

JHH ED Heparin workflow

Ordering and administering Heparin in the JHH EDs



Try It Out

1. If clinically indicated, an ED provider will order Heparin for the patient using an Order Set (either the JHH ED Heparin or JHH ED Chest Pain/ACS Order Sets). One of the three targets needs to be selected:

▼ Heparin Protocols

▼ LOW Target (ACS, Lytic, age >70 yrs, pulmonary HTN)

☐ Nurse Driven Heparin Protocol
Until discontinued

☐ Physician Driving Heparin Protocol

☐ heparin (porcine) bolus and re-bolus

☐ heparin 25,000 units in sodium chloride 0.45 % 250 mL infusion

▼ STANDARD Target (atrial fibrillation, VTE (DVT/PE), arterial thromboembolism, peripheral vascular disease, mechanical valve, OB VTE prophylaxis)

☐ Nurse Driven Heparin Protocol
Until discontinued

☐ Physician Driving Heparin Protocol
Until discontinued

☐ heparin (porcine) bolus and re-bolus

☐ heparin 25,000 units in sodium chloride 0.45 % 250 mL infusion

▼ HIGH Target (vascular surgery)

☐ Nurse Driven Heparin Protocol
Until discontinued

☐ Physician Driving Heparin Protocol
Until discontinued

☐ heparin (porcine) bolus and re-bolus

☐ heparin 25,000 units in sodium chloride 0.45 % 250 mL infusion

2. A hard stop is built into the infusion order that requires that requires the selection of a **Dose**. The nomogram is built into the order instructions for reference:

☒ **heparin 25,000 units in sodium chloride 0.45 % 250 mL infusion (low dose nomogram)** Accept Cancel

Intravenous, Continuous, Starting Today at 1424

Order Inst: **LOW Target Initial Infusion Rate:**

Patient Wt (kg)	Initial Infusion	Patient Wt (kg)	Initial Infusion
≤ 34 kg	400 units/hr	65-74 kg	850 units/hr
35-44 kg	500 units/hr	75-84 kg	950 units/hr
45-54 kg	600 units/hr	≥ 85 kg	1,000 units/hr (max)
55-64 kg	700 units/hr		

Reference Links: [1. Micromedex](#)

Dose: 400 Units/hr 500 Units/hr 600 Units/hr
700 Units/hr 850 Units/hr 950 Units/hr
1,000 Units/hr

Route: Intravenous Intravenous

Frequency: Continuous Continuous

For: Hours Days

Starting: 7/31/2014 Today Tomorrow At: 1423

Starting: **Today 1424** **Until Discontinued** Show Additional Options

Scheduled Times: Show Schedule

Admin. [Maximum 1,000 units/hr.](#)

Inst: STAT

Priority: STAT

[Additional Order Details](#)

3. Once the orders are signed, a warning message will appear. At this time, it cannot be suppressed. Choose the reason- **Benefit outweighs risk** and click **Override and Accept**:

Medication Warnings

Current Warnings Report

Current Warnings (1 unfiltered, 2 filtered)

Duplicate Therapy: heparin (porcine)
Heparin, Antithrombin Agents.
Details

High

Override Reason...

Associated Orders

heparin 25,000 units in sodium chloride 0.45 %
250 mL Premix, Continuous
Facility administered. New. Remove

heparin (porcine) 5,000 unit/mL bolus 60
Units/kg/dose, Once
Facility administered. New. Remove

Immediately override all warnings: Clinician Reviewed Defer to RPh Dose Appropriate Benefit outweighs risk Inaccurate Warning

☐ Show filtered warnings (2)

Benefit outweighs risk Override and Accept Cancel

4. Nurses should go through their usual process of acknowledging the orders and administering the bolus and starting the infusion. Note- heparin is a dual sign off med and will require sign off from a second nurse:

User Authentication

Epic

User Authentication

Patient: New,Admit

Dual Signoff Second User:

User ID:

Password:

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5. Following the guidelines set forth in the Nurse Driven Heparin Protocol, a repeat aPTT needs to be ordered at the specified time (6-12-or 18 hours). This can be done from the **Orders** tab of the ED Narrator. Type **aPTT** in the Additional Orders field and select **APTT-Heparin, RN Managed**. Be sure to change the Order mode to **Per protocol: no cosign required** and click **Sign Orders**:

Event Log Patient Summary Physical Diagram **Orders**

Order Sets [click to open](#)

Search

▼ Suggestions

☐ ED Lumbar Puncture ☐ JHH ED Peds Fever Immunocompromised Host

☐ JHH Adult Blood Products Orders and Administration

Right click on an Order Set to add to favorites.

Orders

Select/Release Sign and Held Orders Select Pending Orders

Routing Dx Association

Order mode: Providers

Additional Orders

APTT-Heparin, RN Managed

Once First occurrence Today at 1610

Routing Dx Association

Order mode: Providers

F9 F7 F8

6. Once resulted, the nurse is able to adjust the rate of the heparin infusion by clicking on the heparin infusion hyperlink in the ED Narrator and changing the **Action** to **Rate/Dose Change**

Action:

- Rate/Dose Change
- Due
- New Bag
- Started During Downtime
- Restarted
- Stopped
- Paused
- Rate/Dose Change
- Rate/Dose Verify
- Handoff

7. The dose should be changed following the printed nomogram. If a warning appears, the nurse should select the Override reason of **Titratable drug** and click **Accept**:

Administration Warning

✖ Dose entered is less than dose ordered

heparin 25,000 units in sodium chloride 0.45 % 250 mL infusion (low dose nomogram)
 Entered: 600 Units/hr
 Ordered: 700 Units/hr

Cancel and re-evaluate the dose
 or
 Select an override reason.

Override reason:

- Dual signoff will also be required for Dose/Rate changes

8. The order for the rebolus/repeat bolus will also appear on the MAR and the ED Narrator to use when documenting a rebolus or repeat bolus based on the aPTT value and the nomogram:

MAR (2)

Edit MAR Note

Infusions

heparin 25,000 units in sodium chloride 0.45 % 250 mL infusion (low target nomogram)
 Route: Intravenous
 Dose: 600 Units/hr
 Last (New Bag): 8/4 1500
 Admin Instructions

PRN

heparin (porcine) 5,000 unit/mL re-bolus 30 Units/kg/dose
 Route: Intravenous
 Dose: 30 Units/kg/dose
 Admin Instructions

9. If nurses would like to see all of the Dose/Rate changes that occurred while the patient was in the ED, they can go to the **MAR** activity:

Thursday July 31, 2014					
1000	1100	1200	1300	1400	1500
dextrose 50% in water (D50W) injection 25 g : Dose 25 g : Intravenous : Every 20 min PRN : Low blood sugar, if blood glucose < 60 mg/dL					
glucagon (GLUCAGEN) injection 1 mg : Dose 1 mg : Intramuscular : Once :					
			1317 Due		
heparin 25,000 units in sodium chloride 0.45 % 250 mL infusion (low dose nomogram) : Dose 700 Units/hr : 7 mL/hr : Intravenous : Continuous :					
				<div>1426 NewBag 700 Units/hr</div> <div>1428 Rate Chg 600 Units/hr</div>	

- Triage
- ED Narrator
- Code Narrator
- Sedation Narrator
- Trauma Narrator
- Disposition
- MAR**
- Manage Orders
- Stroke
- Post Mortem
- Case Managem...