### **Generations+/Northern Manhattan**

### Volume V Issue IV October 2011 Network Pharmacy Newsletter

# **!!!** Drug Shortages haveTRIPLED in the Last Five Years !

### **Growing Drug Shortages**

Drugs in short supply are growing at an alarming rate and hospitals are working diligently to ensure that patient care is not compromised.

Injectable drugs have been one of the most affected in recent drug shortages. The shortages include vital medications such as antibiotics, analgesics (painkillers), anesthetics and more. Such shortages can compromise therapy or delay treatment, putting patients at risk.

On the hospital side, chemotherapy drugs and injectable electrolytes have been big problems recently. In the community setting, drugs such as metformin, methylphenidate, methylprednisolone, injectable vitamin B12, and oxycodone have been short.

Some of the most common reported reasons for drug shortages include manufacturing difficulties or natural disasters that affect production, reductions in the supply of raw materials, voluntary recalls, manufacturer business decisions, FDA enforcement actions to ensure public safety, and artificial shortages due to stockpiling.<sup>1</sup>

Drug shortages can be both expensive and time consuming for health care professionals and health care organizations, compromise patient care, and increase the risk for medication errors.1



#### **Avoiding Errors**

In the event of a drug shortage it's often necessary to switch to products with different concentrations or different labeling than pharmacy staff, nursing staff, and other providers are accustomed to using. This increases the risk

for mistakes. One in three respondents to an Institute for Safe

Medications Practices (ISMP) survey indicated that their facility had a near miss during the past year due to a drug shortage. One in four reported an actual error, and one in five reported an adverse patient

outcome.3

The Institute for Safe Medication Practices (ISMP) survey revealed that at least two deaths as a result of a morphine shortage.

According to a recent survey, the American Hospital Association (AHA) found:

- Hospitals had delayed treatment (82%) and more than half were not always able to provide patient with recommended treatment.
- Patients received a less effective drug (69%)
- Hospitals experienced drug shortage in all treatment categories
- Most hospitals rarely or never received advance notification of drug shortages (77%) or were informed about the cause of the shortage (67%)

#### **Managing Drug Shortages**

Even though most hospitals rarely receive advance notification of drug shortages; however, as soon as learning of an impending drug shortage an action plan must be established.

### There are two websites devoted to the drug shortage situation:

www.fda.gov/cder/drug/shortages (FDA's site which includes a list of medically necessary drugs in shortage) and www.ashp.org/shortage (ASHP's site, with a more comprehensive list of drug shortages.

It's important to consider different strategies for procuring drug products during a shortage. If a drug is short, you may be able to request a different generic or brand that is available from your wholesaler. Or you may be able to use a different strength, dosage form, or package size to fill an Rx, such as methylprednisolone bulk tablets instead of a methylprednisolone dose pack. Of course switching to a different drug altogether may be necessary.<sup>1,2</sup>

- 28 American Society of Health-System Pharmacists. Drug Shortages Resource Center. <u>http://www.ashp.ore/shortage</u>. (Accessed August 12, 2011). FDA. Frequently asked questions about drug shortages. <u>http://www.fda.ov/Drugs/DrugStafety/DrugShortages/cent/50796.htm</u>. (Accessed August 12, 2011). Anon. Drug shortages: national survey reveals high level of frustration, low level of safety. ISMP Medication Safety Alert. September 23, 2010. <u>www.ismp.org</u>. (Accessed August 11, 2011).

### Look A-like. Sound A-like Medications

#### LOOK ALIKE, SOUND ALIKE MEDICATION

Bacitracin is a topical antibiotic preparation that can be applied to the skin or eye.

Bacitracin ointment is applied to the skin whereas, Bacitracin **Ophthalmic** Ointment is a sterile preparation FDA approved for application to the eve.

As per manufacturer Bacitracin Ointment CANNOT be used in the eyes.

Only the Bacitracin Ophthalmic Ointment can be applied directly in the eye.



#### TO PREVENT LOOK ALIKE, SOUND ALIKE MEDICATION ERRORS:

- Separate locations of look alike *medications*.
- *Use look alike sound alike (LASA)* auxiliary stickers on bins containing the medication
- Train staff to recognize LASA errors
- For handwritten/oral prescriptions, do not make assumptions, call the prescriber to confirm medication.
- *Check patient's profile & review* medication list to prevent errors

# MEDICATION MANAGEMENT: CLOZAPINE

### WBC Count and ANC Value Requirements and Monitoring

Clozapine (Clozaril<sup>®</sup>) is used in the treatment of schizophrenia. It is associated with risk of agranulocytosis, a potentially fatal blood disorder (if undetected). Thus, it requires mandatory white blood cell (WBC) and absolute Neutrophil Count (ANC) monitoring.

