

MRHC Coagulation Guidelines for Image Guided Procedures

Thoracentesis and Paracentesis

Preprocedure lab testing

INR and Platelets - No need to check unless patient is taking Warfarin or has history of bleeding diathesis (cirrhosis, familial coagulopathy, etc).

Management

INR > 2.0: threshold for treatment (FFP, vitamin K). If INR > 2.0 for paracentesis, discuss with radiologist

Platelets < 50,000: transfusion recommended

ASA - do not hold

Plavix - withhold 5 days prior to procedure

Lovenox - hold one dose (12 hrs)

Superficial Biopsies (thyroid, lymph node, neck, superficial abscess drainage)

Preprocedure lab testing

INR and Platelets - No need to check unless patient is taking Warfarin or has history of bleeding diathesis (cirrhosis, familial coagulopathy, etc).

Management

INR > 2.0: threshold for treatment (FFP, vitamin K)

Platelets < 50,000: transfusion recommended

ASA/Plavix* - withhold 5 days prior to procedure (except for abscess drainage)

Lovenox - hold one dose (12 hrs)

Breast Biopsy

Preprocedure lab testing

INR and Platelets - No need to check unless patient is taking Warfarin or has history of bleeding diathesis (cirrhosis, familial coagulopathy, etc).

Management

INR > 2.0: Hold warfarin for 3-5 days

INR ≤ 2.0: Perform biopsy

ASA/Plavix* - withhold 5 days prior to procedure

Deep Biopsies (liver, lung, intra-abdominal mass/lymph node)

Preprocedure lab testing

Inpatients: INR and Platelet count within 1 week. Check INR the day of procedure if on warfarin.

Outpatients: INR and Platelets within 3 months if previously normal. Repeat INR and platelet count if previously abnormal. Check INR the day of procedure if on warfarin.

Management

INR > 1.5: threshold for treatment (FFP, vitamin K).

Platelets < 50,000: transfusion recommended

Plavix - withhold 5 days prior to procedure

ASA - withhold 5 days prior to procedure - do not delay emergent procedure (abscess drain) due to ASA

Lovenox - hold one dose (12 hrs)

MSK injection/arthrogram/joint aspiration

Preprocedure lab testing

INR and Platelets - No need to check unless patient is taking Warfarin or has history of bleeding diathesis (cirrhosis, familial coagulopathy, etc).

Management

Arthrogram/Injection

INR > 3.0: threshold for treatment (FFP, vitamin K).

ASA – do not hold

Plavix – do not hold unless patient bruises easily (5 day hold if so)

Lovenox - hold one dose

Joint Aspiration

INR > 2.0: threshold for treatment (FFP, vitamin K).

ASA – do not hold unless patient bruises easily (5 day hold if so) – do not delay aspiration of septic joint

Plavix – 5 day hold

Lovenox – hold one dose (12 hr)

***Before holding Plavix and/or ASA, assessment of patient's cardiac history is needed. If patient has history of cardiac or neurologic stents, the ordering physician should okay medication holds. If the procedure is urgent or if patient has forgotten to hold ASA, the radiologist may use their discretion whether to proceed with the procedure. Do not reschedule low-risk procedure patients due to ASA.**

Guidelines for checking labs:

Inpatients: INR and Platelet count within 1 week. Check INR the day of procedure if on warfarin.

Outpatients: INR and Platelets within 3 months if previously normal. Repeat INR and platelet count if previously abnormal. Check INR the day of procedure if on warfarin.

Less Common Medications:

LMWH (Lovenox, Fragmin) – Stop 12 hours prior to procedure, restart 12 hours post procedure or 48 hours post high risk procedure

Heparin IV – Stop 4 hours prior to procedure, restart 2 hours post procedure

Heparin SQ – Stop 6-8 hours prior to procedure, restart 6-8 hours post procedure

Ticagrelor (Brilinta) and Prasugrel (Effient) – same as Plavix

Ticlopidine (Ticlid) – same criteria as Plavix, but with 7 day hold

Fondaparinux (Arixtra) – Stop 72 hours prior to procedure. Restart 24 hours post procedure.

Rivaroxabran (Xarelto), Apixaban (Eliquis) – Stop 24 hours before low-risk procedure, 48 hours before high-risk procedure. Resume 24 or 48 hours post procedure for low and high risk procedures respectively. If renal function is impaired, hold times need to be altered (see Univ. of Wisc. Guidelines)

Dabigatran (Pradaxa) – Stop 48 hours before low-risk procedure, 96 hours before high-risk procedure. Resume 24 or 48 hours post procedure for low and high risk procedures respectively. If renal function is impaired, hold times need to be altered (see Univ. of Wisc. Guidelines)

Argatroban, Abciximab, Eptifibatide, Aggrastat, Lamifiban, Lepirudin, Desrudin, Bivalirudin – While these medications may be cleared due to half-life, the risk of post-procedure bleeding is high when restarting medication. Discuss with Radiologist on a case by case basis.