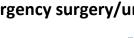


# Life threatening uncontrolled bleeding OR Emergency surgery/urgent procedure needed



### **Initial Management**

- 1. Stop all anticoagulants (oral and parenteral) and antiplatelet agents.
- 2. Initiate resuscitation in monitored setting.
- 3. Determine cause of bleeding.
- 4. Apply local hemostatic measures, if appropriate.
- 5. Refer for procedural/surgical intervention, if appropriate.
- 6. Obtain CBC, INR/PTT, creatinine, eGFR.

# No Antithrombotic Drug on board? No Thromboembolic Agent Dabigatran Pes Apixaban, Edoxaban or Rivaroxaban

## **Emergency Reversal of Warfarin Anticoagulation:**

- 1. PCC is the preferred choice for immediate emergency reversal (over frozen plasma).
  - PCC effect is temporary and decreases after 6 hours.
  - PCC Dosing:

Initial	Less	3 – 5	Greater
INR	than 3		than 5
Dose	1000 units	2000 units	3000 units
	(40 mL)	(80 mL)	(120 mL)

# If INR is unknown and major bleeding present: 2000 units (80 mL)

2. Give Vitamin  $K_1 10$  mg IV for ongoing reversal greater than 6 hours (usually given over 30 minutes, but may be infused at a maximum rate of 1 mg/min). Vitamin  $K_1$  takes 4-6 hours to take effect.

- 1. Consult early.
- 2. Determine likely presence of drug and expected elimination rate using time of last dose, drug  $T_{1/2}$  and eGFR (see table of elimination half-lives).
- 3. A normal INR/PTT does NOT exclude anticoagulant effect from a NOAC/DOAC.
- 4. An increased INR/PTT, however, does indicate anticoagulant effect.

# If clinically significant dabigatran levels suspected:

Give idarucizumab (Praxbind®) 5 g IV (administered as 2 separate 2.5 g doses no more than 15 minutes apart). Infusion of each 2.5 g vial should take no longer than 5 to 10 minutes.

(Supplied by Pharmacy)

# If clinically significant apixaban, edoxaban or rivaroxaban levels suspected:

Give PCC 50 units/kg, max 3000 units.

Inform patients/families of small thrombotic risk of PCC, but consequences of uncontrolled bleeding likely exceed this risk.

(PCC supplied by the Lab)

- 1. Transfusion therapy as appropriate (e.g., PRBCs, plasma).
- 2. Consider adjunctive therapy with tranexamic acid 1 g IV over 10 minutes followed by 1 g IV infusion over 8 hours.

### Elimination Half-life (T<sub>1/2</sub>) of DOACs/NOACs

Renal Function		Apixaban	Dabigatran	Edoxaban	Rivaroxaban	
	eGFR ≥ 50 mL/min	8 – 12 hrs	7 – 17 hrs	10 – 14 hrs	7 – 11 hrs	
	eGFR 30-49 mL/min	8 – 12 hrs	17 – 20 hrs		7 – 11 hrs	
	eGFR < 30 mL/min	12 – 17 hrs	21 – 35 hrs		11 – 15 hrs	

PCC = Prothrombin Complex Concentrate
Ref: Thrombosis Canada 2019
Initially Approved by MAC March 2017
Revised October 2020 and Approved by MAC February 2021