St Vincents IR Medication & Lab Guidelines (2025)

- These are general guidelines. A Radiologist may choose to deviate from these guidelines on a case by case basis (physician experience, patient comorbidities, thrombosis risk, presence of multiple blood thinners, liver/renal dysfunction).

PROCEDURES with LOWER RISK of BLEEDING

- **Superficial** - thyroid nodule FNA, all breast procedures, biopsy/aspiration/drainage of superficial/palpable lesion (including cervical/supraclavicular/axillary/inguinal lymph node and salivary lesion), lymphoscintigraphy
- **Miscellaneous** - thoracentesis, paracentesis, chest tube placement/removal, tunneled pleural/peritoneal drain (Aspira/ Pleurx) placement/removal, drainage catheter exchange/removal (abscess/chest/biliary/nephrostomy), gastrostomy/ gastrojejunostomy exchange/conversion/removal, transjugular liver biopsy
- **MSK** - joint injection/aspiration/arthrogram (including SI joint), bone marrow biopsy, extremity mass/lesion/bone biopsy
- **Neuro** - lumbar puncture, myelogram, peripheral nerve block, sacral lateral branch block
- **Vascular** - nontunneled/tunneled venous catheter placement/removal (including chest port), IVC filter placement and uncomplicated removal, diagnostic angiography/venography, arterial embolization (including bland/chemo/radio/UAE), peripheral arterial intervention, pelvic or extremity venous intervention, dialysis access intervention

Laboratory Parameters

- **Platelets ≥20k** - Not routinely checked.
  All bone marrow biopsy patients require CBC with differential the day of the procedure.
- **INR ≤2.0-3.0** - Not routinely checked (unless there is concern for supratherapeutic INR / coumadin therapy).
- **BMP** - Only checked if patient is to receive conscious sedation or general anesthesia.

PROCEDURES with HIGER RISK of BLEEDING

- **Miscellaneous** - biopsy/aspiration/drainage of intrathoracic/abdominal/pelvic lesion, biliary/cholecystostomy/nephrostomy tube placement, gastrostomy/gastrojejunostomy placement, radiofrequency/microwave/cryoablation
- **Neuro** - cervical/thoracic/lumbar spine disc/facet/epidural procedure (excluding LP/myelogram), kyphoplasty/ vertebroplasty
- **Vascular** - portal vein intervention (including TIPS), complex IVC filter removal, catheter directed thrombolysis, non peripheral arterial intervention (aortic/pelvic/mesenteric/CNS), intrathoracic and CNS venous intervention

Laboratory Parameters

- **CBC Platelets ≥50k** - Checked for all patients (generally within 72 hrs).
- **INR ≤1.5-1.8** - Checked for all patients (generally within 72 hrs).
- **PTT ≤1.5 x control** - Not routinely checked.
- **BMP** - Only checked if patient is to receive conscious sedation or general anesthesia.
- Platelet Function Assay - Not recommended for renal procedures.

BLOOD THINNER HOLDING BASED on BLEEDING RISK

	Lower Risk Procedures		Higher Risk Procedures	
	Hold	**Resume**	**Hold**	**Resume**
Aspirin (all strengths)	no hold	immediately	3-5 days	24 hrs
Ibuprofen (Motrin) **Diclofenac** (Voltaren) **Ketoprofen** (Orudis)	no hold	immediately	12-24 hrs	immediately
Ketorlac (Toradol)	no hold	immediately	24 hrs	immediately

