Appendix A: Survey Items

1. In what type of institution do you practice?
   a. Academic
   b. Community (Non-Academic)
   c. State or Federal Agency (e.g. VA)
   d. Other (please specify):

2. What is the name of your institution?
   a. Open Response

3. What is your profession?
   a. Physician (MD, DO)
   b. Advanced Practice Provider (APP)
   c. Pharmacist (PharmD, RPh)
   d. Other (please specify):

4. What is your institution’s state or regional trauma level designation?
   a. Level I
   b. Level II
   c. Level III
   d. Level IV

5. Is your trauma center verified by the American College of Surgeons Committee On Trauma?
   a. Yes
   b. No

6. What is your institution’s ACS trauma level designation?
   a. Level I
   b. Level II
   c. Level III

7. In what geographic location is your institution located?
   a. Northeast (CT, MA, ME, NH, NJ, NY, PA, RI, VT)
   b. Midwest (IN, IL, IO, KS, MI, MN, MO, ND, NE, OH, SD, WI)
   c. South (AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV)
   d. West (AK, AZ, CA, CO, HI, ID, NM, MT, NV, OR, UT, WA, WY)

8. How many years have you been in practice since completing your training (e.g. residency, fellowship)?
   a. < 2 years
   b. 2-5 years
   c. 6-10 years
   d. > 10 years

9. Do you have a protocol or clinical practice guideline in place related to VTE prophylaxis in trauma patients at your institution?
   a. Yes
   b. No

10. Do you round with a clinical pharmacist on your trauma teams?
    a. Yes
    b. No

11. At your institution, what is the standard dosing regimen for VTE prophylaxis in non-obese (BMI < 30) trauma patients with normal renal function (CrCl ≥ 30 mL/min)?
    a. Enoxaparin 30 mg SubQ q12h
    b. Enoxaparin 40 mg SubQ q24h
    c. Enoxaparin 40 mg SubQ q12h
    d. Enoxaparin 0.5 mg/kg SubQ q12h
    e. Unfractionated heparin 5,000 units SubQ q8h
    f. Unfractionated heparin 5,000 units SubQ q12h
Appendix A: Survey Items

g. Other (please specify):

12. At your institution, what is the standard agent and dosing regimen for VTE prophylaxis in non-obese (BMI < 30) trauma patients with renal impairment (i.e. CrCl < 30 mL/min)?
   a. Enoxaparin 30 mg SubQ q12h
   b. Enoxaparin 40 mg SubQ q24h
   c. Enoxaparin 40 mg SubQ q12h
   d. Enoxaparin 0.5 mg/kg SubQ q12h
   e. Unfractionated heparin 5,000 units SubQ q8h
   f. Unfractionated heparin 5,000 units SubQ q12h
   g. Other (please specify):

13. Do you **routinely** dose adjust enoxaparin in overweight or obese, adult, trauma patients?
   a. Yes
   b. No

14. Do you **routinely** dose adjust enoxaparin in overweight or obese patients based on BMI?
   a. Yes
   b. No

15. At what BMI do you dose adjust (i.e. increase) from your standard enoxaparin dose?
   a. BMI 30 to < 35
   b. BMI 36 to < 40
   c. BMI ≥ 40
   d. Other (please specify):

16. Do you **routinely** dose adjust enoxaparin to patients based on total body weight?
   a. Yes
   b. No

17. At what total body weight (kg) do you dose adjust (i.e. increase) from your standard enoxaparin dose?
   a. ≥ 90 kg
   b. ≥ 100 kg
   c. ≥ 110 kg
   d. ≥ 120 kg
   e. Other (please specify):

18. What dose of enoxaparin for VTE prophylaxis do you recommend in overweight or obese, adult, trauma patients? Assume your institution's protocol or guideline for defining when dose adjustment is required.
   a. Open Response

19. Do you **routinely** dose adjust enoxaparin for VTE prophylaxis for all trauma patients (obese and non-obese) based on anti-xa levels?
   a. Yes
   b. No

20. Do you **routinely** dose adjust enoxaparin for VTE prophylaxis in overweight or obese trauma patients based on anti-xa levels?
   a. Yes
   b. No

