

# Novant – Winston Salem Market Pharmacy & Therapeutics Update Drug Information for Health Care Professionals



Volume 4, Issue 7

September 14th, 2009

## Methylnaltrexone (Relistor®)

*Sara Szafran, PharmD*

*sszafran@novanthealth.org*

Methylnaltrexone is a new peripherally acting  $\mu$ -opioid receptor antagonist approved for the treatment of opioid-induced constipation. Methylnaltrexone is indicated for the palliative care patient population when response to other laxative therapy has not been sufficient.

In clinical trials, methylnaltrexone was evaluated against placebo in patients with advanced illness that failed traditional laxative therapy. In the treatment group 50-62% of patients had a bowel movement within 4 hours of receiving the drugs, compared to only 15% in the placebo group.

Methylnaltrexone is contraindicated in patients who have hypersensitivity to any of the components, and in patients with known or suspected mechanical gastrointestinal obstruction or acute surgical abdomen. The common adverse reactions with this agent include abdominal pain, flatulence, nausea, and diarrhea.

Methylnaltrexone is available as a 12 mg vial. It should be administered as a subcutaneous injection every other day as needed for opioid induced constipation. This agent is dosed based on patients' body weight in kilograms. For a patients weighing <62 kg a dose of 8 mg should be administered and for patients weighing >62 kg a 12 mg dose is appropriate.

Methylnaltrexone may be effective at relieving opioid induced constipation; however, it has not been proven to be effective in the treatment or prevention of post operative ileus and should be avoided for this use. Methylnaltrexone was approved by the pharmacy and therapeutics committee (P&T) for addition to formulary. A medication utilization evaluation will be performed to evaluate the outcomes after six months and results will be reported back to the P&T committee.

## Warfarin Flowsheet Available in Net Access

*Christopher Lowe, PharmD*

*clowe@novanthealth.org*

The Joint Commission 2008 National Patient Safety Goal 3E states that all institutions must have practices in place in order to reduce the likelihood of harm to a patient associated with the use of anticoagulation therapy. An anticoagulation flow sheet was developed by an interdisciplinary team involving pharmacy, nursing, physicians, and information technology to improve patient care and meet The Joint Commission's recommendation surrounding anticoagulation.

In May 2009, the flow sheet was first implemented via the paper based printout that was in the lab section of the patient chart. As of September 1<sup>st</sup>, the flow sheet is available in Net Access. This allows the prescribers to see the patient anticoagulation information in real time. The electronic flow sheet includes the same information as the paper printout; however the graph with the INR history will not be included due to technical limitations.

The flow sheet assists providers in recognizing dual anticoagulation therapy, including the coadministration of warfarin with heparin, fondaparinux, enoxaparin and argatroban.

### **Editorial Staff:**

Chris Lowe, PharmD  
Asst. Dir. Clinical Pharmacy Services

Kathryn Montanya, PharmD, FISMP  
Director of Pharmacy

Cheryl Marie Ezman, PharmD  
Clinical Pharmacy Manager

This new tool also identifies interacting medications that have been active on the patients profile within the past 48 hours. This allows providers the opportunity to predict fluctuations in the patients INR proactively and make any required adjustments. The medications include amiodarone, rifampin, moxifloxacin, ciprofloxacin, trimethoprim/sulfamethizole, metronidazole, and fluconazole. Please keep in mind this is not a complete list of interacting medications with warfarin, but some of the key drugs that compete with warfarin's metabolism and elimination. These agents and warfarin can be used simultaneously; however INRs will need to be monitored more closely.

Vitamin K use is also available in the flow sheet. This will enable prescribers to accurately view all doses of this reversal agent administered in the past 14 days.

## Rasburicase (Elitek®) fixed dosing

*Amy Dooley, PharmD, BCPS*  
*adooley@novanthealth.org*

In fast-growing and drug-sensitive cancers, chemotherapy can cause rapid destruction of tumor cells, leading to the release of intracellular substances into the bloodstream (tumor lysis syndrome, TLS). Metabolic disturbances include hyperuricemia, hyperkalemia, hyperphosphatemia, and hypocalcemia.

The prevention and treatment of hyperuricemia associated with TLS has traditionally included hydration with IV fluids and allopurinol, which inhibits the formation of uric acid. Once allopurinol has been initiated it can take 2-3 days for uric acid levels to begin to decrease.

Rasburicase is a recombinant urate-oxidase inhibitor that is FDA approved for the management of hyperuricemia associated with TLS in pediatric patients, but is used in adults for the same reason as an unlabelled indication. It converts uric acid to allantoin, an inactive and soluble metabolite – but does not inhibit the formation of new uric acid. After the first dose, most patients will have measurable reductions in uric acid within 4 hours. Traditional dosing, per the package insert, is 0.2 mg/kg/day for 5 days (~14 mg per day for a 70 kg patient), but several case series, studies, and abstracts have been published supporting the use of single, flat doses ranging from 3 to 7.5 mg.

A medication use evaluation looked at all patients at FMC receiving rasburicase between 5/2007-6/2009. 18 patients were evaluated, 5 of whom received a single fixed dose of either 3 or 6 mg. While weight-based dosing resulted in both larger mean and percentage decreases in uric acid from baseline, a single, fixed dose of rasburicase 3 or 6 mg resulted in serum uric acid levels within normal limits at 24 hours in 100% of patients. In August, P&T approved an automatic interchange for all rasburicase orders of more than 6 mg to a single, fixed dose of rasburicase 6 mg. Chilled uric acid levels should be monitored daily to evaluate the need for repeat dosing.

## Lacosamide (Vimpat®)

*Cheryl Ezman, PharmD*  
*cmezman@novanthealth.org*

Lacosamide, a new antiepileptic agent, was reviewed and added to the formulary during the September Pharmacy and Therapeutics Meeting. Lacosamide is indicated as adjunctive therapy in the treatment of partial onset seizures. The exact mechanism of action is unknown but it is thought to be effective by enhancing slow inactivation of voltage gated sodium channels and also by binding to collapsing response mediator protein. The medication was studied in 3 randomized double-blind placebo controlled trials in patients uncontrolled with 1-3 concomitant antiepileptic agents. Lacosamide significantly reduced frequency of seizures as well percentage of seizure free days versus placebo.

As with all antiepileptics there is an increased incidence of suicidal ideation in patients taking this medication. Lacosamide can also cause a dose dependant PR interval prolongation. Caution is recommended in patients with known cardiac conduction problems, patients with severe cardiac disease, and in patients taking other medications known to induce PR prolongation. The most common side effects associated with the drug include dizziness, nausea, and diplopia.

Lacosamide dosing starts at 50 mg BID and is increased weekly by 100 mg per day (divided) up to 200—400mg per day. Lacosamide can be administered IV or PO in a one to one conversion. The IV doses will be prepared by the pharmacy in 50 ml of normal saline and must be administered over 30—60 minutes.

## Online Triad Region Formulary of Approved Medications

**Please follow the link from the Triad Clinical Resources intranet page to view the new and improved online formulary.**