

SETON Network Notes

A Publication of the Pharmacy and Therapeutics Committee

Peramivir Intravenous: FDA Issues Emergency Use Authorization

Peramivir, a neuraminidase inhibitor, is an unapproved (investigational) antiviral drug available in an intravenous (IV) formulation. Peramivir IV is currently under development for treatment of acute influenza in patients who require hospitalization due to the severity of influenza virus infection.

The Food and Drug Administration (FDA) has issued an Emergency Use Authorization (EUA) to allow the use of Peramivir IV to treat certain adult and pediatric patients with suspected **or** laboratory confirmed 2009 H1N1 virus infection **or** infection due to nonsubtypable influenza A virus suspected to be 2009 H1N1 based on community epidemiology. Specifically, Peramivir is authorized only for the following patients who are admitted to a hospital:

- Adult patients for whom therapy with an IV agent is clinically appropriate, based upon one or more of the following reasons: 1) patient is not responding to either oral or inhaled antiviral therapy, 2) drug delivery by a route other than IV (e.g., enteral oseltamivir or inhaled zanamivir) is not expected to be dependable or is not feasible, or 3) the clinician judges IV therapy is appropriate due to other circumstances.
- Pediatric patients for whom an IV agent is clinically appropriate because: 1) patient is not responding to either oral or inhaled antiviral therapy, or 2) drug delivery by a route other than IV (e.g., enteral oseltamivir or inhaled zanamivir) is not expected to be dependable or is not feasible.

Peramivir will require an Infectious Diseases (ID) consult or verbal approval (at non-ID physician sites) within the SFH.

Due to this EUA status and the limited available safety data on peramivir, the FDA is requiring mandatory adverse event reporting by healthcare providers. This mandate will be important as it helps to define the safety profile of this unapproved drug. According to the FDA, healthcare providers must report adverse events and all medication errors associated with peramivir to the FDA's MedWatch program within seven calendar days from the onset of the adverse event. They must also conduct follow-up, requested by the FDA or the U.S. Centers for Disease Control and Prevention (CDC), related to any peramivir adverse event or medication error reports submitted to the FDA. Peramivir is currently the only intravenous treatment authorized for emergency use in H1N1 influenza infection. Peramivir should not be used for the treatment of seasonal influenza. Adverse events related to use of peramivir should be communicated to the FDA's MedWatch reporting program by telephone at 1-800-FDA-1088, by fax at 1-800-FDA-0178, online at <http://www.fda.gov/medwatch> or by mail to 5600 Fishers Lane, Rockville, Md., 20852-9787. You may ask a SFH pharmacist for assistance with this submission.

More information is available on the FDA's MedWatch Web site at <http://www.fda.gov/medwatch> -> Safety Information -> Safety Alerts for Human Medical Products -> 2009 -> Peramivir IV 10/24/09.

For additional information about the EUA and its requirements, healthcare providers should go to <http://www.cdc.gov/h1n1flu/eua/peramivir.htm>.

For questions or assistance regarding intravenous peramivir within the SFH, please contact one of the following persons:

- Terry Jaso, PharmD, ID Pharmacist, SMCA (pager: 604-0320)
- Kate Shea, PharmD ID Pharmacist, UMCB (pager: 603-1134)
- Jodi Klocek, PharmD, Network Pharmacy Clinical Manager (pager: 604-0569)

SFH Drug Formulary Addition – Prasugrel (Effient®)

Prasugrel (Effient®) is a new oral inhibitor of platelet aggregation similar to clopidogrel, which is also on the SFH drug formulary. The use of prasugrel is limited to STEMI and NSTEMI patients with acute coronary syndrome who are being managed with PCI. Prasugrel appears to be effective in patients who have failed clopidogrel for these indications.

Prasugrel Drug Information Highlights:

- Although prasugrel shows greater platelet inhibitory effect with more rapid onset than clopidogrel, its use is linked with an increased risk of major bleeding.
- Therapy should be initiated with a 60 mg oral loading dose, followed by 10 mg once daily.
- For patients ≥ 75 years of age, prasugrel is not recommended unless the patient is considered high risk (diabetes or prior MI).
- For patients weighing less than 60 kg, a 5 mg daily dose should be considered; however, the effectiveness and safety of the 5 mg dose has not been prospectively studied.
- **Black box warnings** include:
 - Prasugrel can cause significant, sometimes fatal bleeding.
 - Prasugrel use is contraindicated in patients with active pathological bleeding (e.g., peptic ulcer or intracranial hemorrhage) and in patients with a history of stroke or TIA.
 - Do not start prasugrel in patients likely to undergo CABG.
 - Discontinue prasugrel at least seven days prior to elective surgery.
 - In patients >75 years of age, prasugrel is generally not recommended because of increased risk of fatal and intracranial bleeding and uncertain benefit, except in high-risk patients (diabetes or prior MI).
 - Additional risk factors for bleeding include body weight <60 kg, propensity to bleed (recent trauma, surgery, GI bleeding, PUD, hepatic impairment) or concomitant use of medications that increase the risk of bleeding (warfarin, NSAIDs, CYP3A4 inducers).
 - When possible, manage bleeding without discontinuing prasugrel to maintain protection against cardiac events. Avoid abrupt discontinuation or lapses in therapy.
- Serious adverse reactions include bleeding and thrombotic thrombocytopenia purpura. Other common and important non-hemorrhagic adverse events (for prasugrel and clopidogrel) are severe thrombocytopenia, anemia, abnormal hepatic function, allergic reactions and angioedema. *As with any new drug, please notify the pharmacist if you suspect any adverse drug reactions.*

Other P&T News

- An automatic therapeutic interchange was approved for non-formulary long-acting beta-agonist and corticosteroid combination inhalers, budesonide/formoterol (Symbicort®) and fluticasone/salmeterol (Advair HFA®) to the formulary product, **fluticasone/salmeterol (Advair Diskus®)**. The only exception to the interchange is for patients younger than 10 years of age who are unable to master the drug powder inhalation technique. Advair HFA® may be prescribed for these patients.
- The network **Adult Rasburicase Policy** was revised to encourage the use of a single fixed 6 mg dose (non-FDA approved) for adult patients who meet criteria and are eligible to receive rasburicase for treatment/prevention of tumor lysis syndrome. A Network Adult Rasburicase Order Set was also approved and will be required when rasburicase is prescribed for adult patients.
- Healthcare providers should be aware of the potency change for **heparin products** manufactured and tested according to the new USP monograph and the possible clinical effects of the decrease in potency per USP unit. The FDA has asked all manufacturers to label their new products in a manner that will help healthcare providers differentiate them from the old products. Labels of most heparin products made according to the new standard will have an "N" in the lot number or following the expiration date. Products manufactured by Hospira can be identified by the number "82" or higher (e.g., 83, 84) at the start of their lot numbers. The Seton Pharmacy has not received any of the new heparin products to date. In an effort to safely transition to the new product, the Seton Pharmacy will consolidate the old heparin product by site and introduce the new product only after Seton Healthcare Providers have been notified.