

Drug Name: Unfractionated Heparin (UF),
Low Molecular Weight Heparin
(LMWH)

Trade Name: Heparin, Lovenox

REVISED: November 1, 2018

Class:

- Anticoagulant

Mechanism of Action:

- Heparin inhibits the clotting cascade by activating specific plasma proteins.

Indications:

- Acute coronary syndrome
- Atrial fibrillation with emboli
- Deep-vein thrombosis
- Pulmonary embolism
- Disseminated Intra-vascular Coagulation (DIC)
- To maintain IV Patency

Contraindications:

- Hypersensitivity
- Thrombocytopenia
- Uncontrolled active hemorrhage (exception for DIC)

Precautions:

- Pregnancy category C

Dosage:

IV Infusion: Infusion and SQ doses are highly variable and based on institutional guidelines and patient laboratory values. Double check orders with transferring physician.

Onset:

- IV/IO: Onset: (IV) Immediate
- SQ: 20-60 min
- Duration: 4-8 hr 1-2 min

Duration:

- Based on infusion duration

Side Effects:

- Hemorrhage
- Thrombocytopenia

Interactions:

- Increased risk of bleeding when used with aspirin, non-steroidal anti-inflammatory agents, dipyridamole, dextran, quinidine, cefamandole, cefmetazole, cefoperazone, cefotetan, thrombolytics, and warfarin.

IFT

REFERENCE ONLY

This document is for **reference only**. Please refer to Physician Order's for specific indications, dosages, and applications

IFT DRUG: Heparin

PEARLS:

If spontaneous hemorrhage develops, evidenced by hematuria, hematemesis, epistaxis, ecchymosis, etc., immediately contact medical control with regards to discontinuing administration.

Heparin comes in many concentrations from 1000 to 40 000 units/mL, and drug errors and even fatalities have resulted from concentration mix-ups. **double check dosage for concentration.**

- Dosing considerations: Infusions are based on weight and vary by indication (ACS, PE, etc.). Rate is typically constant but may be titrated/adjusted every few hours based on lab results (Pt/PTT, etc.).
- Due to the risk of medical errors, double check dose w/ another ALS provider (Paramedic, RN, etc.). Specifically observe for:
 - Dosing errors: Dosing errors have occurred, particularly in peds
 - Concentration Errors: Medical errors have occurred because of differences in concentration.
- The drug is used in the prevention and treatment of all types of thromboses and emboli, disseminated intravascular coagulation, arterial occlusion, and thrombophlebitis and is used prophylactically to prevent clotting before surgery and to keep certain IV lines patent.
- Heparin is considered part of the antithrombotic package (along with aspirin and fibrinolytic agents) administered to patient with STEMI, UA/NSTEMI, and acute coronary syndromes
- Unfractionated Heparin dosing is adjusted according to an individual patient's clotting time determined by blood lab analysis.
- Patients over 60 years old may require lower doses.
- Monitor all puncture sites (catheter, incision, etc.) for bleeding.
- Avoid new puncture sites, incisions or injections.

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