



State University of New York Downstate Medical Center - University Hospital of Brooklyn

Department of Pharmacy Services

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News & Noteworthy: Opioid Overdose Prevention with Single-Step Intranasal Naloxone

by Robert Pinkhasov, PharmD Candidate, Long Island University

Drug abuse and overdose deaths are major issues in our society today. Easy accessibility of opioids and their derivatives remain a concern. In 2006, the NYS Department of Health authorized non-medical persons to administer naloxone with the goal of preventing opioid/heroin overdoses from becoming fatal in the community. Naloxone is the first-line antidote in an opioid overdose. To increase the availability of naloxone in the communities even before the arrival of emergency personnel, registered Opioid Overdose Prevention Programs (OOPP) can provide naloxone for opioid overdose prevention free of charge to patients and caregivers.

The purpose of the OOPP is to increase awareness and to minimize deaths due to opioid overdose. Designated approved opioid overdose trainers (e.g., physicians, physician assistants, social workers) educate and certify trained overdose responders to recognize signs of potential opioid overdose and to administer naloxone. Trained overdose responders may include patients, caregivers/parents, and friends of patients receiving chronic opioid therapy. After completing the program, responders receive two doses of single-step intranasal naloxone (Narcan[®] Nasal Spray) in a naloxone kit. In the event that the patient does not respond within the first 2-3 minutes after the first dose, the second dose from the kit may be used. In the meantime, emergency service personnel should be called. For trained responders, certification needs to be renewed every two years.

Currently, University Hospital of Brooklyn is in the process of implementing OOPP in the Emergency Department and the STAR Health Center, improving access to the potentially life-saving drug naloxone in an easy-to administer form.

Pharmacy & Therapeutics Committee Updates

by Nubriel Hernandez, BA, PharmD, Pharmacy Practice Resident

Meeting Months: June 2017 through September 2017

Policies and Protocols:

- ◆ (Updated) Protocol "Adult Prevention and Treatment of Hypoglycemia"
- ◆ (Updated) Policy "CII Safe Policy"
- ◆ (Updated) Protocol "Adult Diabetic Ketoacidosis and Hyperosmolar Hyperglycemic State Treatment Guideline"
- ◆ (Updated) Protocol "Pediatric Anemia Management Protocol"
- ◆ New Policy "Opioid Overdose Prevention Program"
- ◆ (Updated) Policy "Pyxis Override List and Access"

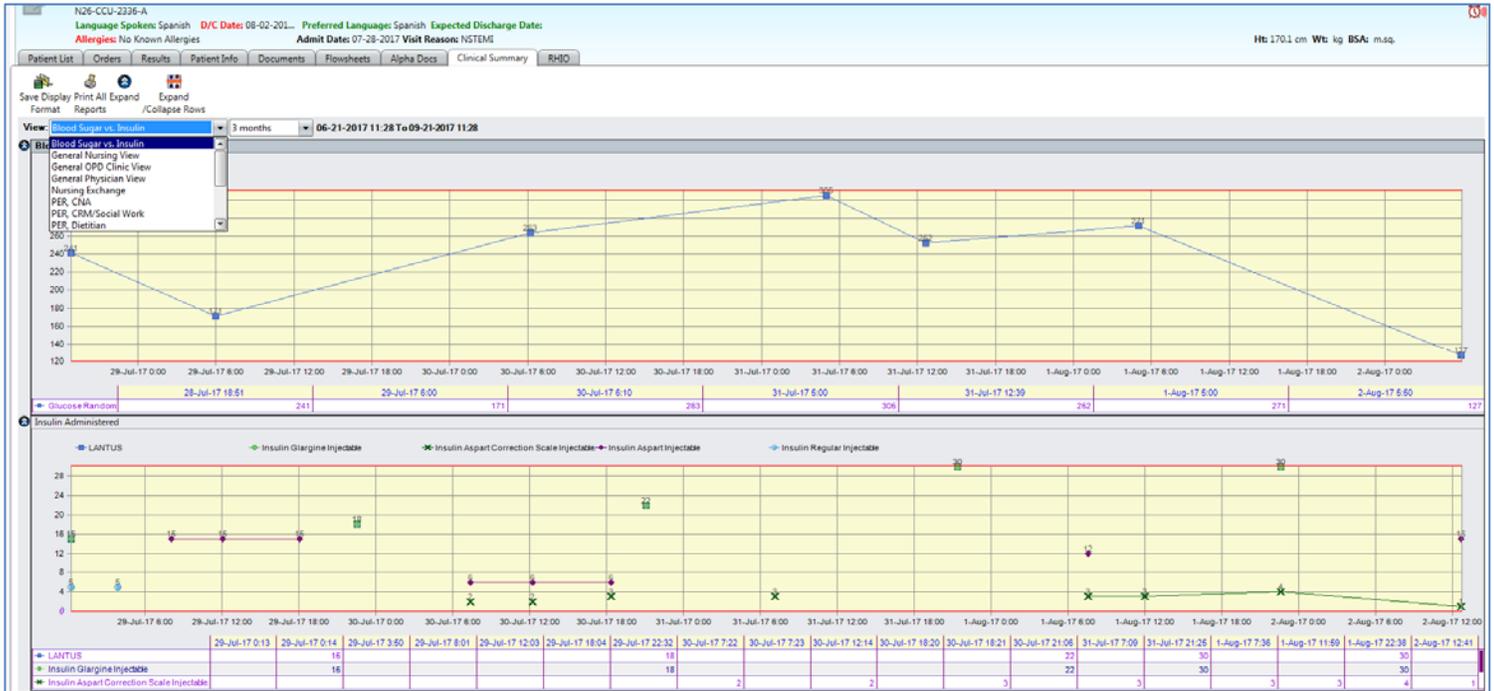
Formulary Changes:

