Erythropoiesis Stimulating Agents (ESA)

For many years the pharmacy’s top drug expenditures were for ESA medications. ESAs have been in the news lately and rightly so. These medications, Procrit, Epogen and Aranesp are used to stimulate the bone marrow to produce red blood cells and have come under scrutiny by the FDA. The FDA is requiring that these medications, when used for chemotherapy induced anemia, be prescribed under a “risk management program” known as a risk evaluation and mitigation strategy (REMS). The issue at hand is that studies show that ESAs can increase the risk of tumor growth and shorten survival in patients with cancer who use these drugs. Studies also show that ESAs can increase the risk of heart attack, heart failure, stroke or blood clots in patients who use these drugs for other conditions.

As part of the REMS, a Medication Guide explaining the risks and benefits of ESAs must be provided to all patients receiving ESAs.

Amgen, the drugs manufacturer, was required to develop the ESA APPRISE (Assisting Providers and Cancer Patients with Risk Information for the Safe use of ESAs) Oncology program for healthcare professionals who prescribe ESAs to patients with cancer.

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Meet Julie Kalabalik, Pharmacy Resident

About myself: I earned my doctorate of pharmacy from St. John’s University College of Pharmacy and Allied Health Professions in May of 2008. During my pharmacy school years, I won internships at Pfizer, New York Presbyterian Columbia, and Ivax Pharmaceuticals. My clinical rotations included HUMC, the Hudson Valley VA, The Valley Hospital, Thomson Healthcare PDR, Beth Israel Medical Center, Memorial Sloane Kettering, MedWorld, and Hoboken University MC. I have earned the Mylan Pharmaceuticals, Pharmacists Society of the State of New York, Herbert and Patricia Kett, and the St. John’s University Scholastic Excellence Awards. Following graduation, I worked in retail pharmacy for one year. I started my post-graduate year one residency here at Valley in July of 2009.

Why I chose Valley Hospital residency: The Valley Hospital residency program was my top choice because of the diverse pharmacy services Valley provides. The clinical pharmacists’ roles in the ambulatory care services, such as the outpatient chemotherapy infusion center, renal dialysis center, and anticoagulation services, appealed to me. Also, during my rotation at Valley in pharmacy school, I worked with Valley employees who were knowledgeable and kind.

What I plan to accomplish during my residency: During my residency, I hope to expand my clinical knowledge, make interventions, and counsel patients and medical staff on proper medication therapy. I hope to discover my area of interest within pharmacy for a possible specialty. I am conducting research on the adherence to hospital criteria for the use of levalbuterol and am planning to research the effectiveness of pharmacist education provided to patients in ambulatory settings.
P&T Updates  drugs added to our formulary

► **Quetiapine Fumurate** (Seroquel XR) was added to the Valley Hospital Formulary to be used according to FDA labeled indications which are bipolar disorders and schizophrenias.

► **Alvimopan (Entereg), 12mg oral capsule,** added to the Valley Hospital formulary (limited to colorectal surgeons) for a trial period of 6 months so that the Hospital can track length of stay and readmission rates. Alvimopan is indicated for postoperative ileus, following partial large or small bowel resection surgery with primary anastomosis.

► **Cefixime (Suprax)** oral tablet (400mg) added to the Valley Hospital formulary with use restricted to the ED. Cefixime is the only oral agent recommended by the CDC for treatment of uncomplicated gonorrhea is a single dose of 400mg.

► **Methylnaltrexone Bromide** (Relistor) was added to the Valley Hospital formulary restricted for opioid induced constipation in patients with advanced illness who are receiving palliative care, when response to laxative therapy has not been sufficient only (NOT FOR USE for post-operative ileus or 1 week post Gastrointestinal surgeries.) Relistor is administered via subcutaneous injection with a max of 1 dose per 24 hour period.

Meet Fatima Torres, Pharmacy Resident

About me: I graduated in May 2009 from St. John’s University, Queens, NY with a Doctor of Pharmacy degree. After six years of pharmacy school, I decided to participate in an optional postgraduate year 1 (PGY-1) residency training program to advance my professional experiences beyond entry level pharmacy education. The Valley Hospital’s reputable residency program appealed to me because of its focus on both the institutional and ambulatory care pharmacy settings. Believing in The Valley Hospital mission and knowing about the diverse pharmacy practice experiences it offers made me eager to join the team when I successfully matched to this PGY-1 residency program.

