**Determine Urgency of Procedure**

**Urgent / Emergent** (<12-24h; moderate to high bleeding-risk procedure only):
1. Stop anticoagulant and determine timing of last dose
2. Order CBC, Cr, type and screen STAT
3. Supportive care and drug reversal:
   » Anti-Xa agent: PCC 50 units/Kg (max 3000U) - consider hematology consultation
   » Dabigatran: Idarucizumab- two x 2.5g doses IV no more than 15 minutes apart
   » All patients
      » 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

**Evaluate SURGICAL bleeding risk**

| Very low risk | Low risk | Moderate risk (2-day risk of major bleeding 0-2%): target <15-25% anticoagulation effect | High risk (2-day risk of major bleeding 2-4%): target <10% anticoagulation effect |
|---|---|---|---|

**Very low risk**

Proceed without holding anticoagulation
**OR**
Delay daily dose to 4-6h post procedure

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

**Low risk**

Hold dose day of procedure
**OR**
Delay daily dose to 4-6h post procedure

**Moderate risk**

Dabigatran: calculate CrCl

>50: last dose day -2
30-50: last dose day -3

Apixaban Edoxaban Rivaroxaban (CrCl >30ml/min)

Last dose day -2

**High risk**

Dabigatran: calculate CrCl

>50: last dose day -3
30-50: last dose day -5

Apixaban Edoxaban Rivaroxaban (CrCl >30ml/min)

Last dose day -3

**DOAC** = Direct oral anticoagulant
Refer to www.thrombosiscanada.ca for further information

**University of Manitoba**