



# MESAC MEMO

Volume 1, Number 3

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As mentioned in the first MESAC Memo, the 6 subcommittees of MESAC will be described in upcoming issues. This is the second subcommittee described.

## The MESAC Utilization Subcommittee Revealed

What does this subcommittee do?

- At the request of the MESAC membership, perform drug utilization reviews to:
  - Optimize drug therapy regimens.
  - Evaluate clinical and economic impact and outcomes of pharmacotherapeutic options for given disease states.

Who is on the subcommittee?

- Physicians, nurses, pharmacists

How often do they meet?

- Once a month

Steps in the drug utilization review process:

- Identify disease and/or drug:
  - High volume/cost
  - New pharmacologic entity with narrow indications, limited clinical support or high cost
  - Publication of new consensus paper for drugs and/or diseases
- Enlist multidisciplinary involvement
- Develop initiative proposal:
  - Describe initiative
  - Provide background literature
  - Review practices at other institutions when appropriate
  - Assess current MGH practice
  - Determine financial impact of initiative
  - Design implementation plan
  - Design outcome measures
- Present data at MESAC meeting and make appropriate recommendations

## Automatic Intravenous to Oral Protocol (see page 2 for more detail)

The Automatic Intravenous to Oral Protocol, coordinated by the MESAC utilization subcommittee, will be initiated in a few weeks. Per protocol, pharmacists will substitute equivalent oral medications for specific IV medications and doses. This protocol will cover adult patients only.

## MESAC Formulary Updates (see page 4 for more detail)

May 2005

- **Cinacalcet (Sensipar®):** Approved with Restrictions for lowering parathyroid levels
- **Duloxetine (Cymbalta®):** Approved for major depressive disorder and diabetic neuropathy
- **Meningococcal Polysaccharide Diphtheria Toxoid Conjugate Vaccine (Menactra®):** Approved for use in patients 11-55 years of age
- **Octreotide LAR (Somatostatin LAR®): Eliminate chemo designation:** Approved with Restrictions for certain non-oncologic uses in addition to current oncology uses

**AUTOMATIC INTRAVENOUS TO ORAL PROTOCOL**  
**MASSACHUSETTS GENERAL HOSPITAL**  
**DEPARTMENT OF PHARMACY**

**Scope/Definition:**

- Pharmacists will substitute equivalent oral medications for specific IV medications and doses.
- This protocol will cover adult patients only.

**Purpose:**

- Clinical and economic benefits are conferred to the patient and hospital when an early switch from IV to PO administration occurs.
- Discontinuing the IV line will improve quality of care by minimizing the risk of line infection, bacteremia, infiltration and non-infectious phlebitis, decreasing patient deconditioning, and expediting recovery to home.
- Oral therapy frees the patient from IV lines and increases the use of the gastrointestinal tract.
- This protocol includes the following drugs, all of which have excellent bioavailability: ciprofloxacin, clindamycin, doxycycline, fluconazole, levofloxacin, linezolid, metronidazole, and voriconazole.

**Procedure:**

1. Patients considered for IV to PO conversion should meet the following inclusion criteria and none of the exclusion criteria.

| Criteria  | Yes  | No   |
|---|--|--|
| <b><i>Inclusion Criteria</i></b>  |  |  |
| IV therapy for > 24 hours and one of the following: <ul style="list-style-type: none"> <li>• Tolerating diet more advanced than clear liquids</li> <li>• Tolerating PO medications</li> </ul> | <input type="checkbox"/><br><input type="checkbox"/> | <input type="checkbox"/><br><input type="checkbox"/> |
| <b><i>Exclusion Criteria:</i></b>   |  |  |
| • Infections requiring ICU level care or IV therapy (e.g. meningitis, endocarditis, osteomyelitis, pancreatitis)  | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| • Nausea and/or vomiting within past 24 hours   | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| • Has gastrectomy, ileus, gastric outlet or bowel obstruction, or altered G. I. Absorption  | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| • Has significant painful oral ulceration   | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| • TPN with an NPO order   | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| • Active GI bleed   | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| • Unable to swallow   | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| • Pre-op (NPO)  | <input type="checkbox"/>                             | <input type="checkbox"/>                             |
| <b>Eligible for IV to PO conversion?</b>  | <input type="checkbox"/>                             | <input type="checkbox"/>                             |

2. The pharmacist should collaborate with the nurse caring for the patient to assure that the patient meets criteria for conversion.
3. The pharmacist will enter the conversion order in OE stating in the instruction field the conversion is per “IV to PO protocol”.

