OUR LADY OF THE LAKE RMC

InPharmation

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Staff Spotlight

Victoria Perins, CPhT

Favorite Scripture: Psalm 23
"The LORD is my shepherd; I shall not want.
He maketh me to lie down in green pastures: he leadeth me beside the still waters. He restoreth my soul: he leadeth me in the paths of righteousness for his name's sake. Yea, though I walk through the valley of the shadow of death, I will fear no evil: for thou art with me; thy rod and thy staff they comfort me. Thou preparest a table before me in the presence of mine enemies: thou anointest my head with oil; my cup runneth over. Surely goodness and mercy shall follow me all the days of my life: and I will dwell in the house of the LORD for ever."

Victoria Perkins is a new pharmacy technician here at Our Lady of the Lake. She is from Zachary, Louisiana, and when she is not at work you can either find her either at school or church. Before she leaves her house to go anywhere, she always prays and asks the Lord to cover her day and give her a safe journey as she travels to wherever she is needed that day. Victoria's favorite part of being a technician here at OLOL, is being able to pray with the patients. She also enjoys helping others who are confused with their medications. If she could change one thing in this world, it would be to put prayer back into our schools, and for our world to be more focused on the Lord. Her dream vacation is to go visit Jerusalem one day! Her favorite hobby is spending time with her family, and enjoying any meal with seafood in it.

Vaccination Update: Influenza and Pneumococcal

By Stephanie Chang, PharmD and Lauren Linder, PharmD

Influenza

The Centers for Disease Control and Prevention has released recommendations for influenza vaccines for 2015-2016. The composition of the vaccine is different from 2014-2015. The influenza A H3N2 virus and the influenza B (Yamagata lineage) virus strains have changed from the previous year, while the influenza A H1N1 virus and influenza B (Victoria lineage) virus remain the same. The compositions of vaccines for this season are listed below:

Trivalent	H1N1, H3N2, influenza B (Yamagata lineage)
Quadrivalent	H1N1, H3N2, influenza B (Yamagata lineage), influenza B (Victoria lineage)

Recommendations:

- For healthy people 2 to 49 years of age with no precautions or contraindications, either LAIV4 (FluMist) or inactivated influenza vaccine can be used. There is no longer a preference for LAIV4 in children ages 2 to 8. LAIV4 is not clearly superior based on new data.
- No preference is given to any of the influenza vaccines for persons for whom more than one vaccine is appropriate and available.
- FluBlok is now approved for individuals ≥18 years, and should be used in adults with hives or a severe allergic reaction to eggs (e.g., hypotension, wheezing, etc).
- FluZone Intradermal is now a quadrivalent vaccine. Fluarix and FluLaval are now available only as a quadrivalent product. FluMist is only available as a quadrivalent product.

Reminder: All employees must receive their flu vaccine by December 1st or they will be required to wear a mask.

Brand Name	Manufacturer	Route	Approved Ages for Use
Quadrivalent live			
FluMist	MedImmune	Intranasal	2-49 years
Quadrivalent inactive			
Fluarix	GSK	IM	≥3 years
FluLaval	ID Biomedical	IM	≥3 years
Fluzone	Sanofi Pasteur	IM	≥6 months
Fluzone Intradermal	Sanofi Pasteur	Intradermal	18-64 years
Trivalent inactivated			
Afluria	CSL	IM	≥5 years
Flucelvax	Novartis	IM	≥18 years
Fluvirin	Novartis	IM	≥4 years
Fluzone	Sanofi Pasteur	IM	≥6 months
Fluzone High-Dose	Sanofi Pasteur	IM	≥65 years
Trivalent recombinant			
FluBlok	Protein Sciences	IM	≥18 years

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Formulary Changes

Removed from formulary:

- Otic preparations: Floxacin (ofloxacin), Cortisporin solution (polymyxin B, neomycin, hydrocortisone), Pediotic (polymyxin B, neomycin, hydrocortisone), Gentamicin + betamethasone
- Oral antifungals: griseofulvin and terbinafine tablets
- Amylin Analog (SQ) (pramlintide)
- Meglitinide class (nateglinide and repaglinide)
- Alpha glucosidase inhibitors (acarbose and miglitol)

New therapeutic interchanges:

- Namenda XR to Namenda IR
- Brinzolamid (Azopt) 1 drop affected eye TID --> Trusopt 1 drop to affected eye TID
- Docusate 50mg to 100mg
- Fosrenal 250mg (as prescribed) to Renvela 800mg (as prescribed)Fosrenal 500mg (as prescribed) to Renvela 1600mg (as prescribed)
- Fosrenal 750mg (as prescribed) to Renvela 2400mg (as prescribed)
- Fosrenal 1000mg (as prescribed) to Renvela 3200mg (as prescribed)
- Second Generation Antihistamines (orally-disintegrating loratadine to regular release loratadine)
- Inhaled Corticosteroids – Arnuity interchange will not include pediatrics

Patient Safety Corner

Safety Opportunities:

Process change in preparing and checking chemotherapy doses on DoseEdge

Due to repeated reports of infusion volume and infusion duration discrepancies, the IV room will no longer use the repeater pump to prepare chemotherapy orders. All volume being transferred will be via syringes.