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	Lower Risk Procedures		Higher Risk Procedures	
	Hold	**Resume**	**Hold**	**Resume**
Indomethacin (Indocin) **Etodolac** (Lodine)	no hold	immediately	2 days	immediately
Diflunisal (Dolobid)	no hold	immediately	2-3 days	immediately
Naproxen (Alieve) **Sulindac** (Clinoril)	no hold	immediately	3-4 days	immediately
Meloxicam (Mobic)	no hold	immediately	4 days	immediately
Nabumetone (Relafen)	no hold	immediately	6 days	immediately
Piroxicam (Feldene)	no hold	immediately	10 days	immediately
Celecoxib (Celebrex) **Cilostazol** (Pletal)	no hold	immediately	no hold	immediately
Heparin	no hold	immediately	4-6 hrs (IV) 6 hrs (SQ)	6-8 hrs
Enoxaparin (Lovenox)	no hold	immediately	12 hrs (if once daily) 24 hrs (if twice daily)	12 hrs
Dalteparin (Fragmin)	no hold	immediately	24 hrs	12 hrs
Warfarin (Coumadin)	hold until INR ≤3.0	immediately	hold until INR ≤1.8	24 hrs
Clopidogrel (Plavix)	no hold	immediately	5 days	6 hrs (75 mg dose) 24 hrs (higher dose)
Ticagrelor (Brilinta)	no hold	immediately	5 days	24 hrs
Prasugrel (Effient)	no hold	immediately	7 days	24 hrs
Aspirin/Dipyridamole (Aggrenox)	no hold	immediately	3-5 days	24 hrs
Fondaparinux (Arixtra)	no hold	immediately	2-3 days (GFR ≥50) 3-5 days (GFR <50)	24 hrs
Argatroban (Acova)	no hold	immediately	2-4 hrs	4-6 hrs
Bivalirudin (Angiomax)	no hold	immediately	2-4 hrs	4-6 hrs
Apixaban (Eliquis)	no hold	immediately	2 days (GFR ≥50) 3 days (GFR <50)	24 hrs
Dabigatran (Pradaxa)	no hold	immediately	2 days (GFR ≥50) 3-4 days (GFR <50)	24 hrs
Rivaroxaban (Xarelto)	no hold	immediately	2 days (GFR ≥30) 3 days (GFR <30)	24 hrs
Betrixaban (Bevyxxa)	no hold	immediately	3 days	24 hrs
Edoxaban (Savaysa)	no hold	immediately	2 days	24 hrs
Ticlopidine (Ticlid)	72 hrs	24 hrs	7 days	24 hrs
Desirudin (Iprivask)	no hold	1 hr	4 hrs	1 hr
Abciximab (ReoPro)	24 hrs	per Cardiology	24 hrs	per Cardiology
Eptifibatide (Integrilin) **Tirofiban** (Aggrastat)	4-8 hrs	per Cardiology	4-8 hrs	per Cardiology

Non aspirin NSAIDs held for approximately 5 half lives (only for higher-risk procedures).

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MEDICATION HOLDING for GENERAL ANESTHESIA CASES

- **24 hours** - Rybelsus (semaglutide), Victoza (liraglutide), Januvia (sitagliptin), Tradjenta (linagliptin), Onglyza (saxagliptin)
- **4 days** - Farxiga/Xigduo/Qtern (dapagliflozin), Jardiance/Synjardy/Glyxambi (empagliflozin), Invokana/Invokamet (canagliflozin), Steglatro (ertugliflozin), Brenzavvy (bexagliflozin), Inpefa (sotagliflozin)
- **7 days** - Ozempic/Wegovy (semaglutide), Mounjaro/Zepbound (tirzepatide), Saxenda (liraglutide), Byetta (exenatide), Trulicity (dulaglutide)

PATIENTS with CHRONIC LIVER DISEASE

- Recommended laboratory parameters:
  Lower Risk Procedures - platelets >20k, INR not applicable, fibrinogen >100
  Higher Risk Procedures - platelets >30k, INR <2.5, fibrinogen >100
- Give 10 mg vitamin K slow IV if INR > 2.5.
- Give 1 dose (body weight <80 kg) or 2 doses (body weight >80 kg) cryoprecipitate when fibrinogen <100.
- Platelet and PT/INR levels are not predictive of bleeding risk in CLD patients.
- CLD patients with a given set of platelet/INR values are at decreased bleeding risk compared with a normal patient with the same lab values.
- Patients with CLD have almost twice the thrombotic risk as the general population.
- Platelet aggregation function is enhanced in CLD patients.
- The 2013 AASLD revised practice guideline for the management of adult patients with ascites caused by cirrhosis determined that the routine administration of blood products before paracentesis in patients with cirrhosis and coagulopathy is not data-supported.