PharmacyLink

A newsletter for residents served by our contracted long-term care facilities | ***Winter 2015***

Background: Pneumococcal Disease in Persons Aged 65 Years and Older

Pneumococcal (Streptococcus pneumonia) disease remains a leading infectious cause of severe illness among adults aged 65 years and older. Serious infections, or invasive pneumococcal disease (IPD), caused by S. pneumoniae may present as bacteremia, meningitis, or pneumonia. Individuals at greatest risk for serious illness caused by S. pneumoniae include those who have had a recent infection with influenza and possibly other viral respiratory tract infections, chronic heart, pulmonary, liver or renal conditions, asplenia, cigarette smoking, cerebral spinal fluid leak and decreased immune function from disease or drugs.

Conditions that increase risk for Invasive Pneumococcal Disease include:

- Decreased immune function
- Asplenia (functional or anatomic)
- Chronic heart, pulmonary, liver or renal disease
- Cigarette smoking
- Cerebrospinal fluid (CSF) leak

Epidemiology of Pneumococcal Disease Among Adults Aged 65 Years and Older

S. pneumoniae is a human pathogen with the reservoir being the nasopharynx of asymptomatic carriers. Transmission occurs as a direct result of person-to-person contact via respiratory droplets and by autoinoculation (spreading from one part of the body to another) in an individual carrier.

Pneumococcal Disease Epidemiology

- Reservoir - Human carriers
- Transmission - Respiratory Autoinoculation
- Temporal pattern - Winter and early spring
- Communicability – Unknown and occurs probably as long as organism is in respiratory secretions

Why the Addition of 13-Valent Pneumococcal Conjugate Vaccine (PCV13) In Series with 23-Valent Pneumococcal Polysaccharide Vaccine (PPSV23) Among Adults Aged 65 Years and Older?

The use of a 7-valent pneumococcal vaccine (PCV7) since 2000 and a 13-valent pneumococcal vaccine (PCV13) since 2010 in children has indirectly reduced pneumococcal infections within the adult population aged 65 years and older. From 2010 to 2013, the incidence of IPD in adults aged 65 years and older caused by pneumococcal serotypes found in PCV13 declined by approximately 50 percent. It is estimated that 20-25% of IPD cases and 10% of community-acquired pneumonia (CAP) cases in adults aged 65 ears or greater are caused by PCV13 serotypes and potentially preventable.

In light of the results from that randomized placebo-controlled trial evaluated efficacy of PCV13 for preventing community-acquired pneumonia among approximately 85,000 adults aged 65 years and older with no prior pneumococcal vaccination history (CAPiTA trial), the Advisory Committee on Immunization Practices (ACIP) recommends routine use of 13-valent pneumococcal conjugate vaccine (PCV13 [Prevnar 13]) in adults aged 65 years and older. PCV13 should be administered in series with the currently recommended 23-valent pneumococcal polysaccharide vaccine (PPSV23 [Pneumovax23]).

Health Nugget

Chronic Sleep Deprivation

- One in five American adults show the signs of chronic sleep deprivation.
- We sleep about 20-30 minutes less now than 10 years ago.
- Sleep can affect memory, add stress and potentially cause unwanted weight gain.
- Quality and duration of sleep is important. Often habits or medications can interrupt the quality of our sleep.
- Studies show that people receiving 7 or more hours of sleep per night have lower cardiovascular disease and risk of death.

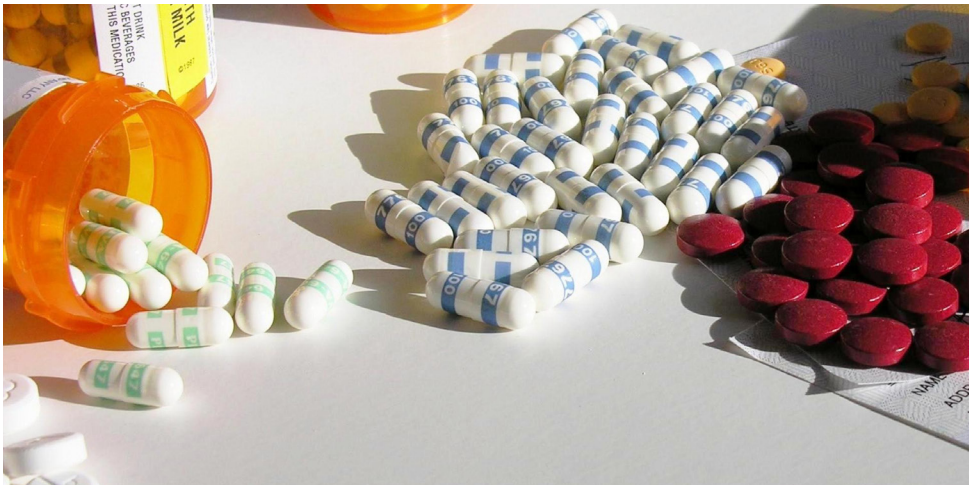
Ref.
http://sleepfoundation.org/sleep-news/findings-reveal-brain-mechanisms-work-during-sleep, www.Lake Union Herald.org Healthy Choices, Feb. 2015