Pharmacist Duties:

- Check the bag from which the fluid is being transferred
- Check all syringes used to draw up volume
- Check all empty syringes once volume has been transferred

Vaccination Update (cont)

Pneumococcal

Pneumococcal infections are the leading cause of vaccine-preventable death in the United States. There are over 90 serotypes of *Streptococcus pneumoniae.* Vaccines recommended to decrease invasive pneumococcal disease. Pneumococcal pneumonia leads to nearly 400,000 hospitalizations per year with a 5-7% mortality rate. There are about 12,000 cases per yeat of pneumococcal bacteremia. Pneumococcal meningitis results in 3,000 cases per year, with an approximately 30% mortality rate, increasing up to 80% in elderly patients. There are two types of pneumococcal vaccines.

Pneumococcal Polysaccharide Vaccine 23 valent (PPSV23)
Pneumovax 23 indicated for:

- All patients ≥ 65
  - ◊ Regardless of vaccination history
- Immunocompetent patients ages 19-64
  - ◊ Have underlying medical condition
- Revaccination
  - ◊ Age ≥ 65 (plus the following)
    - ♦ Initial pneumovax 23 dose ≥ 5 years ago & given when ≤ 65
  - ◊ Immunocomprised Ages 2-64
    - ♦ Initial pneumovax 23 dose ≥ 5 years ago
- Must wait a minimum of 5 years between PPSV23 doses

Pneumococcal Conjugate Vaccine 13-Valent (PCV13)
Prevnar 13 indicated for:

- Patients ≥ 65 years of age
- Patients ≥ 19 years of age
  - ◊ Underlying medical conditions

If the patient has not received either vaccine previously:

- Prevnar 13 should be given first
- A minimum of 8 weeks should elapse prior to giving the first dose of Pneumovax 23
  - ◊ Preferably 6 to 12 months

If the patient has previously received a dose of Pneumovax 23:

- Prevnar 13 should be given not less than 1 year after the last dose of Pneumovax 23

For more information on these vaccines and specific populations, please visit the CDC's website.
http://www.cdc.gov/vaccines/schedules/hcp/index.html

Regulatory

Recent FDA Drug Approvals

- **Varubi (Rolapitant)** an oral substance P/ neurokinin 1 receptor antagonist for chemotherapy induced nausea and vomiting in adults
- **Xuriden (Uridine Triacetate)** an oral antidote for fluorouracil overdose
- **Vraylar (cariprazine)** oral atypical antipsychotic for treatment of Schizophrenia and acutre treatment of manic or mixed episodes of Bipolar disorder (not approved for dementia related psychosis)
- **Lonsurf (Trifluridine + tipiracil)** oral combination antineoplastic agent for treatment of metastatic colorectal cancer in patients who have been previously treated with fluoropyrimidine-, oxaliplatin- and irinotecan-based chemotherapy, an anti-VEGF biological therapy, and if RAS wild-type, an anti -EGFR therapy.
- **Tresiba (Insulin degludec)** new long acting injectable insulin, expected availability in first quarter 2016
- **Ryzodeg 70/30 (Insulin degludec + insulin aspart)** combination of new long-acting insulin with rapid acting insulin aspart

FDA Drug Recalls:

None affecting OLOL.

New CMS Core Measure

On October 1st CMS began the implementation process for a new core measure, titled SEP-1. SEP-1 seeks to assess compliance to guidelines regarding the care of patients presenting with severe sepsis or septic shock. CMS is examining compliance to the specific 3 hour and 6 hour bundles that were recommended by the Surviving Sepsis Campaign in the past. These bundles provide key treatment recommendations that should be completed within the specified 3 hour or 6 hour time frame, in order to decrease the risk of mortality in patients with sepsis. The components of each of the bundles are listed below.

To be completed within 3 hours of presentation	To be completed within 6 hours of presentation
• Measure lactate level • Obtain blood culture prior to antibiotic administration • Administer broad spectrum antibiotics • Administer 30mL/kg crystalloid for hypotension or lactate ≥ 4mmol/L	• Apply vasopressors (for hypotension refractory to initial fluid resuscitation) to maintain MAP ≥ 65 mmHg • If persistent arterial hypotension despite volume resuscitation (septic shock) or initial lactate ≥ 4mmol/L re-assess volume status and tissue perfusion and document findings • Re-measure lactate if it was initially elevated

Compliance will be met if all of the above criteria are completed and *documented* in the patient chart. If the patient presents with severe sepsis (SIRS criteria + suspected infection + evidence of end organ damage) the 3 hour bundle must be completed, if presentation is that of septic shock (severe sepsis+ refractory hypotension after fluid challenge) then the 6 hour bundle must be completed. If any part of the bundle is missing when data extractors review patient charts, that patient will not meet the standard and subsequently count against our score for compliance. This new measure applies to all adults > 18 years of age presenting either in the ED or on the floor, thus timely administration of medications is going to be a joint effort amongst pharmacy, nursing, and prescribers in order to meet compliance and ensure full reimbursement in the future.

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Dates to Remember

October 20th— 23rd : Pharmacy Week

October 21st: Lauren Linder's Seminar "Atypical in all the right ways? An evaluation of cariprazine (Vraylar), the newest atypical antipsychotic "

October 28th: Stephanie Chang's Seminar "Combination therapy in the management of invasive MRSA infections"

November 1st: Open enrollment for benefits begins

November 4th, 11th, and 18th: Lunch N' Learn presentations

November 6th: Newsletter Content Due