

From the Office of Clinical Informatics Mercy Hospital Heparin Conversion from Oral Factor Xa Inhibitors

March 7, 2023

The Heparin Conversion from Oral Factor Xa Inhibitors Protocol is ordered by a provider when a patient has taken a Factor Xa Inhibitor (apixaban (Eliquis), edoxaban (Savaysa), rivaroxaban (Xarelto)) in the past 48 hours who also requires Heparin therapy. The protocol uses PTT monitoring of heparin.

Heparin Conversion from Oral Factor Xa Inhibitors Protocol (NLMERCY)

The Heparin Conversion from Oral Factor Xa Inhibitors Protocol (NLMERCY) should be ordered by providers on all patients requiring Heparin therapy who have been on an Oral Factor Xa Inhibitor within the last 48 hours.

- > Heparin Infusion and PRN Heparin Boluses options are prechecked.
- Laboratory
 - Order **baseline PTT** and **CBC** if there are no previous results within 24 hours.
 - Nurses may order PTT levels as instructed by the Heparin Calculator.
 - CBC without Differential every AM is preselected.
 - Nurses are to notify the provider if a PTT is greater than 125 seconds or if bleeding occurs.
 - PTT target is between 48 seconds and 87 seconds.

Heparin Calculators

Xa Inhibitor Conversion Calculator link is located in the Heparin Conversion from Oral Factor Xa Inhibitors Protocol (NLMERCY) PowerPlan.

 Click the first icon to the left of Xa Inhibitor Conversion Calculator to open Heparin Calculators.

| 5 | Me | dication List | Docum | nent l | n Plan | | | | |
|---|-----|---------------|---|--|--|--|----------|--|--------|
| 4 | 0 | ♦ + Add | to Phas | e* | Start | 02/15/2023 9:35 EST | Stop: | None | |
| | S | \$ | Offset | 8 | Cor | nponent | | | Status |
| | | | | | | | | IERCY) (Initiated) |) |
| ⊿ | Med | dications | | - | - | | | | |
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| | • | | Add S Add S Add Add S Add Add S Add A | Add to Phase Add to Phase S Offset Lest updated on: 02/15/ Medications | Add to Phase Add | Image: Second state Image: Second state Image: Second state Image: Second state Image: Heparin Conversion from Oral Fact Last updated on: 02/15/2023 9:38 E Image: Second state Image: Second state Image: Amage: Amag | | Add to Phase Start: 02/15/2023 9:35 EST Stop: S Offset Component Heparin Conversion from Oral Factor Xa Inhibitors Protocol (NLN Last updated on: 02/15/2023 9:38 EST by: ELLIOTT, ROWENA E Medications S S Xa Inhibitor Conversion Calculator | |

- <u>NOTE</u>: <u>Heparin Calculators</u> can also be accessed in the Applications tab located in the Northern Light Mercy Hospital Intranet page.
- Initial Dose by Indication used by nursing on patients who have been on an Oral Factor Xa Inhibitor within the last 48 hours and are beginning heparin therapy.
- **<u>STEP 1</u>**: Click the **Initial Dose by Indication** button.



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- **<u>STEP 2</u>**: Select Conversion from Oral Factor Xa Inhibitors.
- **<u>STEP 3</u>**: Enter the **Patient Dosing Weight**.
- **<u>STEP 4</u>**: Click **Calculate**.
 - Initial Bolus, New Infusion Dose, and Next PTT will populate.
- **<u>STEP 5:</u>** Per the Heparin calculator, administer a **Bolus** if indicated, start the **New Infusion Dose**, and order the **Next PTT**.

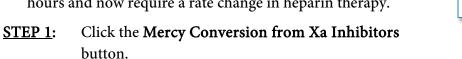
| l | nitial Dose By Indication | | |
|--|--|--|------------------------|
| Select Type O High Intensity O Moderate Intensity O Low Intensity | Patient Dosing Weight (kg) | Calculate Reset | |
| Conversion from Oral Factor Xa Inhibitors | Initial Bolus New Infusion Dose Next PTT | Patient Dosing Weight (kg) | 100 Calculate Reset |
| | | Initial Bolus New Infusion Dose Next PTT | 10 units/kg/hr |

Rate Change (PTT Monitoring)

Mercy

Conversion from Xa Inhibitors

Rate Change (PTT Monitoring) used by nursing on patients who have been on an Oral Factor Xa Inhibitor within the last 48 hours and now require a rate change in heparin therapy.