- ◆ Change of torsemide status from non-formulary to formulary
- ◆ Change of Quadacel[®] vaccine status from non-formulary to formulary
- ◆ Change of Typhim Vi[®] vaccine status from non-formulary to formulary

Technology Updates: Blood Glucose Charting Tool

by Michael Oji, MS, Informatics Project Manager; Jesus S Salvacion, MSN, Informatics Project Manager; Laurie Ferguson, PharmD, MHA, Informatics Pharmacist

Now available in the Clinical Summary tab in HealthBridge, the Blood Glucose Charting Tool graphs blood glucose values and insulin doses administered in one view for hospitalized adult patients.

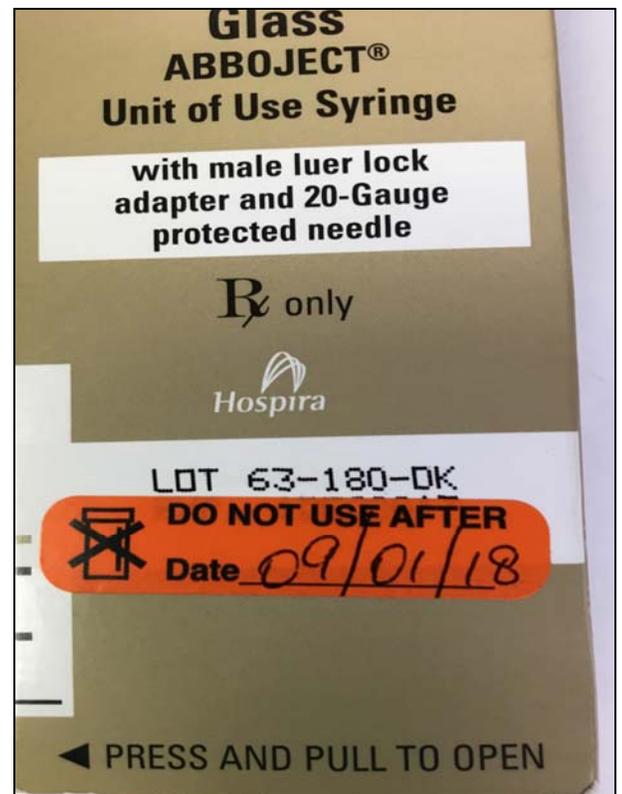


Formulary Updates: FDA-Approved Extended-Use Dates for Syringes

by I. Ian Richards, PharmD, Pharmacy Supervisor

Hospira, a Pfizer company and the nation's largest supplier of generic injectable drugs, has been experiencing manufacturing delays leading to national backorders of critical medications. Due to the ongoing shortages of injectable drugs used in critical care areas and emergency carts, the Food and Drug Administration (FDA) has stepped in and authorized the publication of extended-use dates for emergency syringes provided by Pfizer. For the full list of products and lot numbers impacted, please see the FDA communication at <https://www.fda.gov/Drugs/DrugSafety/DrugShortages/ucm563360.htm>.

The Pharmacy Department will use this information to relabel emergency syringes with the new dating provided by the Food and Drug Administration. For any additional questions, please contact the Pharmacy Department.



