Supplemental Appendix 2: Risk Assessment Survey

Please complete the survey below.

Thank you!

Thank you for participating in this survey assessing your management of obstetric patients taking anticoagulant medications for venous thromboprophylaxis.

This survey is in three parts. We greatly appreciate your participation and input.

Instructions:

In Part 1, you will be asked to report the rate at which you believe an event is likely to occur. Although you could express this rate in many different ways, we ask that you report it as occurrences per million (1,000,000) procedures.

For example:

Question: How many coin flips would you expect to come up 'heads' if a coin were flipped 1,000,000 times?

- The number of heads could be as low as?
- The number of heads could be as high as?

The best guess is that 1,000,000 coin flipping procedures should result in 500,000/1,000,000 (50%) 'heads'.

- Low: In this case, based on chance, the number of heads could be as low as 400,000/1,000,000
- High: In this case, based on chance, the number of heads could be as high as 600,000/1,000,000

Now, we are going to ask you more difficult questions that require your clinical intuition to answer. For the following questions, please express your response as the number of women who would experience the event for each million (1,000,000) procedures.

If you are confident in your answers, then your "as low as" and "as high as" numbers will be close together. The more doubt you have, the greater the difference will be between these numbers.

PART 1
Recent reports suggest that the spinal/epidural hematoma rate is 3-4 per 1,000,000 after neuraxial analgesia/anesthesia among otherwise healthy obstetric patients (normal renal function, weight > 40 kg) NOT receiving an anticoagulant.

In non-obese pregnant women receiving pharmacological thromboprophylaxis [unfractionated heparin (UFH) or low molecular weight heparin (LMWH), subcutaneous (SC)]:

1. How many additional women, if any, would be likely to have an epidural hematoma if:

a. They received a neuraxial anesthetic more than 6 hours after their 5000 U bid UFH SC dose? _____

b. This number could be as low as? _____

c. This number could be as high as? _____

IF THE TIME SINCE LAST DOSE DECREASES:

2. How many additional women, if any, would be likely to have an epidural hematoma if:

a. They received a neuraxial anesthetic within 6 hours of their 5000U bid UFH SC dose? _____

b. This number could be as low as? _____

c. This number could be as high as? _____

IF THE DOSE INCREASES:

3. How many additional women, if any, would be likely to have an epidural hematoma if:

a. They received a neuraxial anesthetic more than 6 hours after their 7500 U bid UFH SC dose? _____

b. This number could be as low as? _____

c. This number could be as high as? _____

IF THE TIME SINCE LAST DOSE DECREASES:

4. How many additional women, if any, would be likely to have an epidural hematoma if:

a. They received a neuraxial anesthetic within 6 hours of their 7500U bid UFH SC dose? _____

b. This number could be as low as? _____

c. This number could be as high as? _____

WITH LOW MOLECULAR WEIGHT HEPARIN (LMWH):

5. How many additional women, if any, would be likely to have an epidural hematoma if

a. They received a neuraxial anesthetic more than 12 hours after a daily low dose of LMWH (Enoxaparin < 60 mg, daily SC) _____

b. This number could be as low as? _____

c. This number could be as high as? _____

IF THE TIME SINCE LAST DOSE DECREASES:

6. How many additional women, if any, would be likely to have an epidural hematoma if:

a. They received a neuraxial anesthetic 10 hours after a daily low dose of LMWH (Enoxaparin < 60mg daily SC) _____

b. This number could be as low as? _____

c. This number could be as high as? _____

PART 2. CLINICAL SCENARIOS

Unless otherwise specified, please consider all patients to have normal renal function, body weight > 40kg, and to be informed by you of the risks and benefits of neuraxial analgesia and anesthesia options.

Question 1.
A 40 year old, healthy, non-obese, multiparous woman at 5 cm dilation is requesting a labor epidural analgesic.

1A. She received the last dose of 5000U BID UFH SC thrombopropylaxis within 6 hours:

Would you place the labor epidural now without delay?
◯ Yes
◯ No

Would you require an aPTT before placing the epidural?
◯ Yes
◯ No

Would you place the epidural without delay with a normal aPTT value that was taken last month within 6 hours of the same UFH dose?
◯ Yes
◯ No

Would you place the epidural without delay with an anti-factor Xa level < 0.1 (or appropriate level in your department) that was taken last month within 6 hours of the same UFH dose?
◯ Yes
◯ No

Question 2.
A 40 year old primiparous woman with an unfavorable airway, BMI > 40, is requesting a labor epidural analgesic at 3 cm of cervical dilatation. The fetal heart rate monitoring is showing a Category II tracing.

