

From the Office of Clinical Informatics Heparin PowerPlan Updates and Heparin Calculators

August 2, 2022

Various PowerPlans utilizing Heparin infusions and intranet-based Heparin calculators are available in a redesigned state for NL EMMC, NL AR Gould Hospital, and NL Mercy Hospital. The updates will support the transition from PTT monitoring to Anti-Xa monitoring. This flyer reviews the changes in the process for utilizing PowerPlans and embedded hyperlinks to use the Heparin calculators.

Affected PowerPlans

- Acute Myocardial Infarction/Acute Coronary Syndrome (AMI/ACS)
- > Atrial Fibrillation Afib Module
- CARD Ablation Inpatient
- CARD Admission/Transfer
- CARD Right Ventricular Biopsy
- CARD Structural Heart Inpatient
- > CARD Cath Inpatient
- ➤ ED Chest Pain Non-STEMI
- General Medical Admission Transfer Adult
- TAVR Transapical/Transaortic Post-Op
- > TAVR Transfemoral Post-Op
- Vascular Admission
- ➤ Vascular Post Op (1 change will be automatic)
- > STEMI tenecteplase (TNKase)
- > Inpatient Heart Cath

Full summary of changes to PowerPlans:

The following four new PowerPlan subphases have been created:

- Heparin Infusion High Intensity for Active Thrombus Protocol
- Heparin Infusion Low Intensity for Neuro Indications or High Risk for Bleeding Protocol
- > Heparin Infusion Moderate Intensity for AFIB, NSTEMI, UA or Bridging Protocol
- ➤ Heparin Conversion from Oral Factor Xa Inhibitors Protocol (NLARG)

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The following two pre-existing PowerPlan subphases are revised. Details below:

- Heparin for Vascular Surgery
 - Content updated.
 - Title changed (previously: Heparin Infusion (Vascular Surgery Low Dose Heparin) Protocol.
 - Calculator link removed due to subphase no longer a Protocol.
- Heparin Conversion from Oral Factor Xa Inhibitors Protocol
 - PTT content updates.
 - EMMC only.

The above new and revised PowerPlan subphases will replace the following current subphases:

- ➤ Heparin Cardiac WITH Bolus Protocol (NLARG)
- ➤ Heparin Cardiac WITHOUT Bolus Protocol (NLARG)
- ➤ Heparin Neuro Indications Protocol (NLARG)
- ➤ Heparin VTE WITH Bolus Protocol (NLARG)
- ➤ Heparin VTE WITHOUT Bolus Protocol (NLARG)
- Unfractionated Cardiac Heparin Protocol
- Unfractionated VTE Heparin Protocol
- ➤ Heparin Infusion (Cardiac Indications) Protocol
- ➤ Heparin Infusion (Cardiac with TNKase) Protocol
- ➤ Heparin Infusion (Neuro Indications) Protocol
- Heparin Infusion (Venous Thromboembolic Disorder) Protocol

NOTE: The above changes only apply to NL AR Gould Hospital, NL EMMC, and NL Mercy Hospital

Powerplan	Previous Name	Anti-Xa goal (IU/mL)	Initial Bolus	Initial Rate	PRN Bolus
Heparin Infusion High Intensity for Active Thrombus	Heparin Infusion (Venous Thromboembolic Disorder)	0.3-0.7	80 units/kg Max 10,000 units	18 units/kg/hr Max 1,800 units/hr	80 units/kg Max 10,000 units 40 units/kg Max 10,000 units
Heparin Infusion Moderate Intensity for A Fib, NSTEMI, UA, Bridging	Heparin Infusion (Cardiac Indications)	0.3-0.7 (previously 0.3-0.63)	60 units/kg Max 4,000 units (previously 10,000)	12 units/kg/hr Max 1,000 units/hr	25 units/kg Max 2,500 units 10 units/kg Max 1,000 units
Heparin Infusion Low Intensity for Neuro Indication or High Bleed Risk	Heparin Infusion (Neuro Indications)	0.3-0.6 (previously 0.3-0.59)	No bolus	12 units/kg/hr Max 1,000 units/hr	25 units/kg Max 2,500 units 10 units/kg Max 1,000 units
Heparin Conversion from Oral Factor Xa Inhibitors	No change	PTT GOAL ARG:40-65 sec EMMC:53-100 sec Mercy: N/A: PTT not done on-site	No bolus	12 units/kg/hr Max 1,000 units/hr	25 units/kg Max 2,500 units 10 units/kg Max 1,000 units
Heparin For Vascular Surgery	Heparin Infusion (Vascular Low Dose Heparin)	EMMC only: < 0.3	No bolus	500 units/hr	none

Previously: every 6 hours until obtaining therapeutic range, then daily

NEW: every 6 hours until 2 consecutive Anti-Xas in range, then daily based on levels (see Heparin Calculator)

NOTE:

Changes from current state are indicated in red. These name changes are occurring in response to errors surrounding selection on wrong PowerPlans based on indication. The Anti-Xa range changed from 0.3-0.63 to 0.3-0.7 to align with recommendations from Anticoagulation Forum.

