

## Anticoagulants and Neuraxial Anesthesia

Anticoagulants for VTE prophylaxis			
Medication	Prior to neuraxial anesthesia	With Neuraxial catheter in place	After spinal or epidural catheter removal
Enoxaparin (Lovenox®) 30mg SQ BID 40mg SQ daily	12 hours	Only with enoxaparin 40mg once daily	4 hours
Fondaparinux (Arixtra®) 2.5mg SQ daily	5 days	contraindicated	6 hours
Heparin, Unfractionated 5000 units BID/TID	4 hours	Monitor platelets if >4 days of therapy	1 hour
Heparin, Unfractionated 7500-10000 units BID/TID	See algorithm at for OB patients at the bottom of the tables		
Apixaban (Eliquis®) 2.5mg BID	3 Days*	Contraindicated	6 hours
Rivaroxaban (Xarelto®) 10mg daily	3 days*	contraindicated	6 hours
Betrixaban (Bevyxxa®) 80-160mg QD	3 Days*	Contraindicated	6 hours

\*Patients with significant renal disease may require waiting 5 days

Anticoagulants at Therapeutic doses			
Medication	Prior to neuraxial anesthesia	With Neuraxial catheter in place	After spinal or epidural catheter removal
Apixaban (Eliquis®) 2.5-10mg BID	3 Days*	Contraindicated	6 hours
Rivaroxaban (Xarelto®) 15-20mg QD or BID	3 days*	Contraindicated	6 hours
Edoxaban (Savaysa®) 30-60mg daily	3 days*	Contraindicated	6 hours
Dabigatran (Pradaxa®) 75-150mg BID	5 Days**	Contraindicated	6 hours
Enoxaparin (Lovenox®) 1mg/kg BID or 1.5mg/kg QD	24 hours	Contraindicated	4 hours
Fondaparinux (Arixtra®) 5-10mg QD	5 days	Contraindicated	6 hours
Heparin IV infusion	When PTT <40	Heparinization should be delayed >1hour after catheter placement	1 hour
Warfarin	Initiation of therapy: INR<1.5 Discontinuation of therapy: 5 days and INR normal	Daily INR check, should be removed when INR <1.5	No Delay

\*Patients with significant renal disease may require waiting 5 days

\*\* Patients with significant renal disease may require waiting 6 days

GP2b3A Inhibitors			
Medication	Prior to neuraxial anesthesia	With Neuraxial catheter in place	After spinal or epidural catheter removal
Abcixamab (Reopro®)	48 hours	Contraindicated	12 hours
Eptifibatide (Integrellin®)	8 hours	Contraindicated	12 hours
Tirofiban (Aggrostat®)	8 hours	Contraindicated	12 hours

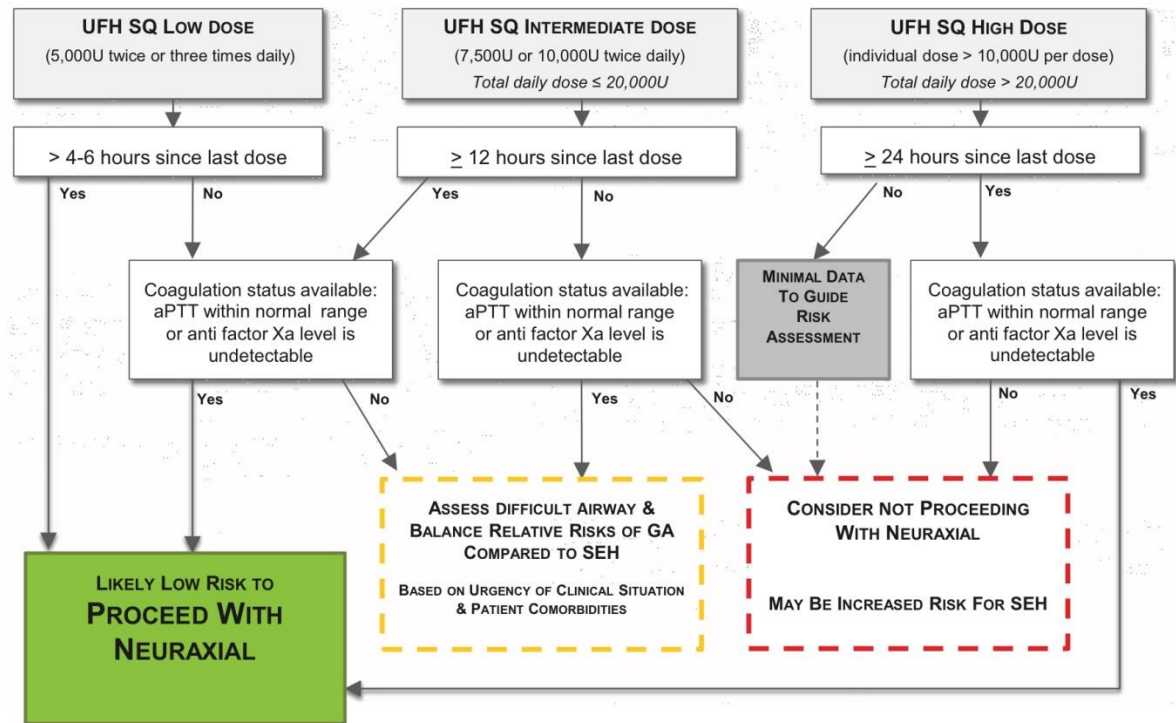
Direct Thrombin Inhibitors			
Medication	Prior to neuraxial anesthesia	With Neuraxial catheter in place	After spinal or epidural catheter removal
Argatroban	When PTT <40	Contraindicated	4 hours
Bivalirudin (Angiomax®)	When PTT <40	Contraindicated	4 hours

Antiplatelet agents			
Medication	Prior to neuraxial anesthesia	With Neuraxial catheter in place	After spinal or epidural catheter removal
Aspirin/NSAIDs	No contraindication	No contraindication	No contraindication
Aspirin/dipyridamole (Aggrenox®)	2 Days	Contraindicated	6 hours
Clopidogrel (Plavix®)	7 days	Contraindicated	6 hours
Prasugrel (Effient®)	10 Days	Contraindicated	6 hours
Ticlopidine (Ticlid®)	10 days	Contraindicated	6 hours
Ticagrelor (Brilinta®)	7 Days	Contraindicated	6 hours
Cangrelor	3 hours	Contraindicated	24 hours

Thrombolytic agents			
Medication	Prior to neuraxial anesthesia	With Neuraxial catheter in place	After spinal or epidural catheter removal
Alteplase 2mg for catheter clearance Max: 4mg/day	No contraindication	Contraindicated	No contraindications
Alteplase Full dose	10 days	Contraindicated	10 Days

Other Anticoagulants			
Medication	Prior to neuraxial anesthesia	With Neuraxial catheter in place	After spinal or epidural catheter removal
Cilostazol (Pletal®)	2 days	Contraindicated	NA
Vorapaxar (Zontivity®)	Contraindicated	Contraindicated	NA

## Algorithm for intermediate and high dose SQ heparin for the Obstetric Patient



**Figure 3.** Decision aid for urgent or emergent neuraxial procedures in the obstetric patient receiving UHF. \*Assume normal renal function, body weight > 40 kg, and no other contraindications to neuraxial anesthesia. aPTT indicates activated partial thromboplastin time; GA, general anesthesia; SEH, spinal epidural hematoma; SQ, subcutaneous; UHF, unfractionated heparin. Note: This SOAP consensus statement is not intended to set out a legal standard of care and does not replace medical care or the judgment of the responsible medical professional considering all the circumstances presented by an individual patient.