients notes, clinical web portal, Vital PAC and patients questioning.
- The data included:
  1. Gender & Wt.
  2. patient counselling( verbal & leaflet).
  3. 1\textsuperscript{st} VTE assessment, 2\textsuperscript{nd} VTE assessment timing.
  4. Clexane prescription and dose.
  5. TEDS application and timing.
- All result compared to the results from the 1\textsuperscript{st} cycle of the audit, conducted Nov 2017.
Results

- 40 patients who have been admitted to SEU---between 13 Aug- 19 Aug/2018.
- 23 males and 17 females
- 31 patients were informed about the VTE importance (1 only written), 6 were not counselled, 2 confused and 1 dementia.
VTE Assessment

- 25 patients had their 1\textsuperscript{st} VTEs done < 4 hrs, 15 had them > 4 hrs.
- 29 patients had their 2\textsuperscript{nd} VTEs < 24hrs, 11 had their > 24hrs.

\begin{itemize}
  \item 1\textsuperscript{st} VTE assessment
    \begin{itemize}
    \item Nov-17: 59\% \text{<4hrs}, 41\% \text{>4hrs}, 0\% \text{Not done}
    \item Aug-18: 63\% \text{<4hrs}, 37\% \text{>4hrs}, 0\% \text{Not done}
    \end{itemize}
  \item 2\textsuperscript{nd} VTE assessment
    \begin{itemize}
    \item Nov-17: 35\% \text{<24hrs}, 14\% \text{>24hrs}, 51\% \text{not done}
    \item Aug-18: 73\% \text{<24hrs}, 27\% \text{>24hrs}, 0\% \text{not done}
    \end{itemize}
\end{itemize}
Clexane Prescription

- 36 patients had Clexane prescribed, 4 didn’t (2 due to bleeding, one on Rivaroxaban and one with low plt).
- In 35 patients Clexane dose was correct as per body Wt, 1 had under-dose. (116kg—40 mg OD)
TEDs application

- 40 patients had their TEDs applied for them.
- 19 patients had them within 4 hrs, 21 after 4 hrs.
## Overall Adherence

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Re-audit</th>
<th>Audit</th>
<th>% Improvement</th>
<th>Standard</th>
<th>Traffic light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Counselling</td>
<td>78%</td>
<td>68%</td>
<td>15%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>1st VTE assessment&lt;4hr</td>
<td>63%</td>
<td>59%</td>
<td>7%</td>
<td>&gt;95%</td>
<td></td>
</tr>
<tr>
<td>2nd VTE assessment&lt;24 hr</td>
<td>73%</td>
<td>35%</td>
<td>108%</td>
<td>&gt;95%</td>
<td></td>
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<tr>
<td>Clexane prescription</td>
<td>100%</td>
<td>100%</td>
<td>----</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Correct Clexane dose</td>
<td>97%</td>
<td>82%</td>
<td>18%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>TEDS application</td>
<td>100%</td>
<td>100%</td>
<td>----</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>TEDS timing&lt;4hr</td>
<td>47%</td>
<td>56%</td>
<td>-16%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
Discussion

• Although the % of patients counselled improved from 65% to 75% still only one patient consented with written format.
• 1\textsuperscript{st} VTE assessment % didn’t improve, we think the reason is the time lapse between patient arrival on SAU and been seen by doctors.
• 2\textsuperscript{nd} VTE assessment have improved dramatically from 35% to 73%. More important is that the not done category reduced from 51% to 0%.
• Clexane dose prescribed correctly in all patients apart from one (improved from 13% to 3%).
• TEDs application timing got worse 47% from 56%--- can be related to the fact that patients wont be admitted in beds till after being clerked, bled, reassessed and decision been made for admission.( this can affect the 2\textsuperscript{nd} VTE timing too).
• Although there has been improved in most of the aspects of the Audit parameters, we are still missing our guidelines target.