Pharmacy Focus: Recommendations for Influenza 2017-2018 Season

by LilyAnn Jeu, PharmD, BCPS, CPHQ, Medication Safety/Internal Medicine Clinical Pharmacist

Just prior to the start of the influenza season, the Centers for Disease Control and Prevention (CDC) released the following new recommendations for preventing transmission of the influenza virus for the current flu season.¹

First, the CDC renewed the recommendation NOT to use nasal spray flu vaccine due to lack of efficacy observed in previous years. Next, flu vaccines have been updated to have more comparable levels of the circulating influenza A (H1N1) component. Pregnant women are now recommended to receive any licensed and age-appropriate flu vaccine, rather than previously to be recommended to only receive inactivated influenza vaccine.

With the start of the new flu season, two new quadrivalent formulations have also been introduced - Afluria Quadrivalent[®] and FluBlok Quadrivalent[®]. In addition, the earliest age to use FluLaval Quadrivalent[®] has been lowered from 3 years to 6 months, while the age to use trivalent Afluria[®] has been lowered from 9 years to 5 years to be consistent with labeling from the Food and Drug Administration.

FDA-Approved Age Ranges (in Gray) for Flu Vaccines ² (Not all are available at University Hospital of Brooklyn)								
	6 mn	2 yr	3yr	4 yr	5 yr	18 yr	50 yr	65 yr+
FluLaval Quadrivalent								
Fluzone Quadrivalent								
Fluarix Quadrivalent								
Flucelvax Quadrivalent								
Fluvirin (Trivalent)								
Afluria								
Alfuria Quadrivalent								
Fluzone Intraderm Quad								
Fluad (Trivalent)								
Fluzone High-Dose (Tri)								
FluBlok								
FluBlok Quad								
FluMist Quad								

¹ <https://www.cdc.gov/flu/about/season/flu-season-2017-2018.htm>

² <https://www.cdc.gov/mmwr/volumes/66/rr/pdfs/rr6602.pdf>

Featured patient-care question

Nurses Want To Know ...

Q: Which influenza vaccine should be given to patients with egg allergies?

A: According to the CDC recommendations from the 2016-2017 season, patients who experience only hives after exposure to eggs may still receive any form of flu vaccine. Patients with egg allergy with any reaction other than hives (e.g., angioedema, respiratory distress, lightheadedness), or who have required epinephrine or another emergency intervention following egg exposure, may also receive any licensed and age-appropriate influenza vaccine. CDC recommends this latter group of patients receive the flu vaccine in a medical setting to allow monitoring and intervention by health-care providers who can recognize and manage severe allergic reactions. At University Hospital of Brooklyn, prescribers may order the brand product "FluBlok" for patients with a severe egg allergy.

Spotlight on Safety: Rated "R" Medication Orders

by LilyAnn Jeu, PharmD, Medication Safety/Internal Medicine Clinical Pharmacist

Warning: Orders Expiring in 48 Hours or Less

Patient List Tab flags "Orders Pending Review"

Orders Tab shows "R"

The duration of medication orders for hospitalized patients varies according to the type of medication, expected course of therapy, and regulatory restrictions (e.g., New York State law for controlled substance orders). Most chronic oral medications can be ordered for up to 30 days without the need for renewal prior to discharge. Many orders for intravenous medications are preconfigured in HealthBridge for the average expected duration of use or expected length of stay (e.g., 7 days for empiric IV antibiotic therapy).

To avoid the risk of missing medication doses from expired orders, clinicians can identify orders that will expire in 48 hours or less. HealthBridge flags these orders on the "Patient List" tab as "Orders Pending Review" and on the "Orders" tab with a red "R".

Clinical Pearls: Neuropathic Pain and Renal Disease

by Tavajay Campbell, BA, PharmD, Pharmacy Resident

Neuropathic pain, which results from a lesion or disease affecting the somatosensory system, often leaves patients with impaired function, impaired sleep, depressed mood and lower health-related quality of life. Neuropathic pain can be addressed pharmacologically through many different agents. However, selecting which agent to use that maximizes efficacy without harm can sometimes be tricky, as in the case of patients with renal dysfunction.

