Identifying Barriers to Effective Heparin Titration for Treatment of Acute DVT at a Tertiary Medical Center

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Introduction
- Heparin infusions are first-line to treat acute DVT. aPTT is checked every 6-hours until 2 consecutive therapeutic results (goal aPTT 60-90) are obtained. Lab reports aPTT to EMR within 2 hours. Once reported, physicians change heparin dose order that is implemented by nursing staff.
- **Question:** how long does it take for heparin to be adjusted relative to the aPTT result?

Methods
- Retrospective chart review from Jan – Dec 2018
- Inclusive criteria: age >18, initial acute DVT on continuous heparin
- One sample t-test

Results
- 231 patients
- Average time to change heparin dose >7 hours (SD + 7.32, p<0.0001)

Conclusion
- **Answer:** it takes over 7 hours for heparin dose to be adjusted relative to the aPTT result reported.
- We need systems-based changes to improve therapeutic anti-coagulation to improve outcomes and decrease hospital length of stay.

Future direction:
- Identify areas for small change to yield bigger change (lab draws, communication, EMR reporting of subtherapeutic results)
- Trial nursing-drive heparin titration protocol with PDSA cycles