LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER - SHREVEPORT

Use of Preferred Medications (Therapeutic Interchange)

**Purpose:** To optimize patient care within the framework of cost containment and treatment efficacy.

**Policy:** Pharmacists are permitted to convert medication orders to an approved equivalent as determined by the Pharmacy and Therapeutics Committee and approved by the Clinical Board. Medication and dose conversion will follow approved protocols. These protocols will be reviewed and revised as needed to ensure the achievement of the desired therapeutic outcomes and economic advantages.

**Procedure**
- Medication conversions shall be automatic.
- Pharmacists shall perform the conversion at the time of order entry. Orders shall be written according to Clinical Board protocol and shall contain the pharmacist’s signature.
- The pharmacist shall evaluate all new orders as to the need for dosage adjustment in patients with decreased renal function, and the physician contacted if dosage reductions should be considered.
- Use of alternative medications must be approved by the Associate Dean for Clinical Affairs or his designee.

1. **Low Molecular Weight Heparin Equivalency and Conversion Protocol**

<table>
<thead>
<tr>
<th>Indication</th>
<th>Patient Type</th>
<th>enoxaparin dose (Lovenox)</th>
<th>change to dalteparin (Fragmin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVT/PE prophylaxis</td>
<td>Surgical High Risk (abdominal, pelvis, &amp; lower extremity)</td>
<td>40mg SQ QD</td>
<td>5000u SQ QD</td>
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<tr>
<td></td>
<td></td>
<td>30mg SQ Q 12h 5000u SQ QD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surgical Moderate Risk</td>
<td>30mg SQ QD</td>
<td>change to heparin 5000u SQ BID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30mg SQ BID</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Orthopedic surgery</td>
<td>30mg SQ Q 12h 5000u SQ QD</td>
<td>5000u SQ QD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40mg SQ QD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical</td>
<td>30mg SQ BID</td>
<td>change to heparin 5000u SQ BID</td>
</tr>
<tr>
<td></td>
<td>OR dalteparin</td>
<td>2500u SQ QD</td>
<td></td>
</tr>
<tr>
<td>DVT/PE treatment</td>
<td>All patients</td>
<td>1mg/kg SQ Q 12h</td>
<td>200u/kg SQ QD (max 18,000u/day)</td>
</tr>
</tbody>
</table>


2. **ACE Inhibitors** – Fosinopril and Captopril will be the only available formulary agents. Therapeutic interchange will be based upon lisinopril 1 mg = benazepril 1 mg = quinapril 1 mg = moexipril 0.75 mg = ramipril 0.25 mg = trandolapril 0.1 mg = fosinopril 1 mg; enalapril total mgs/24 hours = fosinopril totals mgs once daily

3. **Alpha-1 Adrenergic Blockers** –
   Terazosin 2.5 mg = prazosin 1 mg bid = doxazosin (Cardura) 2 mg

4. **Anesthetics/Sedatives** –
   Lidocaine 2.5%/Prilocaine 2.5% (EMLA®) topical = Lidocaine 4% (Ela-Max®) topical
   Propofol (Diprivan) for injection = Propofol for injection

5. **Angiotensin Receptor Blockers** – Valsartan will be the only formulary agent. Therapeutic interchange will be based upon irbesartan 150 mg = candesartan 16 mg = telmisartan 40 mg = valsartan 80 mg; losartan 1 mg = valsartan 1.6mg

6. **Anticholinergics** –
   Chlordiazepoxide/clindinium bromide (Librax®) capsules = L-hyoscyamine sulfate (Levsin®) 0.125

7. **Antiinfective Agents** –
   Fluoquinolones –
   Levofoxacin (all forms) 250mg/500 mg = Gatifloxacin 200mg/400 mg respectively. Moxifloxacin (all forms) 400 mg = Gatifloxacin 400 mg
   Carbapenems –
   Imipenem/cilastin injection will be the only formulary agent. Dosing should be individualized to each patient.

8. **Antidepressants** –
   Bupropion (Zyban) 150 mg tablet = Bupropion (Wellbutrin SR) 150 mg SR tablet
   Paroxetine (Paxil®) 20 mg = Paroxetine (Paxil CR®) 25 mg
   Citalopram (Celexa®) 10 mg = Escitalopram (Lexapro®) 5 mg

9. **Beta Blockers**
   Metoprolol long-acting (Toprol XL) 1 mg daily = Metoprolol 0.5 mg bid
10. **Calcium Channel Blockers (long-acting oral)** –

   a. Amlodipine/Felodipine – Felodipine will be the only formulary agent. Two exceptions are: Amlodipine may be used by Pediatric Nephrology service and in patients unable to take oral solids (felodipine cannot be crushed). Therapeutic interchange will be based upon amlodipine 1 mg = felodipine 1 mg

   b. Nifedipine – GITS (Procardia XL) 1 mg = Nifedipine wax matric (Adalat CC) 1 mg

   c. Nisoldipine (Sular) 4 mg = felodipine 1 mg

11. **Calcium Supplements** –

   a. Calcium carbonate 500 mg tablet = calcium carbonate 650 mg tablet

   b. Calcium citrate 950 mg tablet = calcium carbonate 650 mg tablet

12. **Diuretics** –

   Torsemide (Demadex®) 1 mg = Furosemide 2 mg

13. **H2 Antagonists (all forms)** – ranitidine 150 mg = nizatidine 150 mg = famotidine 20 mg

14. **Oral Hypoglycemic Agents.**

   Glyburide:  
   1.5 mg PresTab = 2.5 mg glyburide regular release tablet
   3 mg Pres Tab = 5 mg glyburide regular release tablet

   Glipizide Extended Release: Equals equivalent total daily doses of glipizide regular release dosage in 2 equal doses

   Glimepiride (Amaryl) 1 mg = Glyburide 2.5 mg

   Metformin (Glucophage XR) 500 mg = metformin immediate release tablet in equivalent divided daily doses

   Rosiglitazone (Avandia) 1 mg = Pioglitazone (Actos) 7.5 mg (max. 45 mg)

15. **Pain Medications** –

   Aspirin 81 mg = Aspirin enteric coated 81 mg

16. **Proton Pump Inhibitors** – Omeprazole 40 mg = esomeprazole 20 mg = lansoprazole 30 mg = rabeprazole 20 mg = Pantoprazole 40 mg

17. **Renal Replacement Oral Vitamins** –
All formulations = Vitamin B & C tablet (currently Nephplex)

18. **Stool Softener** –
   Docusate sodium (Colace) 100mg/10mL = docusate calcium (Surfak) 240 mg

Administrator

11/19/03
Date

Approved by Clinical Board: 7/00, 9/02, 11/03
Reviewed: 10/03
Revised:  10/03