HIGH RISK LOW RISK

* * C A U T I O N * *

Patient at risk for THROMBOTIC EVENTS may require consultation for bridging anticoagulation therapy (eg. PROSTHETIC HEART VALVES, VENOUS THROMBOEMBOLISM, ATRIAL FIBRILLATION WITH PRIOR STROKE)

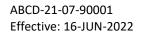
Premature discontinuation of anti-platelet drugs in patients with CORONARY STENTS may precipitate acute stent thrombosis

Do not stop anticoagulation in these patients without consultation

HIGH RISK PROCEDURES					
HIGH RISK INR ≤ 1.8 or ≤ 2.5 with chronic liver disease Target INR for warfarin reversal: ≤ 1.5 Platelets > 50 x 10 ⁹ /L Testing within 2 weeks for outpatient	Anticoagulant / Antiplatelet MEDS	Discontinue Yes*/ No	Suggested Timing of LAST dose BEFORE procedure*	Timing of FIRST dose AFTER day of procedure*	
VASCULAR	aspirin (ASA), low dose (81 mg)Yes -5		- 5 days	Day + 1	
 TIPS Catheter-directed thrombolysis Arterial interventions >6Fr access 	 clopidogrel (Plavix®) aspirin, non-low dose ticagrelor (Brilinta®) 	Yes	- 5 days†	Day + 1 or + 2	
NON-VASCULAR	prasurgrel (Effient®)	Yes	- 7 days†	Day + 1 or + 2	
Abdominal Procedures Solid organ, lung and deep	■ warfarin (Coumadin®)	Yes	- 5 days, CHECK INR, TARGET ≤ 1.5 *consider bridging in high thrombosis risk cases	Day + 1	
tissue biopsies Prostate biopsy	 subcutaneous heparin (prophylactic) 	Yes	- 8 hrs prior	Day 0 (evening)	
 Deep abscess drainage PCNL/Nephrostomy G and GJ-tube placement Biliary drainage (PTBD) Thermal ablations – liver, 	 low molecular weight heparin (LMWH) 	Yes	prophylactic: > 12 hrs prior therapeutic: > 24 hrs prior	Day 0 (evening)	
kidney, lung, MSK High Risk Spine & Neurological	 (IV) unfractionated heparin 	Yes	infusion to stop 4 hrs prior	8 hrs after	
Procedures	dabigatran (Pradaxa®)	Yes	GFR >50: - 3 days GFR ≤50: - 5 days	Day + 2 or + 3	
 Cervical spine facet blocks Epidural injection (20 G or larger) NOTE: Specialized Neurovascular 	 rivaroxaban (Xarelto®) apixaban (Eliquis®) edoxaban (Lixiana®) 	Yes	Withhold 2 doses if GFR ≥ 50 Withhold 3 doses if GFR < 50	Day + 2 or + 3	
Procedures are excluded, including carotid stenting, and intra-cranial embolization	fondaparinux (Arixtra®)	Yes	-3 days for GFR ≥ 50 -5 days for GFR < 50	Day + 1 Day + 2 or + 3	

*Ordering Physician must give instructions to patient; † Consider minimum of 7 days if concomitant ASA

Page 1 of 4









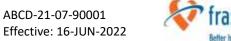


Management Guidelines for * NON - URGENT* Invasive Procedures in Medical Imaging

LO	W RISK PROCEI	DURES		
LOW RISK No routine pre-procedural INR/CBC unless bleeding diathesis suspected; then consider INR ≤ 3.0 and Platelets > 20 x 10 ⁹ /L. For chronic liver disease, INR is not required.	Anticoagulant / Antiplatelet MEDS	Discontinue Yes*/ No	Suggested Timing of LAST dose BEFORE procedure if discontinuing	Timing of FIRST dose AFTER day of procedure*
VASCULAR Dialysis access and venous interventions including varicocele	 aspirin (ASA), any dose 	No		
embolization, venography IVC filter placement/removal PICC insertion Uncomplicated catheter/line	clopidogrel (Plavix®)ticagrelor (Brilinta®)	Possible to continue	Do not withhold	
exchange/removal Angiography/arterial intervention up to 6 Fr access (eg. UAE)	prasurgrel (Effient®)	Possible to continue	Do not withhold	
 Transjugular liver biopsy Tunneled CVC/Port/Hickman NON-VASCULAR	warfarin (Coumadin®)	Possible to continue	- 5 days, TARGET INR ≤ 3.0, *consider bridging in high thrombosis risk cases	Day 0 (evening)
 Catheter exchange or removal (GU, biliary, abscess) Superficial abscess drainage Core biopsy – breast, extremity or other superficial location Joint injection or aspiration, includin 	 subcutaneous heparin low molecular weight heparin (LMWH) – prophylactic 	No		
facet joint, nerve root /medial branch GI tract stenting (colon, esophagus) Hysterosalpingography, Fallopian Tube Recanalization Non-tunneled chest tube	 low molecular weight heparin (LMWH) – therapeutic 	Possible to continue	Do not withhold	
 Lumbar puncture and Epidural injections (21 G or smaller) 	(IV) unfractionated heparin	Possible to continue	Do not withhold	
Exception: Thoracentesis or paracentesis can be carried out with any platelet count or INR	dabigatran (Pradaxa®)	Possible to continue	Do not withhold	
Superficial Aspiration / Biopsy (FNAB) Breast, Extremities, Lymph nodes, Thyroid NOTE: Most LOW risk procedures do not	 rivaroxaban (Xarelto®) apixaban (Eliquis®) edoxaban (Lixiana®) 	Possible to continue	Do not withhold	
require the discontinuation of anticoagulation/antiplatelet therapy.	fondaparinux (Arixtra®)	Possible to continue	Do not withhold	