**Pharmacist responsibilities:**

1. The decentralized pharmacist (day shift) conducts the IV to PO program 7 days a week.
2. Until MISYS implementation, the pharmacist will check the patient profiles on each of his/her units for the targeted medications.
3. After MISYS implementation,
  - a. The IV to PO list will be generated each morning and arranged by unit.
  - b. The decentralized pharmacist should pick up the IV to PO list in the central pharmacy/triage each morning.

**IV to ORAL CONVERSION**

| IV DRUG   | ORAL EQUIVALENT           |
|---|---------------------------|
| Clindamycin 600mg Q8H                                       | *Clindamycin 300mg QID    |
| Levofloxacin 500mg Q24H                                     | ♦Levofloxacin 500mg Q24H  |
| Ciprofloxacin 400 mg Q12H                                   | ♦Ciprofloxacin 500mg Q12H |
| Linezolid 600mg Q12H  | Linezolid 600mg Q12H      |
| Doxycycline 100mg Q12H                                      | Doxycycline 100mg Q12H    |
| Metronidazole 500mg Q8H                                     | Metronidazole 500mg Q8H   |
| Fluconazole 200mg Q24H<br>Higher doses can be converted 1:1 | Fluconazole 200mg Q24H    |
| Voriconazole 200mg Q12H                                     | Voriconazole 200mg Q12H   |

\* Patients should receive 300mg QID when converting from IV to PO clindamycin. When treating PID the clindamycin oral conversion dose should be 450mg QID.

♦ Hold tube feeds 1 hour before and 2 hours after administration and assure appropriate spacing of medications that contain divalent cations (Mg, Fe, Ca Salts).

# MESAC Formulary Updates

May 2005

Formulary additions:

- **Cinacalcet (Sensipar®): Approved with Restrictions**

Cinacalcet (Sensipar®) is a calcimimetic agent which lowers parathyroid levels by increasing the sensitivity of the calcium-sensing receptor to extracellular calcium. The reduction in parathyroid hormone is associated with a concomitant decrease in serum calcium levels. Cinacalcet (Sensipar®) was approved for addition to the Formulary with the following restriction: dialysis patients with hypercalcemia and secondary hyperparathyroidism who have been treated with oral or intravenous vitamin D analogues.

- **Duloxetine (Cymbalta®): Approved**

Duloxetine (Cymbalta®) is a potent inhibitor of neuronal serotonin and norepinephrine reuptake and a weak inhibitor of dopamine reuptake used in the treatment of major depressive disorder and diabetic neuropathy. Duloxetine (Cymbalta®) has no significant activity for muscarinic, cholinergic, H1-histaminergic, or alpha2-adrenergic receptors and does not possess MAO-inhibitory activity. The Committee approved duloxetine (Cymbalta®) for addition to the Formulary.

- **Meningococcal Polysaccharide Diphtheria Toxoid Conjugate Vaccine (Menactra®): Approved**

Meningococcal Polysaccharide Diphtheria Toxoid Conjugate Vaccine (Menactra®): is approved for use in patients 11-55 years of age. Conjugate vaccines prolong immune memory, have improved immunogenicity, and decrease nasopharyngeal carriage rates. In February 2005 the Advisory Committee of Immunization Practices (ACIP) to the CDC recommended administration of Menactra® to children 11-12 years old, teens entering high school, and college freshmen living in dormitories. Currently Menomune® has a place in therapy for younger children, pregnant women, and for adults over 55 who are at risk for meningitis. The Committee approved the addition of Meningococcal Polysaccharide Diphtheria Toxoid Conjugate Vaccine (Menactra®) to the Formulary.

- **Octreotide LAR (Somatostatin LAR®): Eliminate chemo designation: Approved with restrictions**

Octreotide LAR (Somatostatin LAR®) is a long-acting somatostatin analog that has been available in the MGH Chemotherapy Order Entry (COE) system only, partly due to its considerable cost. Octreotide LAR (Somatostatin LAR®) is FDA approved for 3 indications: acromegaly, carcinoid tumors, and vasoactive intestinal peptide tumors (VIPomas). There are numerous additional uses, many of which are non-oncology. The Committee approved the addition of Octreotide LAR (Somatostatin LAR®) to the Formulary with the following restriction: use is restricted to Oncology, GI, Endocrine, and Infectious Disease Departments.