

ANTICOAGULATION GUIDELINES SUMMARY

The following guidelines are recommended for **LOW** BLEEDING RISK PROCEDURES, such as:

- Superficial abscess drainage or biopsy
 - Thyroid, breast, soft tissue, extremity, superficial lymph node
 - MSK injections (i.e. joint injections)
 - Facet injections (thoracic and lumbar)
 - Bone marrow biopsy
- Thoracentesis
- Paracentesis
- Lumbar puncture
- Chest tube insertion
- PICC insertion
- Abscess drainage catheter EXCHANGE (not insertion)

ANTIPLATELETS	
Thienopyridines	
Clopidogrel (Plavix)	Do not withhold.
Ticagrelor (Brillinta)	
Prasugrel (Effient)	
Cangrelor (Kengreal)	Defer procedure off medication. If procedure is emergent, withhold 1 hour prior to procedure. Multidisciplinary discussion with Cardiology is suggested.
NSAIDs	
Aspirin, Aspirin/Dipyridamole (Aggrenox)	Do not withhold.
Ibuprofen, Diclofenac, Ketoprofen, Indomethacin, Ketorolac	
Naproxen, Sulindac, Diflunisal, Celecoxib	
Meloxicam, Nabumetone, Piroxicam	
Glycoprotein IIb/IIIa Inhibitors	
Long-acting Abciximab (Reopro)	Withhold for 24 hours prior to procedure. Patients receiving glycoprotein IIb/IIIa inhibitors are undergoing PCI or within immediate periprocedural period from cardiac intervention. Multidisciplinary shared decision making is recommended.
Eptifibatide (Integrilin), Tirofiban (Aggrastat)	
ANTICOAGULANTS	
Coumadin (Warfarin)	Stop 5 days prior to procedure. Consider bridging for high thrombosis risk cases. Check INR 24-48 hours before procedure. Target INR \leq 2-3.0.
Heparin, LMWH (Enoxaparin (Lovenox), Dalteparin (Fragmin)	Do not withhold.
Fondaparinux (Arixtra), Argatroban (Acova), Bivalirudin (Angiomax)	
Prasugrel (Effient)	
Apixaban (Eliquis), Betrixaban (Bevyxxa), Dabigatran (Pradaxa)	
Edoxaban (Savaysa), Rivaroxaban (Xarelto)	

ANTICOAGULATION GUIDELINES SUMMARY

The following guidelines are recommended for **HIGH** BLEEDING RISK PROCEDURES, such as:

- Deep abscess drainage (lung, abdomen, retroperitoneal, pelvis)
- Solid organ biopsy or drainage (e.g. liver, kidney)
- Lung biopsy
- Cholecystostomy tube insertion

ANTIPLATELETS	
Thienopyridines	
Clpidogrel (Plavix)	Withhold for 5 days prior to procedure. If using a 75 mg dose, can resume 6 hours post-procedure If using a loading dose (300-600 mg), can resume 24 hours post-procedure.
Ticagrelor (Brilinta)	Withhold for 5 days prior to procedure. Can resume the day after procedure.
Prasugrel (Effient)	Withhold for 7 days prior to procedure. Can resume the day after procedure.
Cangrelor (Kengreal)	Defer procedure off medication. If procedure is emergent, withhold 1 hour prior to procedure. Multidisciplinary discussion with Cardiology is suggested.
NSAIDs	
Aspirin, Aspirin/Dipyridamole (Aggrenox)	Withhold 3 to 5 days prior to procedure. Can resume the day after procedure.
Ibuprofen, Diclofenac, Ketoprofen, Indomethacin, Ketorolac, Naproxen, Sulindac, Diflunisal, Celecoxib, Meloxicam, Nabumetone, Piroxicam	No recommendation.
Glycoprotein IIb/IIIa Inhibitors	
Long-acting Abciximab (Reopro)	Withhold for 24 hours prior to procedure.
Eptifibatide (Integrilin), Tirofiban (Aggrastat)	Patients receiving glycoprotein IIb/IIIa inhibitors are undergoing PCI or within immediate periprocedural period from cardiac intervention. Multidisciplinary shared decision making is recommended.
Cilostazol (Pletal)	Do not withhold.
ANTICOAGULANTS	
Apixaban (Eliquis)	Withhold 4 doses/for 2 days prior to procedure if eGFR > 50. Withhold for 6 doses/3 days prior to procedure if eGFR ≤50. Can resume 24 hours post-procedure.
Argatroban (Acova), Bivalirudin (Angiomax)	Withhold 2 to 4 hours prior to procedure. Check aPTT. Can resume 4 to 6 hours post-procedure.
Betrixaban (Bevyxxa)	Withhold for 3 doses. Can resume 24 hours post-procedure.
Coumadin (Warfarin)	Stop 5 days prior to procedure. Consider bridging for high thrombosis risk cases. Check INR 24-48 hours before procedure. Target INR < 1.8. Can resume the day after procedure.

ANTICOAGULATION GUIDELINES SUMMARY

Dabigatran (Pradaxa)	Withhold 4 doses/for 2 days prior to procedure if eGFR > 50. Withhold for 6-8 doses/4 days prior to procedure if eGFR \leq 50. Can resume 24 hours post-procedure.
Dalteparin (Fragmin)	Withhold 1 dose prior to procedure. Can resume 12 hours post-procedure.
Edoxaban (Savaysa)	Withhold 2 doses/for 2 days prior to procedure if eGFR > 50. Withhold for 3 days prior to procedure if eGFR \leq 50. Can resume 24 hours post-procedure.
Fondaparinux (Arixtra)	Withhold for 3 days if eGFR > 50. Withhold for 5 days if eGFR \leq 50. Can resume 24 hours post-procedure.
Heparin – via IV	Withhold 4 to 6 hours prior to procedure. Procedure may be performed 6 hours after last dose. Can resume 6 to 8 hours post-procedure.
LMWH (Enoxaparin (Lovenox))	Withhold 1 dose if prophylactic dose if used. Withhold 2 doses or 24 hours prior to procedure if therapeutic dose is used. Can resume 12 hours post-procedure.
Rivaroxaban (Xarelto)	Defer procedure until off medication for 2 doses/for 2 days if eGFR > 50, 3 days if eGFR \leq 50, and 3 doses if eGFR <15-30. Can resume 24 hours post-procedure.