Blood Disorders Day

Perioperative Management of Warfarin

CancerCare Manitoba
ActionCancerManitoba

Determine Urgency of Procedure

Urgent / Emergent (<12-24h; moderate to high bleeding-risk procedure only):
1. Stop warfarin
2. Order CBC, Cr, type and screen, INR STAT
3. Supportive care and drug reversal:
   - » Vitamin K 10mg IV x 1
   - » PCC IV (dose based on INR)*
   - » Transfuse RBCs if Hgb<70g/L (or <90g/L if unstable coronary artery disease)
   - » Transfuse platelets if plt<50 (<100 for neurosurgical procedures)

NB: If recent proximal DVT or PE within 4 weeks then consult hematology for consideration of IVC filter

Elective/Semi-Urgent
(days-months)

Has the patient had a recent thrombotic event?
» VTE within the last 3 months OR
» Ischemic stroke/TIA within the last 3 months in setting of atrial fibrillation

YES →
» When possible, defer surgery until 3 months after thrombotic event
» If VTE within 4 weeks and surgery cannot be delayed, consult hematology for consideration of IVC filter

NO ↓

Very low procedural bleeding risk**

YES → Proceed without holding anticoagulation

NO ↓

Evaluate PATIENT thrombosis risk

Low/intermediate risk → No bridging

High risk***

***PCC dosing (Max dose is 3000 IU)**
» INR 1.5 – 2.9: 1000 IU
» INR 3.0 - 5.0: 2000 IU
» INR 5.1 or greater: 3000IU
» INR unknown and major bleeding on warfarin: 2000 IU

**Very Low risk procedures
» Cataract surgery
» Skin biopsy
» Dental extraction (1-2 teeth) or teeth cleaning

***High risk patient characteristics
» Mechanical prosthetic mitral valve
» Older generation mechanical aortic valve
» Recent (<3 months) arterial or venous thrombotic event where surgery cannot be delayed
» Prior arterial or venous thrombosis during interruption of warfarin

Bridging recommended (LMWH preferred)
Day -6: last dose of warfarin
Day -5, -4: no warfarin, no LMWH
Day -3: start LMWH (full dose)
Day -2: LMWH (full dose)
Day -1: administer ½ LMWH dose in AM (24 hours prior to surgery). Check INR: if >1.5, give vitamin K 1-2mg PO.
Day 0: no LMWH
Day +1 to +3: resume warfarin when patient drinking fluids; resume LMWH 24-48 hours post-operatively if hemostasis achieved.
Day +5 or later: discontinue LMWH once INR in therapeutic range.

LMWH = Low molecular weight heparin
PCC = Prothrombin complex concentrate eg. Octaplex® or Beriplex®
INR = International normalized ratio
Refer to www.thrombosiscanada.ca for further information

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Pathways are subject to clinical judgement and actual practice patterns may not always follow the proposed steps in this pathway.

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