

**Refer to the guideline text for additional detail (#15355 “Reversal of Anticoagulants”)**

**Life-Threatening Bleeding Noted**

□ = Evidence-based recommendation  
 ■ = Therapeutic Option – Insufficient evidence to recommend for or against use

In all cases of life-threatening bleeding, supportive strategies by means of discontinuation of anticoagulant, mechanical compression as able, and administration of blood products, fluid resuscitation, hemodynamic and respiratory support are required. In addition maintain normal body temperature, blood pH and electrolyte balance to facilitate coagulation.

Emergent reversal required?

No

Yes

- Warfarin
- UFH
- Enoxaparin
- Fondaparinux
- Dabigatran
- Edoxaban Apixaban Rivaroxaban
- Argatroban Bivalirudin

Obtain INR

Give phytonadione 5-10 mg IV

Is the patient's INR ≥ 2

No

No

Protamine 1 mg/100 units UFH administered within the last 2 hours (maximum dose 50 mg)

Last dose < 8 hours

Yes

Protamine 1 mg/1mg enoxaparin (max 50 mg) If bleeding continues, repeat protamine 0.5 mg/ 1 mg enoxaparin (max 50 mg)

No

Last dose 8-12 hrs?

Yes

Protamine 0.5 mg / 1 mg enoxaparin (max 50 mg)

Consider Factor VIIa (Novoseven®) single dose 90 mcg/kg

Last dose ≤ 2 hours?

Yes

Consider activated charcoal

Idarucizumab (Praxbind®) 2.5 g IV every 15 min x 2 doses

No

Last dose ≤ 2 hours?

Yes

Consider activated charcoal

Consider 4-Factor PCC (Kcentra®) 50 units/kg (max 5000 units)

No

No reversal agent available

- Evaluate for VTE risks\*
- Consider FFP 10-15mL/kg if VTE risk present - or -
- 4-Factor PCC (Kcentra®) 25 units/kg

4 Factor PCC (Kcentra®) (round to nearest vial size)

INR	Dose
2.0-3.9	25 units/kg (max 2500 units)
4.0-6.0	35 units/kg (max 3500 units)
≥ 6.1	50 units/kg (max 5000 units)

PCC – prothrombin complex concentrate  
 Enoxaparin 1 mg is approximately 100 anti Xa units

**\* - Relative Risk Factors:**

- Thromboembolic event in previous 6 weeks: DVT/PE, ACS, ischemic stroke
- Known thrombotic disorder: malignancy, DIC, polytrauma, HIT
- Non-survivable intraparenchymal hemorrhage