

# In-Center Hemodialysis Standing Orders – Heparin Protocol

**Heparin** ICD 10 code: N18.6, End-Stage Renal Disease

**Purpose:** To provide optimal management of anticoagulation for in-center hemodialysis patients through the use of heparin.

**Heparin Dosing:** By bolus. Initial Heparin dose per physician order using heparin 1,000 units/ml vial.

1. Maximum initial bolus 8000 units.
2. Doses higher than 8000 units require CMO approval.
3. Physician requests for hourly heparin dosing do not require CMO approval, but must be managed by physician.

## **Heparin Dosing Adjustment:**

**Do not change** the heparin dose more frequently than every 1 week unless:

- a. Ordered by physician – or –
  - b. There is a clinical indication to stop heparin, including but not limited to an allergic reaction, recent trauma, or prolonged bleeding, as defined below. Nurse can make this determination.
1. For clotting, notify MD by phone and increase heparin by a 500 unit bolus. Clotting is defined as:
    - a. Shadows or black streaks in dialyzer, or extremely dark blood.
    - b. Clot formation in drip chambers, venous trap, arterial side header, or other sections of dialysis tubing at rinseback.
  2. Decrease heparin by 500 units for prolonged bleeding. Prolonged bleeding is defined as bleeding for greater than 10 minutes after the end of the hemodialysis treatment.
  3. If there is evidence of fall, bruising, same day surgery, or dental visit, notify MD by fax and decrease initial bolus by 50%. If active bleeding is present, such as epistaxis, vaginal bleeding, or if patient is diagnosed with suspected pericarditis, hold heparin and notify MD by phone.

## **Heparin Conversion from Hourly to Bolus at Dialysis Initiation:**

1. Note total ordered heparin dose (all heparin given to a patient throughout dialysis treatment.) Multiply the hourly heparin amount times the total number of hours given. Add that to the bolus amount ordered.
2. Use this dose as the total number of units of heparin to be administered as an intravenous (IV) bolus at dialysis initiation.

Suzanne Watnick, MD

Physician Name (Please Print)

\_\_\_\_\_  
Physician Signature

\_\_\_\_\_  
Date

**Patient Name** \_\_\_\_\_

**NKC#** \_\_\_\_\_