2A. She received the last dose of 5000U BID UFH SC thrombopropylaxis within 6 hours:

Would you place the labor epidural now without delay?
◯ Yes
◯ No

Would you delay placement to draw and see the result of an aPTT?
◯ Yes
◯ No

Would you place the epidural without delay with a normal aPTT value that was taken last month within 6 hours of the same UFH dose?
◯ Yes
◯ No

Would you place her labor epidural without delay with an anti-factor 10-a level < 0.1 (or appropriate level in your department) that was taken last month within 6 hours of the same dose?
◯ Yes
◯ No

IF THE DOSE INCREASES

2B. She received an increased UFH SC dose (7500 BID) within the last 6 hours:

Would you place her labor epidural now without delay?
◯ Yes
◯ No

Would you delay placement to draw and see the result of an aPTT?
◯ Yes
◯ No

Would you place her labor epidural without delay with a normal aPTT value that was taken last month within 6 hours of the same dose?
◯ Yes
◯ No

Would you place her labor epidural without delay with an anti-factor Xa level < 0.1 (or appropriate level in your department) that was taken last month within 6 hours of the same dose?
- ◯ Yes
- ◯ No

IF THE DOSE INCREASES

2C. If she received an increased UFH SC dose (10,000 BID) within the last 6 hours:

Would you place her labor epidural now without delay?
- ◯ Yes
- ◯ No

Would you delay placement to draw and see the result of an aPTT value?
- ◯ Yes
- ◯ No

Would you place her labor epidural without delay with a normal aPTT value that was taken last month within 6 hours of the same dose?
- ◯ Yes
- ◯ No

Would you place her labor epidural without delay with an anti-factor Xa level < 0.1 (or appropriate lowest detectable level in your department) that was taken last month within 6 hours of the same dose?
- ◯ Yes
- ◯ No

WITH LOW MOLECULAR WEIGHT HEPARIN (LMWH):

2D. She received a LMWH dose (enoxaparin 60mg daily SC) less than 10 hours ago:

Would you place her labor epidural now without delay?
- ◯ Yes
- ◯ No

If not, would an anti-factor Xa level < 0.1 (or appropriate lowest detectable level in your department) within 8 hours of the dose that was taken last month convince you to place her labor epidural without delay?
- ◯ Yes
- ◯ No

Question 3.

A 34 year old multiparous woman with an unfavorable airway, BMI>40, just received a cervical ripening agent and now has a persistent category II tracing. Your obstetric colleagues tell you that the baby is large and given the tracing, they are concerned that successful vaginal birth is not feasible. They decide to move to urgent cesarean delivery, and specifically communicate that they would like to make incision within 10 minutes.

3A. She received the last dose of 5000U UFH BID SC thrombopropylaxis within 6 hours:

Would you place a neuraxial anesthetic now without delay?
- ◯ Yes
- ◯ No

3B. She received a LMWH dose (enoxaparin 60mg daily SC) 10 hours ago:

Would you place a neuraxial anesthetic now without delay?
- ◯ Yes
- ◯ No

Part 3 RISK ASSESSMENT

This section is about what we call "competing risks."
Imagine that your department rolls out a quality improvement training program.

Each physician assigns "risk points" based on his or her evaluation of risks/benefits of service-specific clinical decisions.
An example might be if you are trying to weigh the relative risks and benefits of using an LMA versus an ETT in a pregnant patient for general anesthesia for D&E who is at 18 weeks gestation.

If you decided the two options were of equal risk/benefit, then you would assign each 50 points.
If you thought that the risk of aspiration was greater with the LMA than the ETT, and that this was an important factor in this scenario, you might assign "80" risk points to the LMA and "20" risk points to the ETT.

Now please consider this scenario:
A 40 year old primiparous woman with an unfavorable airway, BMI > 40, is requesting a labor epidural analgesic at 3cm of cervical dilation. The fetal heart rate monitor is showing a Category II tracing.
She is receiving UFH thromboprophylaxis (5000U bid SC), and the last dose was within 6 hours.

TOTAL RISK FOR THIS EVENT MUST EQUAL ONE HUNDRED (100) POINTS:

1) How many risk points of the 100 would you assign to placing a labor epidural now? _____

2) How many risk points of the 100 would you assign to NOT placing a labor epidural now? _____

3) Would you place a labor epidural now without delay?
◯ Yes
◯ No

Thank you for participating in this important aspect of our VTE taskforce. We look forward to discussing the results with you.
If you have any questions, please contact either:
Lisa Leffert: lleffert@partners.org
Ruth Landau: rl262@cumc.columbia.edu