Now as a pharmacy resident and licensed pharmacist for The Valley Health System, I have the opportunity to attend various rotations with clinical pharmacists, aid in conducting innovative research ideas, and speak to patients in community outreach programs. Some of the designated inpatient rotations include the emergency room, critical care, surgery and anesthesia, infectious disease, and cardiology, while outpatient rotations focus on oncology, anticoagulation management, and hemodialysis. In participating in this one year residency program, I look forward in collaborating with the healthcare team in order to provide safe and effective medical care for our patients and developing into a more knowledgeable and confident pharmacist.
Dosing is 0.15 mg/kg for < 84 pounds or > 251 pounds, 8 mg for 84 pounds to <136 pounds, and 12 mg for 136 pounds to 251 pounds. Monitoring for Relistor includes clinical alleviation of opioid-induced constipation and renal function.

- **Insulin Detamir (Levemir)** was added to the Valley Hospital formulary to be used for adult diabetes type 1 and 2 and for pediatric diabetes type 1 who require basal (long acting) insulin for the control of hyperglycemia with once or twice daily subcutaneous administration.

- **HumaPen Luxura** (non disposable pen w/ Humalog cartridge), Novolog flexpens, and Levamir flexpens were added to the Valley Hospital formulary for pediatric use only. Newly diagnosed patients will be taught on the unit and discharged with instructions for home use.

- **Dronedarone (Multaq)** was added to the formulary. FDA approved indication is to reduce the risk of cardiovascular hospitalization in patients with a paroxysmal or persistent atrial fibrillation (AF) or atrial flutter (AFL), with a recent episode of AF/AFL and associated cardiovascular risk factors, who are in sinus rhythm or who will be cardioverted. **BLACK BOX WARNING**: Multaq is an antiarrhythmic drug that is contraindicated in patients with NYHA Class IV heart failure, or NYHA Class II-III heart failure with a recent decompensation requiring hospitalization or referral to a specialized heart failure clinic.

- **Prasugrel (Effient)** to was added to the formulary for FDA approved indication of a reduction of thrombotic cardiovascular events (including stent thrombosis) in patients with acute coronary syndromes who are managed with a percutaneous coronary intervention.

- **Sitagliptin (Januvia)** was added to the formulary as a once daily oral medication FDA indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus.

- **Nebivolol (Bystolic)** is a long-acting cardioselective beta-1 adrenoceptor antagonist without membrane-stabilizing or intrinsic sympathomimetic activities. FDA approved indication is for the treatment of hypertension.

- **Iopamidol (Isovue)** was added to the formulary, restricted to radiology use, for its FDA approved indication of Angiography throughout cardiovascular system, adult and pediatric intravenous excretory urography, and intravenous adult and pediatric contrast enhancement of computed tomographic (CECT) head and body imaging. Cont. pg 4

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**Intervention summary (Top 9)**

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<thead>
<tr>
<th>Intervention Type</th>
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**Valley Health Pharmacy Rx**

The Luckow Pavilion features a **full-service retail Pharmacy** on the first floor. The Pharmacy is open Monday through Friday from 7:30 a.m. to 5:30 p.m., and Saturdays from 8 a.m. to 1 p.m. The Pharmacy is open to the entire community, including patients and employees from the Luckow Pavilion and The Valley Hospital. Physician offices can use the pharmacy to supply their office with needed medications.

In addition to filling prescriptions, the Pharmacy features gifts, candy, books and some over-the-counter products such as vitamins and cough/cold/allergy medications. Most prescription cards are accepted, and Visa, Mastercard, and American Express are also honored as well as payroll deduction.

Valley Health Pharmacy can meet **all** your prescription needs. They can also order any product and have it available in one business day. Just call (201) 634-5799 and place your order! There is a FREE delivery service to the hospital for employees!
Heart to Heart: Residents Reach Out to Heart Failure Patients
Julie Kalabalik, PharmD.

Heart to Heart is a heart failure community outreach program held at the Dorothy B. Kraft Center one evening every month. Patients who are seen by Valley physicians as an outpatient or who have been discharged from the Valley Hospital with a heart failure diagnosis or symptoms are offered to attend this free program. Nurse practitioners and pharmacy residents educate heart failure patients and their family members or caregivers about the disease state and medication therapy.

Pharmacy residents explain the various classes of medications used to treat heart failure, how they work, possible side effects, monitoring, and appropriate scheduling of medication administration. Also, although heart failure is the focus of the program, patients inquire about their medication therapy in general and receive advice and education on all disease topics. Living with heart failure can be intimidating for many patients. By means of this community outreach program, all attendees benefit from the support and one-on-one guidance provided by nurse practitioners and pharmacy residents. Through Heart to Heart, healthcare providers are helping patients learn how to live with heart failure successfully.