Impaired renal function presents an obstacle for the treatment of neuropathic pain because several pharmacologic options are renally eliminated and may require dosage adjustment. For example, gabapentin and pregabalin have over five dose range recommendations based on creatinine clearance (CrCl). Duloxetine, a selective noradrenergic reuptake inhibitor (SNRI) indicated for diabetic peripheral neuropathy and fibromyalgia, is contraindicated for patients with CrCl < 30 mL/min. Another SNRI, venlafaxine, can be used in patients with CrCl as low as 10 mL/min with dosage reductions between 25-50% and in hemodialysis patients with 50% dose reduction. The tricyclic antidepressants (TCAs) nortriptyline and amitriptyline have renally eliminated active metabolites, so doses should be reduced and titrated slowly.

When faced with these limitations, the selection of an alternative therapy for this patient population should take in consideration several factors such as the age of the patient, comorbid conditions, and adverse effects. TCAs should be avoided in the elderly, patients with benign prostatic hyperplasia or patients with recent myocardial infarction as they may worsen these conditions. SNRI agents have been associated with increases in blood pressure, so these should be avoided in patients with uncontrolled hypertension.

Drug interactions may also pose a concern, as gabapentin absorption may be decreased by aluminum- and magnesium-containing antacids. Tramadol remains an alternative option to the first line agents. Immediate release tablets may be used every 12 hours in patients with a CrCl under 30 mL/min-max dose of 200mg/day. Finally, lidocaine patch is the only topical first-line agent for neuropathic pain. It is generally safe in patients with impaired renal function and has minimal side effects, but it may not provide sufficient analgesia compared to the systemic agents.

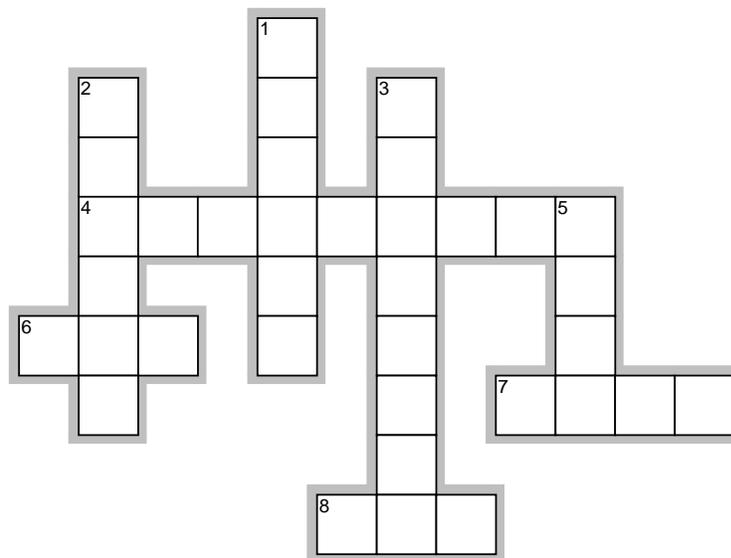
References:

1. O'Connor AB, Dworkin RH. Treatment of neuropathic pain: an overview of recent guidelines. *Am J Med* 2009;122(Suppl):S22-32.
2. Haanpää ML, Gourlay GK, Kent JL, et al. Treatment Considerations for Patients With Neuropathic Pain and Other Medical Comorbidities. *Mayo Clinic Proceedings*. 2010;85(3 Suppl):S15-S25.
3. Dworkin RH, O'Connor AB, Audette J, et al. Recommendations for the Pharmacological Management of Neuropathic Pain: An Overview and Literature Update. *Mayo Clinic Proceedings*. 2010;85(3 Suppl):S3-S14.

Crossword Puzzle:

Breathe and Relax – Asthma Care

by Ada Ni, PharmD Candidate, Long Island University



Across

4. A common short-acting (rescue) inhaler for acute asthma attacks
6. Measured amount of air forcefully exhaled in one second (____)
7. Abbreviation for the drug class for ipratropium bromide

Down

1. Rinsing and spitting after inhaled corticosteroid use prevents _____
2. Device to enhance drug delivery to lungs and reduce oropharyngeal drug deposition
3. A high-pitched whistling sound due to airway obstruction
5. Abbreviation for drug class to avoid as monotherapy due to risk of asthma-related death (FDA Black Box Warning)

Answers to Crossword Puzzle:

Across: 4. Albuterol 6. FEV 7. LAMA
Down: 1. Thrush 2. Spacer 3. Wheezing 5. LABA



Team Tip of the Day

It's Flu Season!

Get your flu shot from
 Employee Health Services now
 or stop by Sodexo Court during
 the October Flu Fair
 (October 24-26th, 2017)

