

Medication: Enoxaparin	PDN: 6983.04	Last Updated: March 10 2023	PMD: Andrew Travers*	PDC: Tanya Fraser*	Page 1 of 2
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ENOXAPARIN (Lovenox)

1.0 Classification

- Anticoagulant/Antithrombotic

2.0 Mechanism of Action

- Accelerated neutralization of coagulation factors by antithrombin.
- Prevents the conversion of fibrinogen to fibrin.

3.0 Indications

- For the treatment of ST segment elevation myocardial infarction (STEMI) of less than twelve (12) hours duration and more than twenty (20) minutes duration when TNK is being administered.

4.0 Contraindications (for pre-hospital administration)

- Active bleeding or known bleeding/clotting disorder or on anticoagulants [e.g., warfarin (Coumadin), dabigatran (Pradaxa), rivaroxaban (Xarelto)].
- Recent (within 6 weeks) major trauma, surgery (including eye surgery), GI/GU bleed.
- History of stroke, TIA, severe dementia, or structural CNS damage (e.g., tumour, AV malformation, aneurysm).
- Significant closed head/facial trauma within last 3 months
- Significant hypertension (SBP > 180 or DsBP > 110) at any time from presentation (relative).
- Right arm versus left arm SBP difference of 15 mmHg.
- Prolonged (greater than 10 minutes) CPR (relative).
- Cardiogenic shock (relative contraindication - would do best with PCI; consult with MD)

5.0 Precautions

- Bleeding risk is increased with combined use of fibrinolytics and anticoagulants.
- Administer with caution in patients with concurrent illness, chronic alcoholism, renal failure, and the elderly.
- Monitor any IV insertion sites for bleeding post-administration.

6.0 Route

- May be given IV and Subcut

7.0 Dosage

Patients less than 75 years old

- 1 mg/kg of Subcut enoxaparin (maximum 100 mg), given once.
- 30 mg of IV enoxaparin, given once.

Patients 75 years old and greater

- 0.75 mg/kg of Subcut enoxaparin (maximum of 75 mg), given once.
- No IV dose

Subcutaneous Enoxaparin		
Weight kg (lbs)	Less than 75 years old	75 years and older
50 (110)	50 mg	38 mg

60 (130)	60 mg	45 mg
70 (154)	70 mg	53 mg
80 (175)	80 mg	60 mg
90 (200)	90 mg	68 mg
≥ 100 (220)	100 mg	75 mg

8.0 Supplied

- There are 2 versions of enoxaparin available:
 - 30 mg in 0.3 mL preloaded syringe (IV dose)
 - 100 mg in 1 mL preloaded syringe (Subcut dose)

9.0 May Be Given By

- ACP/CCP (after consultation with regional facility ED physician)

10.0 Adverse Effects

- Major and/or minor external/internal bleeding
- Irritation and/or hematoma at the injection site

11.0 Special Notes

- Enoxaparin is to be given concurrently with clopidogrel and tenecteplase as an entire reperfusion strategy and should not be given unless all reperfusion medications are being administered. If clopidogrel is contraindicated (e.g., the patient is allergic or unable to take PO medications), enoxaparin and tenecteplase should still be administered.
- Standard ischemic chest pain management (ASA, nitroglycerin and opioids for severe pain unresponsive to nitrates) should be continued as well.
- Pregnancy category B [if there is a clinical need for it, Category B drugs are considered safe to use]

12.0 References

- Chest Pain Clinical Practice Guideline
- EHS STEMI Reperfusion Worksheet
- Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed

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