

University of Washington Medical Center (UWMC)

ANTICOAGULATION GUIDELINES FOR NEURAXIAL PROCEDURES Guidelines to Prevent Spinal Hematoma following Epidural/Intrathecal/Spinal Procedures and

Perineural Hematoma following Peripheral Nerve Procedures

ATTENTION! WHEN CAN YOU SAFELY DO NEURAXIAL/PERIPHERAL NERVE PROCEDURES OR GIVE ANTICOAGULANTS? Neuraxial routes include epidural and intrathecal infusions, implanted intrathecal pumps, and spinal injections. Peripheral routes include all peripheral nerve and plexus infusions. NOTE: Bloody tap∕procedure? Anesthesia to call Pain Service

MEDICATION

PRIOR TO NEURAXIAL/NERVE PROCEDURE

Minimum time between last dose of anticoagulant and spinal injection OR neuraxial/nerve catheter placement

WHILE **NEURAXIAL/NERVE CATHETER IN PLACE**

Restrictions on use of anticoagulants in patients with neuraxial/nerve catheters in place

AFTER NEURAXIAL/NERVE PROCEDURE

Minimum time between neuraxial/nerve catheter removal OR spinal/nerve injection and next anticoagulánt dose

ANTICOAG	BULANTS	FOR VTE	PROPHYL	AXIS
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heparin unfractionated 5000 units q8 or q12 hr	May be given; no time restrictions for catheter placement/removal or spinal injections Do NOT call Pain Service			
heparin unfractionated 7500 units SQ q8 hr	8 hrs	CONTRAINDICATED while catheter in place: may NOT be given unless approved by Pain Service Attending	2 hrs	
dalteparin (Fragmin) 5000 units SQ qday	12 hrs (longer in renal impairment)	May be given BUT contact Pain Service regarding dose timing •Must wait 6-8 hrs after catheter	2 hrs	
enoxaparin (Lovenox) 40mg SQ qday	,	PLACEMENT before giving dose •Must wait 18-24 hours after last dose before REMOVING catheter		
enoxaparin (Lovenox) 30mg SQ q12 hr or 40mg SQ q12 hr	12 hrs (longer in renal impairment)	CONTRAINDICATED while catheter in place: may NOT be given unless approved	2 hrs	
fondaparinux (Arixtra) < 2.5mg SQ qday	48 hrs (longer in renal impairment)	by Pain Service Attending		
rivaroxaban (Xarelto) 10mg po qday	18 hrs (longer in renal impairment)	May be given BUT contact Pain Service regarding dose timing •Must wait 6-8 hrs after catheter PLACEMENT before giving dose	6 hrs (per manufacturer recommendations)	
		•Must wait 18-24 hours after last dose before REMOVING catheter		

AGENTS USED FOR FULL SYSTEMIC ANTICOAGULATION

AGENTO COED I ONT CEE CTOTE IIII O ANTICOA COEATION				
dabigatran (Pradaxa)	72 hrs (longer in renal impairment)			
dalteparin (Fragmin) 200 Units/kg SQ qday or 100 Units/kg SQ q12 hr	24 hrs (longer in renal impairment)	CONTRAINDICATED while catheter in place: may NOT be given	2 hours	
drotrecogin (Xigris)	24 hrs (longer in renal impairment)	unless approved by Pain Service Attending		
enoxaparin (Lovenox) 1.5mg/kg SQ qday or 1mg/kg SQ q12h	24 hrs (longer in renal impairment)	Tain bervice Attending		
fondaparinux (Arixtra) 5-10mg SQ qday	72 hrs (longer in renal impairment)			
heparin unfractionated IV continuous infusion or >5000 Units SQ bid or tid	when aPTT<40 sec			
warfarin (Coumadin)	when INR< 1.5			

Use with UWMC Nursing Epidural Policy and Procedure (Sheryl Wyant), UWMC Anticoagulation Services www.uwmcacc.org (Ann Wittkowsky), Acute Pain Service (Dermot Fitzgibbon) and on line Clinical Toolkit: depts.washington.edu/medical/clinicalresources (Tom Staiger). Reference: Horlocher TT et al. Regional anesthesia in the patient receiving antithrombotic or thrombolytic therapy. American Society of Regional Anesthesia and Pain Medicine Evidence-Based Guidelines (third edition). Reg Anesth Pain Med 2010; 35:64-101.

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Neuraxial routes include epidural and intrathecal infusions, implanted intrathecal pumps, and spinal injections.

Peripheral routes include all peripheral nerve and plexus infusions. NOTE: Bloody tap/procedure? Anesthesia to call Pain Service

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WHILE NEURAXIAL/NERVE CATHETER IN PLACE

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AFTER NEURAXIAL/NERVE PROCEDURE

Minimum time between neuraxial/nerve catheter removal OR spinal/nerve injection and next anticoagulant dose

DIRECT THROMBIN INHIBITORS

argatroban
IV continuous infusion

bivalirudin (Angiomax) IV continuous infusion

lepirudin (Refludan) IV continuous infusion

when DTI assay < 40 or aPTT < 40 sec

CONTRAINDICATED
while catheter in place:
may NOT be given
unless approved by
Pain Service Attending

2 hours

ANTIPLATELET AGENTS

Aspirin/NSAIDS	May be given; no time restrictions for catheter placement or removal Do NOT call Pain Service		
abciximab (Reopro)	48 hrs	CONTRAINDICATED	
clopidogrel (Plavix)	7 days	CONTRAINDICATED while catheter in place:	2 hours
eptifibatide (Integrelin)	8 hrs (longer in renal impairment) may NOT be given		2 110015
prasugrel (Effient)	7 days	unless approved by Pain Service Attending	
tirofihan (Aggrastat)	8 hrs (longer in renal impairment)	- Tani Gor vice / talenamig	

THROMBOLYTIC AGENTS

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	alteplase (TPA) 2mg dose for catheter clearance	May be given; no time restrictions for catheter placement or removal (Maximum dose 4mg/24 hours)		
	alteplase (TPA) full dose for stroke, MI, etc	10 days	CONTRAINDICATED while catheter in place: may NOT be given unless approved by Pain Service Attending	10 days

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