Reserve your 2015-16 Flu Vaccines Now!

Flu season is unpredictable. Because of the variation from year to year, understanding the flu vaccine supply and guidelines is important as you prepare for the upcoming season.

As you know, healthcare providers play a critical role in gearing up for a new flu season and because every flu season is unique, protecting your facility, and your patients and residents depends on solid infection prevention techniques, as well as the seasonal forecast and last year's numbers.

The McLaren Pharmacy is now accepting flu vaccine pre-orders for the 2015-16 season. Pneumonia vaccines are also available for pre-order. You should base your order on the needs of your facility, including taking into consideration if you plan to offer a flu clinic at your facility. For more information, or to place a pre-order for your vaccines, contact pharmacy tech, Megan Futach at (586) 212-7431 (megan.futach@mclaren.org).



New Medication Edoxaban Snapshot: SAVAYSA®

Approved Indications: – To reduce the risk of stroke and embolism in those with atrial fibrillation not caused by a heart valve issue. Other indications include DVT and PE in those who have been treated with an anti-clotting medication for 5-10 days.

Common Side Effects: – Bleeding and Anemia.

Black Box Warning: – Discontinuation of medication too quickly may result in increased risk of stroke. Spinal or epidural hematomas may occur in those receiving spinal anesthesia or a spinal puncture.

Prescribing: – (Reference Clinical Pharmacology 2015)

Switching from another anticoagulant to edoxaban

- *Converting from warfarin or other Vitamin K antagonists to edoxaban:* Discontinue warfarin and start edoxaban when the INR is <= 2.5.
- *Converting from an oral anticoagulant other than warfarin or other vitamin K antagonists to edoxaban:* Discontinue current oral anticoagulant and start edoxaban at the time of the next scheduled dose of the other oral anticoagulant.
- *Converting from a low molecular weight heparin (LMWH) to edoxaban:* Discontinue LMWH and start edoxaban at the time of the next scheduled administration of LMWH.
- *Converting from unfractionated heparin to edoxaban:* Discontinue the infusion and start edoxaban 4 hours later.

Switching from edoxaban to another anticoagulant:

- *Converting from edoxaban to warfarin:* Oral option: For patients taking edoxaban 60 mg, reduce the dose to 30 mg and begin warfarin concomitantly. For patients receiving edoxaban 30 mg, reduce the dose to 15 mg and begin warfarin concomitantly. Measure INR at least weekly and just prior to the daily dose of edoxaban to minimize the influence of edoxaban on INR measurements. Once a stable INR >= 2 is achieved, discontinue edoxaban and continue warfarin.

Parenteral option: Discontinue edoxaban and administer a parenteral anticoagulant and warfarin at the time of the next scheduled edoxaban dose. Once a stable INR >= 2 is achieved, discontinue the parenteral anticoagulant and continue warfarin.

