

**VCMC Clinical Practice Guideline for Anticoagulant Management Around Epidural/Intrathecal/Lumbar Puncture**

*The contents of this CPG are to be used as a guide. Healthcare professionals should use sound clinical judgment and individualize patient care.  
This CPG is not meant to be a replacement for training, experience, CME, or studying the latest literature and drug information.*

Anticoagulant Agent	Minimum Time Between Anticoagulant Dose and Insertion of Spinal Needle or Placement of Epidural Catheter	Minimum Time Between Placement of Epidural Catheter or Spinal Needle and Anticoagulant Dose	Minimum Time Between Anticoagulant Dose and Removal of the Epidural Catheter	Minimum Time Between Removal of the Epidural Catheter and Anticoagulant Dose
<b>Therapeutic Anticoagulation</b>				
<b>Unfractionated Heparin (UFH), Therapeutic dose (IV or SQ) †</b>	aPTT < 40 seconds and >2-4 hours post-IV infusion or > 12 hours post therapeutic SQ dose	24 hours after catheter is placed	aPTT < 40 seconds and > 2-4 hours post IV infusion or > 12 hours post SQ therapeutic dose	6-8 hours **
<b>Enoxaparin, Therapeutic dose 1 mg/kg q 12 h</b>	24 hours	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	6-8 hours **
<b>Enoxaparin, Therapeutic dose 1.5 mg/kg q 24 h</b>	30 hours	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	6-8 hours **
<b>Fondaparinux therapeutic or prophylactic doses</b>	36 to 48 hours	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	6-8 hours **
<b>Coumadin</b>	5 days ‡ AND INR must be ≤ 1.4	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	24 hours
<b>Prophylactic Anticoagulation</b>				
<b>Enoxaparin, Prophylactic dose 40 mg SQ q 24 h</b>	12 hours	6-8 hours post-op or 8 hours after dural puncture	12 hours	2 hours
<b>Enoxaparin, Prophylactic dose 30 mg SQ q 12 h</b>	12 hours	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	2 hours, AND 24 hours after catheter was placed
<b>Unfractionated Heparin (UFH), Subcutaneous Prophylactic Dose (5,000 Units q 12 h with SCDs) †</b>	No time restriction but ideally 8 hours	2 hours	4 hours	2 hours
<b>Unfractionated Heparin (UFH), Subcutaneous Prophylactic Dose (5,000 Units q 8 h) †</b>	No time restriction though ideally 8 hours	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	2 hours
<b>Antiplatelet Therapy</b>				
<b>Abciximab</b>	24 to 48 hours	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	6-8 hours **
<b>Eptifibatide Tirofiban</b>	4 to 8 hours	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	6-8 hours **
<b>Clopidogrel (Plavix)</b>	7 days suggested ¥	<b>Avoid</b> while catheter is in-place	<b>Avoid</b> while catheter is in-place	No time restriction
<b>Aspirin</b>	No time restriction	No time restriction	No time restriction	No time restriction
<b>Uremia (dysfunctional platelets)</b>	No time restriction ¥	No time restriction	No time restriction	No time restriction

† Platelet count, along with PT, aPTT and INR required prior to neuraxial anesthesia/lumbar puncture if on heparin for ≥ 4 days

\*\* Extend time to re-start anticoagulant another 6 hours past above time for bloody lumbar puncture or epidural

‡ May consider epidural anesthesia sooner than 5 days but only if coumadin has been completely reversed with vitamin K; consultation with anesthesiology mandatory.

¥ May consider DDVAP 0.3 mcg/kg IV prior to spinal/epidural puncture to help with platelet aggregation (effective for 4 hours after administration)

Note: Longer elimination times will be required in patients with impaired renal function

Note: Anti-platelet agents, INCLUDING aspirin, should not be used concurrently with anti-coagulants with epidural catheters in-place

Note: Usual signs of spinal hematoma include new-onset numbness, weakness, or bowel and bladder dysfunction; less common is radicular pain. Median time interval between spinal and onset of neurologic dysfunction is 3 days.

References: Regional Anesthesia & Pain Medicine: January/February 2010 - Volume 35 - Issue 1 - p 64-101. Proceedings of the Third ASRA Consensus Conference on Neuraxial Anesthesia and Anticoagulation