

PHARMACY AND THERAPEUTICS NEWSLETTER

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<http://www.tarzanamed.com/pharmacy/pharmacy.html>

PHARMACY AND THERAPEUTICS COMMITTEE ACTIONS

Formulary Revision:

- **Daptomycin (Cubicin®)** – Anti-infective (Prescribed by Infectious Disease specialist physician only and documented failure of treatment with vancomycin)

POLICY UPDATE:

LOW MOLECULAR WEIGHT HEPARIN POLICY

Enoxaparin (Lovenox®) is the formulary LMWH and the anticoagulant of choice at this facility unless the patient has the following contraindications:

- Renal dialysis
- Epidural/spinal catheter or puncture
- Planned surgery less than 12 hours
- Obese patient

Enoxaparin (Lovenox®) is preferred over unfractionated heparin (UFH) for:

- More predictable response to a dose
- Requires less monitoring and adjustment of dose
- Fewer reported incidences of HIT (Heparin Induced Thrombocytopenia)

The physician will initiate, monitor, and then discontinue enoxaparin (Lovenox®).

An Enoxaparin (Lovenox®) Order Form is available, and the benefits of using the pre-printed form are:

1. Ease of use
2. Complete information on one page
3. Avoids telephone call to the physician

The nurse and/or the pharmacist will order serum creatinine and CBC testing according to the policy (in the event that they have not been ordered by the physician).

Monitoring:

- Monitor serum creatinine twice weekly and CBC on day 3 and then every 7 days.
- Routine Anti-Factor Xa levels are not recommended, but are recommended for high risk patients (obese patients and pregnant women with mechanical prosthetic heart valves).

Special Population

- **Obese Patients** (greater than 150Kg) Consider monitoring Anti-Factor Xa levels. For DVT prophylaxis, increasing the dose 25% (e.g. 40mg twice daily if no renal impairment)
- **Renally Impaired** (CrCl less than 30 mL/min)
 - Requires dosage adjustment, and a pharmacist will adjust enoxaparin (Lovenox®) doses according to the policy.
 - UFH is recommended for dialysis patients or patients with renal insufficiency at high risk of bleeding.
- **Pregnant Women** with Mechanical Prosthetic Heart Valves - consider monitoring Anti-Factor Xa levels.
- Discontinue enoxaparin (Lovenox®) when 2 consecutive therapeutic INR values are achieved with concomitant warfarin (Coumadin®) therapy.

- Reverse enoxaparin (Lovenox®) with protamine.
- Patients with epidural/spinal catheters are at increased risk of epidural or spinal hematoma (Black Box Warning).

Bridge Therapy for Warfarin (Coumadin®)

- Candidates for Bridge Therapy are Patients with
 - Mechanical heart valves
 - Atrial fibrillation
 - VTE risk moderate to high
- Discontinue warfarin (Coumadin®) 5 days before surgery.
- If INR is greater than 1.5 on the day before surgery, administer oral Vitamin K, 1 mg – 2 .5 mg.
- Bridging Protocol is printed on the Enoxaparin (Lovenox®) Order Form.

References:

1. Chest 2008;133:141S-159S
2. Ann Intern Med 1993; 119:874–881
3. Circulation 2008;117:296-329
4. American heart Journal 1999;182 (2, Part1):313-318.

Policy and Procedures:

- **Intravenous (IV) Insulin Infusion Policy:**
The IV insulin infusion may only be ordered by utilizing the hospital-approved pre-printed form. The areas approved to administer IV insulin infusion are:
ICU, CVICU, DOU, and CVU
- **Weight Based Intravenous (IV) Heparin Protocol/Policy:**
IV Heparin should be administered to patients who cannot receive enoxaparin (Lovenox®), a low-molecular weight heparin.
The protocol does not include heparin infusion used for the management of stroke, intra aortic balloon pumps, renal dialysis replacement, and arterial and ventricular assist devices.
Physician will initiate the protocol by utilizing the Weight Based Heparin Protocol form.

The pharmacist will calculate a patient specific weight-based dosing sheet for the nurses.

The nurse will adjust IV heparin infusion rate and order labs per protocol. The nurse also will monitor labs, monitor signs and symptoms of bleeding, and report significant findings to the physician.

- **Prescribing Factor VII Policy:**
Prescribing will be restricted to Heme/Oncology specialist for hospital approved indications using Factor VII Order Form.
- **IV Administration Guidelines**
 1. **Arginine** for growth hormones reserve test: Pediatric area was added to the areas approved for administration.
 2. **Hydromorphone (Dilaudid®):**
Pediatrics and PICU were added to the areas approved for administration.

DRUG INFORMATION:

Heparin Induced Thrombocytopenia (HIT)

Alternative non-heparin anticoagulants such as argatroban, danaparoid, lepirudin or fondaparinux (Arixtra®) or bivalrudin (Angiomax®) should be used if patient has suspected (or confirmed) HIT. **Argatroban is the formulary agent** approved for all areas of the hospital, and **bivalrudin (Angiomax®) is approved for use only at Cath-lab.** If physician chooses to prescribe warfarin as the anticoagulant for a patient suspected (or confirmed) HIT, the therapy should not be initiated until after the platelet count has substantially recovered (typically to at least $150 \times 10^9/L$). The concomitant non-heparin anticoagulant (e.g. argatroban) therapy should overlap with warfarin (Coumadin®) therapy until 5 days after the INR values have reached therapeutic range.

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