- *Converting from edoxaban to a non-vitamin-K-dependent oral anticoagulant:* Discontinue edoxaban and start the other oral anticoagulant at the time of the next dose of edoxaban.
- *Converting from edoxaban to a parenteral anticoagulant:* Discontinue edoxaban and start the parenteral anticoagulant at the time of the next dose of edoxaban.[58685]

For stroke prophylaxis and systemic embolism prophylaxis in patients with nonvalvular atrial fibrillation (NVAF): NOTE: Reduce dose to 30 mg once daily in patients with CrCL 15 to 50 mL/min. Edoxaban should not be used in patients with NVAF with CrCl > 95 ml/min because of increased risk of ischemic stroke compared to warfarin.[58685]

- *Oral dosage:* Adults: 60 mg PO once daily.[58685]

For the treatment of deep venous thrombosis (DVT) or pulmonary embolism:

Oral dosage: – Adults > 60 kg: 60 mg PO once daily following 5 to 10 days of initial therapy with a parenteral anticoagulant.[58685]

Adults <= 60 kg: 30 mg PO once daily following 5 to 10 days of initial therapy with a parenteral anticoagulant.[58685]

Maximum Dosage Limits

Adults: – 60 mg/day PO.
Geriatric: – 60 mg/day PO.
Adolescents: – Safety and efficacy have not been established.
Children: – Safety and efficacy have not been established.
Infants: – Safety and efficacy have not been established.
Neonates: – Safety and efficacy have not been established.

Patients with Hepatic Impairment Dosing

- *Mild impairment (Child-Pugh Class A):* No dose adjustment needed.
- *Moderate impairment (Child-Pugh Class B):* Use not recommended.
- *Severe impairment (Child-Pugh Class C):* Use not recommended.

Patients with Renal Impairment Dosing

- CrCl 15—50 ml/min: 30 mg PO once daily.
- CrCl < 15 ml/min: Use not recommended.
- Off-label indication

For more information visit:
http://www.FDA.gov/newsevents/newsroom/pressannouncements/ucm429523.htm

New Interaction for Old Medication

(Reference pharmacists' letter Jan. 2015)

Caution should be exhibited when prescribing Bactrim® or Bactrim® DS® (trimethoprim/sulfamethoxazole) especially when a patient is receiving a medication causing increased potassium or a potassium supplement.

Trimethoprim can cause less urinary potassium excretion, resulting in increased potassium levels. The risk is even greater if the patient is receiving potassium sparing diuretics or other medications that promote less excretion of potassium.

Research is showing that this is serious and hyperkalemia caused by this interaction can increase hospitalization in seniors. 3 in 1000 seniors will have sudden death within 14 days of taking an ace inhibitor or angiotensin receptor blocker along with this antibiotic.

Things to be aware of when prescribing:

- Age > 65, renal problems, heart failure or diabetes,
- 1 or more meds that raise potassium or a potassium supplement.

For more information visit
http://www.accessdata.fda.gov/drugsatfda_docs/label/2012/017377s071lbl.pdf

IV Admixtures

Starting in March the following blank IV label is to be used when mixing any medication into an IV bag for administration. Completely fill out the label and place it on the IV bag prior to hanging. Blank labels will be located in the back of the Infusion Policy and Procedure Manual, in the reference section. The Infusion Policy and Procedure Manual is located on the IV cait.

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IV Admixtures

Base Solution _____

Drug Additive _____ Amount _____

_____

_____

Added By _____
Date _____ Time _____ AM/PM
Expires _____ (1 hr after preparation)
Flow Rate _____

Resident Name _____
Date of Birth _____

This label must be affixed to all infusion fluids containing additional medication

Important Reminder About Vaccine Storage

Proper vaccine storage and handling is a critical component in the immunization process. Vaccines must be stored and handled correctly in order to protect individuals and communities from vaccine-preventable diseases.

Vaccines exposed to temperatures outside the recommended ranges can have reduced potency and protection. Storage and handling errors can cost thousands of dollars in wasted vaccine and revaccination.

McLaren facilities should practice proper vaccine storage and handling protocols including:

- Regular monitoring of refrigerator temperatures, which should be maintained at 35° F to 46° F (2°C to 8°C)
- Freezers must be a separate component from the refrigerator (Note: The Centers for Disease Control and Prevention (CDC) strongly recommends stand-alone freezers and refrigerators without freezers, as studies have demonstrated they maintain the required temperatures better than combination units.)
- Storage units should be in good working order and able to maintain the required temperature range throughout the year
- Dormitory-style storage units should not be used to store vaccine under any circumstances (a "dormitory-style refrigerator" is defined as a small combination freezer/refrigerator unit that is outfitted with one exterior door and an evaporator plate (cooling coil), which is usually located inside an icemaker compartment (freezer) within the refrigerator)

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Mission statement:
McLaren Health Care, through its subsidiaries, will be the best value in health care as defined by outcomes and cost.

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