21. When monitoring anti-xa levels with enoxaparin for VTE prophylaxis, what type of level do you monitor?
   a. Peak (sent 3-5 hours after enoxaparin dose)
   b. Trough (sent 30 min prior to next enoxaparin dose)
   c. Other (please specify):

22. When monitoring anti-xa levels for enoxaparin do you wait until the medication is at steady state to check a level (i.e. after at least 3 doses)?
   a. Yes
   b. No
Appendix A: Survey Items

23. What is your target peak anti-xa level with enoxaparin for VTE prophylaxis in adult trauma patients? (please specify value or range)
   a. Open Response

24. What is your target trough anti-xa level with enoxaparin for VTE prophylaxis in adult trauma patients? (please specify value or range)
   a. Open Response

25. Based on the anti-xa level, do you make dose adjustments to the patient’s enoxaparin dose for VTE prophylaxis?
   a. Yes
   b. No

26. What is your protocol for how to adjust the enoxaparin dose for VTE prophylaxis based on anti-xa level? (i.e. If the level is above range how do you adjust? If the level is below the target range how do you adjust?) Please specify.
   a. Open Response

27. Do you routinely screen asymptomatic trauma patients for VTE with Duplex Ultrasound?
   a. Yes
   b. No

28. How often do you screen asymptomatic trauma patients for VTE with Duplex Ultrasound?
   a. Every 7 days
   b. Every 10 days
   c. Every 14 days
   d. Other (please specify number of days):

29. Do you routinely discharge patient populations at high risk for VTE (orthopedic trauma, spinal cord injury etc.) on extended durations of DVT prophylaxis?
   a. Yes
   b. No

30. What patient populations do you recommend extended VTE prophylaxis post-hospital discharge? Select all that apply.
   a. Spinal cord injuries with neurologic deficits
   b. Non-weight bearing status to bilateral lower extremities
   c. Non-weight bearing status to one lower extremity
   d. Pelvic fracture
   e. Other (please specify criteria):

31. What VTE prophylaxis medication do you provide at discharge for extended VTE prophylaxis in high risk patients? Select all that apply if you use more than one medication based on patient insurance, compliance concerns, or other patient specific factors.
   a. Aspirin 81 mg PO daily
   b. Aspirin 81 mg PO BID
   c. Aspirin 325 mg PO daily
   d. Aspirin 325 mg PO twice daily
   e. Enoxaparin 30 mg SubQ BID
   f. Warfarin (titrated to maintain an INR 2-3)
   g. Other (please specify):

32. What duration of extended VTE prophylaxis in patients at high risk for VTE do you recommend post-hospital discharge?
   a. 7 days
   b. 14 days
   c. 21 days
   d. 1 month
Appendix A: Survey Items

e. 3 months
f. Varies based on the indication for extended DVT prophylaxis
g. Other (please specify number of days or months):

33. Do you have a standard protocol or guideline to guide timing of initiation of chemical VTE prophylaxis in patients with traumatic brain injuries?
   a. Yes
   b. No
   c. No standard practice; initiation is based on consultant recommendations (i.e. neurosurgery)

34. Most of the time, what is your routine practice for initiation of chemical VTE prophylaxis (enoxaparin or low-dose unfractionated heparin) in the following trauma patient populations with traumatic brain injury?

