

## **Overview and Problem Statement:**

Venous Thromboembolism (VTE) is a disease process that includes both Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE). DVT is caused by blood clots forming in the deep vein. 1/3 of the time, DVT may suddenly lead to PE which can be fatal. This is a disease that is difficult to diagnose, with DVT having diffuse symptoms that gets significantly more serious once the disease evolves to PE. The best treatment for this condition is to address it before it starts with prophylactic treatment.

However, the compliance rate in hospitals for clinicians prescribing evidence-based risk-appropriate prophylaxis has been historically low. This can stem from a lack of understanding about the importance of the tool. It can also come from differing opinions by attending physicians.

We propose to create a clinician performance evaluation tool that will give feedback to clinicians on how well they are compliant as well as allow them to view data on past prescriptions that were incorrect. The ultimate goal of this web tool is not only to hold clinicians accountable for prescribing risk-appropriate VTE prophylaxis, but also, as a tool to teach clinicians such that they understand the thought process behind the recommended prophylaxis intervention.

## **Requirements:**

1. Web based tool that can be accessed via a browser
2. Restricted access for only those with certain JHEDs
3. Calculate whether or not the prophylaxis prescribed by the clinician was risk-appropriate
4. Rank clinician adherence in the prescription of risk-appropriate prophylaxis among their peers
5. Provide a history of past clinician performance, both aggregated and individualized
6. Provide specific times when risk appropriate prophylaxis was not prescribed and what the correct prescription was
7. Provide an administrator view where the results of every clinician's results can be viewed

## **Use Cases:**

1. An administrator wants to hold clinicians accountable for prescribing risk-appropriate VTE prophylaxis. The administrator logs onto the web tool and observes the data to record statistics. They are then able to selectively communicate with individuals who need to be more compliant with prescribing risk-appropriate VTE prophylaxis.
2. A clinician logs on to the web tool to see how he or she compares to his or her peers as far as risk-appropriate VTE prophylaxis prescription goes. Additionally, the clinician is able to review historical data to see trends and see personal statistics during occurrences when VTE prescription was not risk appropriate, learning the thought process behind the evidence-based tool.