Heparin PowerPlan Ordering:

Ordering, planning, initiating by provider and nursing steps will remain unchanged. For more information visit the following links:

Order,-Plan,-and-Initiate-a-PowerPlan.aspx (northernlighthealth.org)

Protocol-PowerPlans-Hospital-Nurse-and-Ancillary.aspx (northernlighthealth.org)

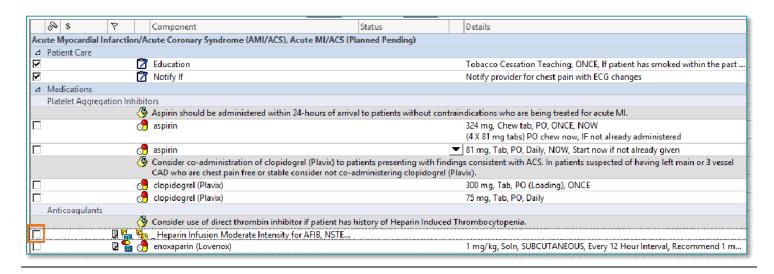
NOTE:

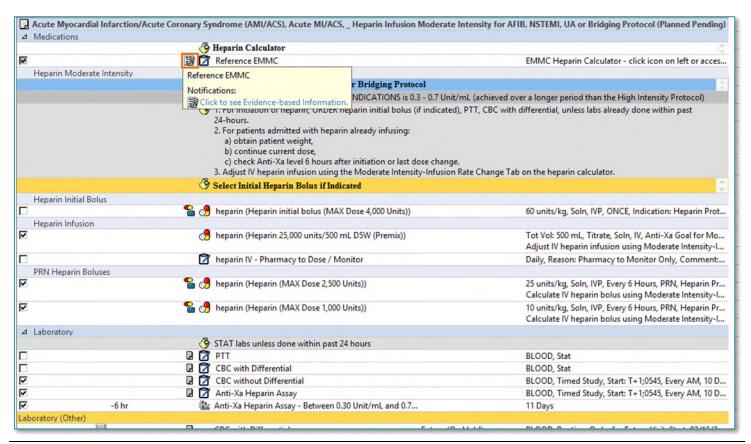
PowerPlans have pre-selected orders, ensure you are reviewing the orders prior to signing. Orders that have missing details will be indicated with the Blue Circle with a white X.

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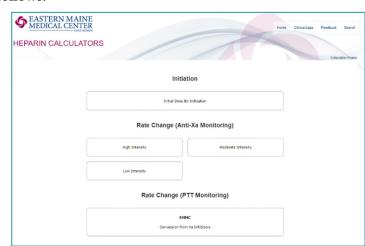
Heparin Calculator

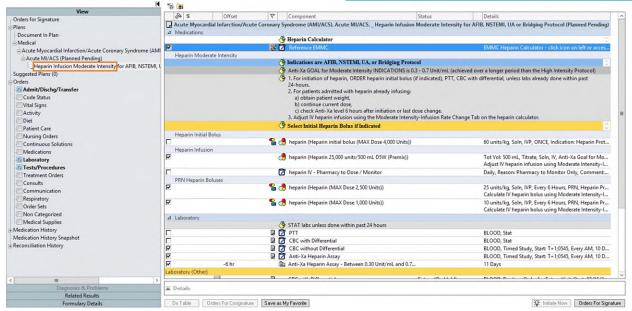
After PowerPlan is ordered, to access the Heparin Calculator, select the subphase within the plan. The subphase icon will be visible: Upon selecting the subphase, reference information (site-specific) will become available. To view site-specific Heparin Calculator, click the reference text icon:





- Heparin calculator will now be available from local intranet page. When determining the Rate Change for Anti-Xa Monitoring, refer to the View window to the left. In this specific example: Heparin Infusion Moderate Intensity for AFIB, NSTEMI, UA or Bridging Protocol subphase is selected, thus meaning the Moderate Intensity Heparin calculator option should be chosen.
- After provider initiation, nursing may need to utilize the Heparin calculator for rate changes or other reference. The direct links to the calculators are as follows:
- ➤ NL EMMC: https://intranet.emhs.org/emmc/thehub/files/heparin-calculators.aspx
- ➤ NL Mercy Hospital: https://intranet.emhs.org/mercy/pages/heparincalculators.aspx
- ➤ NL AR Gould Hospital: https://intranet.emhs.org/tamc/pages/heparincalculators.aspx





NOTE: Refer to MAR for initial bolus.