<table>
<thead>
<tr>
<th></th>
<th>&lt; 24 hours post stable head CT</th>
<th>24 hours post stable head CT</th>
<th>48 hours post stable head CT</th>
<th>72 hours post stable head CT</th>
<th>4 - 5 days post stable head CT</th>
<th>6 - 7 days post stable head CT</th>
<th>&gt; 7 days post stable head CT</th>
<th>No chemical prophylaxis recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW risk traumatic brain injury (TBI)</td>
<td>&lt; 24 hours post stable head CT</td>
<td>24 hours post stable head CT</td>
<td>48 hours post stable head CT</td>
<td>72 hours post stable head CT</td>
<td>4 - 5 days post stable head CT</td>
<td>6 - 7 days post stable head CT</td>
<td>&gt; 7 days post stable head CT</td>
<td>No chemical prophylaxis recommended</td>
</tr>
<tr>
<td>HIGH risk traumatic brain injury (TBI)</td>
<td>&lt; 24 hours post stable head CT</td>
<td>24 hours post stable head CT</td>
<td>48 hours post stable head CT</td>
<td>72 hours post stable head CT</td>
<td>4 - 5 days post stable head CT</td>
<td>6 - 7 days post stable head CT</td>
<td>&gt; 7 days post stable head CT</td>
<td>No chemical prophylaxis recommended</td>
</tr>
<tr>
<td>Presence of EVD or ICP monitor</td>
<td>&lt; 24 hours post stable head CT</td>
<td>24 hours post stable head CT</td>
<td>48 hours post stable head CT</td>
<td>72 hours post stable head CT</td>
<td>4 - 5 days post stable head CT</td>
<td>6 - 7 days post stable head CT</td>
<td>&gt; 7 days post stable head CT</td>
<td>No chemical prophylaxis recommended</td>
</tr>
<tr>
<td>Status post Craniotomy or Cranietomy</td>
<td>&lt; 24 hours post stable head CT</td>
<td>24 hours post stable head CT</td>
<td>48 hours post stable head CT</td>
<td>72 hours post stable head CT</td>
<td>4 - 5 days post stable head CT</td>
<td>6 - 7 days post stable head CT</td>
<td>&gt; 7 days post stable head CT</td>
<td>No chemical prophylaxis recommended</td>
</tr>
</tbody>
</table>

35. Do you have a standard protocol or guideline to guide timing of initiation of chemical VTE prophylaxis in patients with traumatic solid organ injuries?
   a. Yes
   b. No

36. Most of the time, what is your routine practice for initiation of chemical VTE prophylaxis (enoxaparin or low-dose unfractionated heparin) in the following trauma patient populations with solid organ injuries? Assume no active or ongoing bleeding.

<table>
<thead>
<tr>
<th></th>
<th>&lt; 24 hours post injury</th>
<th>24 hours post injury</th>
<th>48 hours post injury</th>
<th>72 hours post injury</th>
<th>4 - 5 days post injury</th>
<th>6 - 7 days post injury</th>
<th>&gt; 7 days post injury</th>
<th>No chemical prophylaxis recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild solid organ injuries (grades 1&amp;2)</td>
<td>&lt; 24 hours post injury</td>
<td>24 hours post injury</td>
<td>48 hours post injury</td>
<td>72 hours post injury</td>
<td>4 - 5 days post injury</td>
<td>6 - 7 days post injury</td>
<td>&gt; 7 days post injury</td>
<td>No chemical prophylaxis recommended</td>
</tr>
<tr>
<td>Moderate solid organ injuries (grade 3)</td>
<td>&lt; 24 hours post injury</td>
<td>24 hours post injury</td>
<td>48 hours post injury</td>
<td>72 hours post injury</td>
<td>4 - 5 days post injury</td>
<td>6 - 7 days post injury</td>
<td>&gt; 7 days post injury</td>
<td>No chemical prophylaxis recommended</td>
</tr>
<tr>
<td>Severe solid organ injuries (grades 4&amp;5)</td>
<td>&lt; 24 hours post injury</td>
<td>24 hours post injury</td>
<td>48 hours post injury</td>
<td>72 hours post injury</td>
<td>4 - 5 days post injury</td>
<td>6 - 7 days post injury</td>
<td>&gt; 7 days post injury</td>
<td>No chemical prophylaxis recommended</td>
</tr>
</tbody>
</table>
Appendix A: Survey Items

37. Do you have a standard protocol or guideline to guide timing of initiation of chemical VTE prophylaxis in patients with traumatic spinal cord fractures (with or without cord involvement)?
   a. Yes
   b. No

38. Most of the time, what is your routine practice for initiation of chemical VTE prophylaxis (enoxaparin or low-dose unfractionated heparin) in patients with spinal cord fractures (with or without cord involvement) requiring fixation? Assume no active or ongoing bleeding.
   a. < 24 hours post fixation (i.e. immediately post-operative)
   b. 24 hours post fixation
   c. 48 hours post fixation
   d. 72 hours post fixation
   e. 4 - 5 days post fixation
   f. 6 - 7 days post fixation
   g. > 7 days post fixation
   h. No chemical prophylaxis is recommended