- **<u>STEP 2</u>**: Enter the **Patient Dosing Weight**.
- **<u>STEP 3</u>**: Enter the **Current Infusion Dose**.
- **<u>STEP 4</u>**: Enter the **Current PTT**.
- **STEP 5:** Click **Calculate**.
- <u>STEP 6</u>: Per the Heparin Calculator, administer a **Bolus** if indicated, adjust the **Infusion Dose**, and order the **next PTT**.

| Mer | cy - Conversion from Xa Inhibitors | | | |
|---|--|------------------------|--|--|
| Patient Dosing Weight kg | | | | |
| Current Infusion Dose (Enter 0 if infusion is off) units/kg/hour | Patient Dosing Weight Current Infusion Dose | 100 kg | | |
| Calculate Reset | (Enter 0 if infusion is off) Current PTT | 10 units/kg/hour 45 | | |
| New Infusion Dose Next PTT | Bolus | Calculate Reset | | |
| | New Infusion Dose Next PTT | | | |

What to do during a Millennium Downtime

During a Millennium downtime or a downtime in which Millennium and the Intranet are both down, the **Heparin Conversion from Oral Factor Xa Inhibitors Protocol (NLMERCY)** Order Set is available. The second and third pages of the Order Set contain a **Heparin Downtime Calculator Table** to assist nursing with rate changes.

- Cerner Millennium is in downtime and Intranet is available
- **<u>STEP 1</u>**: Navigate to the **Mercy Hospital Intranet Home Page**.
- **<u>STEP 2</u>**: Select the **Applications** tab.
- **<u>STEP 3</u>**: Scroll down and select **Order Sets/Pathways (Order Sets)**.
- **<u>STEP 4</u>**: Click **Order Sets Search** and enter **Conversion** in the **Search For** field.
- STEP 5: Click Search.

or

<u>STEP 6</u>: Click **Read More** to open the Order Set.

| | Home / Portals / Order Sets Pathways / Order Sets Set | arch |
|----------------------|---|-------|
| Home | | |
| Member Order Sets | Search for: Conversion Search | |
| Order Sets Search | Heparin Conversion from Oral Factor > | ⟨a In |
| Education/Guidelines | Posted on: 9/15/2016 9:29:58 AM Relevance: | |
| Contact Information | Read More | |
| | | |

- ▶ Both Cerner Millennium and the Intranet are down.
- **<u>STEP 1</u>**: Locate a **724Access Device** on the nursing unit, indicated by a red sticker.
- **Option 1:** Click **Organization Order Sets** from the Desktop on the 724Acess Device



724Access Downtime Viewer

PLEASE DO NOT TURN OFF

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Option 2: Click the Windows icon and select Organization Order Sets on the 724Access Device.

Heparin Downtime Calculator Table

The Heparin Downtime Calculator Table has PTT ranges from Less than 43 to Greater than 135 to guide the nurse on Bolus if indicated, Infusion Rate, and Next PTT.

| Heparin Conversion from Oral Factor Xa Inhibitors Protocol Heparin Downtime Calculator Table Green = requires patient data to be entered Yellow = actions that occur when the infusion is held | | | | | | |
|--|--------------------------------------|-----------------|---|---|----------|--|
| Enter Patient Weight in kg | Enter Current Rate units/kg/hr | Enter PTT | Bolus | Infusion | Next PTT | |
| Weight kg | rate | Less than 43 | 25 units/kg (Not to Exceed 2,500 units) | Increase 2 units/kg/hr | 6 hours | |
| Weight kg | Held Rate=0 | Less than 43 | 0 | **ENTER LAST RATE WHEN PATIENT ON HEPARIN** & Decrease 1 unit/kg/hr | 3 hours | |

For questions regarding process and/or policies, please contact your unit's Clinical Educator or Clinical Informaticist. For any other questions please contact the Customer Support Center at: 207-973-7728 or 1-888-827-7728.