In order to start Clozaril, the WBC must be at least 3500 mm<sup>3</sup>, and the ANC must be at least 2000 mm<sup>3</sup>. Both values are required in order to dispense Clozaril. Requirements are the following:

• Prescribers must register with the Clozaril National Registry (CNR). *The prescriber is responsible for registering patients.* 

This can be accomplished in two ways: a) by visiting <u>www.clozarilregistry.com</u> and registering on-line for electronic submission OR

b) using the form entitled "White Blood Cell / Absolute Neutrophil Count Reporting Form."

• The prescriber must obtain a WBC and an ANC value for the patient.

• Pharmacies that dispense Clozaril must be registered with CNR to purchase Clozaril from a wholesaler.

• Pharmacists must verify that patients with prescriptions for Clozaril are registered with CNR prior to dispensing.

The blood work result must be seen by the dispensing pharmacist prior to dispensing the drug. The blood work draw date may not be more than 7 days old in order for the pharmacist to dispense the medication. *If the blood values (WBC and ANC) are not available to the pharmacist, Clozaril may not be dispensed. For more information visit:* www.clozaril.com/hcp/treating/background.jsp 800-448-5938

http://www.clozaril.com/hcp/treating/wbc\_anc .jsp

### Ondansetron (Zofran) and Abnormal Heart Rhythms

The Food and Drug Administration (FDA) is mandating labeling changes for ondansetron (Zofran), a 5-HT3 receptor antagonist used to treat and prevent nausea caused by chemotherapy, radiation therapy, and surgery. \*

The current labeling states ondansetron may prolong the QT interval which can lead to Torsades de Pointes, a potentially fatal heart arrhythmia. Patients with existing heart conditions, such as congestive heart failure or bradyarrhythmias, or those with hypokalemia or hypomagnesemia are especially at risk for this effect.\*

The labeling changes for ondansetron include additional recommendations to avoid the drug in patients with congenital long QT syndrome and to monitor electrocardiogram in patients with congestive heart failure,

bradyarrhythmias, electrolyte abnormalities, and those taking other medications that prolong the QT interval.\*

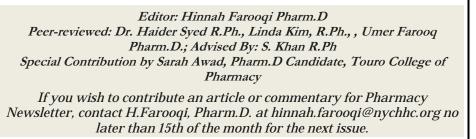
The FDA advises that patients currently taking ondansetron should consult their healthcare professional before stopping the medication. Additionally, Healthcare providers should report ondansetron related adverse effects to the MedWatch program. Additional information is available at the following links:

MedWatch (September 15, 2011): \*http://www.fda.gov/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Drugs/Dr



INFLUENZA VACCINES NOW AVAILABLE AT HHC

In the following areas: Infection Control (MLKP 6229), Unit Based Mobile Team, OHS (WP 453) Dates: 9/6/11 – 6/2012



# FDA: Medication Safety ALERT



Drug-induced myopathies (e.g. muscle weakness, pain and injury) are among the most frequent causes of muscle disease. At times, the combination of therapies can increase risk of myopathies. For example, the concomitant use of amlodipine (Norvasc®), a calcium channel blocker, and simvastatin (Zocor<sup>®</sup>), a HMG-CoA reductase inhibitor ("statin"), may greatly increase the plasma concentrations of simvastatin, possibly leading to an increased risk of statin-induced myopathy. Amlodipine inhibits the metabolism of simvastatin (by blocking enzyme CYP3A4) causing high plasma levels of statins (which is associated with an increased risk of musculoskeletal toxicity). The new FDA guidelines: Limit simvastation to 20mg/day in patients taking amlodipine. In patients who need simvastation 40mg/day consider switching patient to other statins such as pravastatin, atorvastatin and rosuvastatin (if feasible) All patients receiving statin therapy should be counseled to guickly report any unexplained muscle pain or weakness, especially if fever, malaise and/or dark colored urine are present. Obtain liver function tests and creatine phosphokinase levels prior to therapy and then periodically to assess any drug induced myopathy.

CONTRAINDICAT- ED WITH SIMVASTATIN	AVOID SIMVASTATIN DOSES OF >10MG/DAY*	AVOID SIMVASTATIN DOSES OF >20MG/DAY*
• Itraconazole	Amiodarone	Amlodipine
Ketoconazole		
Posaconazole	Verapamil	Ranolazine
• Erythromycin		
• Clarithromycin	Diltiazem	
• Telithromycin		
<ul> <li>HIV protease inhibitors</li> </ul>		
Nefazodone		
• Gemfibrozil		
• Cyclosporine		> (greater than)*
• Danazol		(6)