*Ordering Physician must give instructions to patient; † Consider minimum of 7 days if concomitant ASA

Page 2 of 4











Management Guidelines for * NON-URGENT* Invasive Procedures in Medical Imaging

Booking Clerk Script:

•	"You are booked for a:	procedure in Medical Imaging.
	If you are on any blood thinner medication, you mus	task your Ordering Physician for instructions
	on discontinuing and resuming your medications".	

- We ask that you contact your doctor for more details on this, as we have faxed this info to them.
- If you don't discuss this with your doctor, your procedure may be cancelled.

Please Note:

- Patients on anti-inflammatory medications (NSAIDs) such as the following: (Advil® [ibuprofen],
 Voltaren®, Celebrex®) may continue taking them.
- Please inform your Ordering Physician if you are taking supplements as these may affect blood test results.

References

- SIR Journal of Vascular Radiology 2019; 30:P1168-1184.E1 Society of Interventional Radiology Consensus Guidelines for the Periprocedural Management of Thrombotic and Bleeding Risk in Patients Undergoing Percutaneous Image-Guided Interventions—Part II: Recommendations. Retrieved from https://www.jvir.org/article/S1051-0443(19)30407-5/fulltext
- Canadian Journal of Cardiology 2011; 27:S1-S59 The Use of Antiplatelet Therapy in the Outpatient Setting: Canadian Cardiovascular Society Guidelines. Retrieved from https://www.onlinecjc.ca/article/S0828-282X(17)31221-7/fulltext
- 3. Department of Hematology, VCHA, 27 Jan 2015 Recommendations for the Interruption of Anticoagulation or Antiplatelet Therapy for Elective Invasive Procedures or Surgery. Retrieved from http://shop.healthcarebc.ca/MedicalImaging/ABCD-21-07-90001.pdf

External links to online version

VCH, PHC & VCH SHOP: http://shop.healthcarebc.ca/MedicalImaging/ABCD-21-07-90001.pdf
This above link is used to access the guidelines on the external websites for FH & VCH.

Intranet links to online version

VCH, PHC & VCH SHOP: http://shop.healthcarebc.ca/MedicalImaging/ABCD-21-07-90001.pdf
FH Pulse: https://pulse/clinical/medical-imaging/Pages/Medical-imaging-nuclear-medicine-regional-guidelines.aspx

Version 15.0 Effective 16-JUN-2022

Page 3 of 4









Management Guidelines for * NON - URGENT* Invasive Procedures in Medical Imaging

Effective Date:	16-JUN-2022					
Posted Date:	16-JUN-2022					
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Last Reviewed:	15-JUN-2022					
Approved By:			Interventional Radiology Me Lead Dr. Stephen Ho			
	13-APR-20	022	15-JUN-2022			
Owner:	Interventional Radiology Medical Practice Lead					
Revision History:	Version	Date	Descript	tion/Key Changes	Revised By	
	10.3	08-MAY-2018			Dr. Stephen Ho, IR MPL	
	10.4	07-JUN-2018			Dr. Stephen Ho, IR MPL	
	12.1	10-AUG-2019	Refer to memo Refer to memo		Dr. Stephen Ho, IR MPL	
	12.2	05-SEP-2019			Dr. Stephen Ho, IR MPL	
	13.0	Title Change from "Elective" to "Non-Urgent" Removal of "Standard Risk". Only high and low risk remain for risk for thrombotic events. All venous interventions remain in low risk. Caudal epidural moved to low risk Prostate biopsy and lung biopsy itemized. "Complex" removed from thermal ablations		Dr. Stephen Ho, IR MPL		
	14.0	25-MAY-2022	REMOVE NSAIDs completely from HIGH RISK TABLE Change wording HIGH RISK - Epidural injection (lumbar/thoracic/cervical) to Epidural injections (20 G or larger) Change wording LOW RISK – Joint injection or aspiration, including facet joint, nerve root/medial branch Change wording LOW RISK – Lumbar puncture and Epidural injections (21 G or smaller) Change reference from CrCl to GFR (much easier to understand for non MDs)		Dr. Stephen Ho, IR MPL	
	15.0	15-JUN-22		uation of NSAIDs for High Risk ent from <i>Please Note</i> section	Dr. Stephen Ho, IR MPL	

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