## MEDICATION MATTERS

## **Pharmacy Newsletter**

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State University of New York Downstate Medical Center – University Hospital of Brooklyn Department of Pharmacy

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# News & Noteworthy: Taking a Stance on Medical Marijuana

by Valerie Marcellus, PharmD

Medical cannabis is derived from the following plant-based species, Cannabis sativa or Cannabis indica. Patients who have been diagnosed with one or more of the following severe debilitating or life-threatening conditions are potentially eligible to receive medical marijuana (cancer, HIV/AIDS, ALS, MS, Parkinson's disease, epilepsy, neuropathy, chronic pain, opioid use disorder, Huntington's disease, post-traumatic stress disorder, or IBD). Among various peer-reviewed studies which examined the benefits of medical marijuana, sixty-eight percent of studies deemed medical marijuana to be beneficial, eight percent found no benefit, and twenty-three percent were inconclusive. Future studies are underway, but are limited due to FDA's classification of medical marijuana.

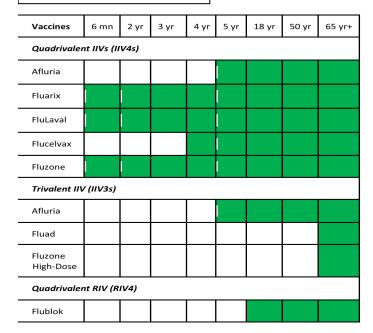
According to the FDA, medical marijuana is classified as Schedule I; however, it has been legalized in 28 states, including New York. As states legalize medical marijuana, one can assume an increase in consumption; thus, the need to address the concern of inpatient use. NY State only allows certain formulations of medical marijuana, liquid (for mucosal use), vaporization or capsules (for oral use). Law does not prohibit the use of vaporization in a separate enclosed room in the hospital; however, one must consider the safety and health of others in the facility. Each hospital is faced with the decision to prohibit or permit the use of medical marijuana by certified patients. Ideally, a committee should be tasked with formulating a policy for medical marijuana, which address several questions such as; how is the product identified/verified? Which patients are permitted to receive medical marijuana? Who should administer the substance? Where will it be stored? Will it be documented in the medical record?

- "Frequently Asked Questions Medical Marijuana Program". Health.Ny.Gov, 2018, https://www.health.ny.gov/regulations/medical\_marijuana/faq.htm. Accessed 12 Sept 2018.
- "An Introduction To The Biochemistry & Pharmacology Of Medical Cannabis". Doh.Dc.Gov, https://doh.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/Medical%20Cannabis%20An%20Introduction%2 0to%20the%20Biochemistry%20and%20Pharmacology.pdf. Accessed 11 Sept 2018.

## **Pharmacy Focus:**

### Recommendations for Influenza 2018-2019 Season

by Erika Chan, PharmD and Valerie Marcellus, PharmD



As the new influenza season starts, the Centers for Disease Control and Prevention (CDC) released the following new recommendations for preventing transmission of the influenza virus for the current season.

Influenza virus has been known to cause serious, life-threatening complications and death. Thus, the importance of appropriate prevention with the use of influenza vaccine. The CDC recommends vaccination early fall, latest end of October. This year's influenza vaccine has been adjusted to match potentially circulating viruses; The influenza A (H3N2) and B/Victoria components have been updated. The CDC updated the recommendation for the live attenuated influenza vaccine (LAIV), last year LAIV was not recommended due to lack of efficacy; this flu season, LAIV is considered a recommended option for patients who meet the inclusion criteria. LAIV is approved for non-pregnant patients and individuals between 7 and 49 years old. All LAIV, cell-grown flu vaccine, and recombinant vaccines will be quadrivalent this season. Intradermal vaccines will not be administered for the 2018-2019 season.

The table below includes influenza vaccines that are recommended for the 2018-2019 season.

Abbreviations: IIV=inactivated influenza vaccine; RIV=recombinant influenza vaccine; mos=months, vrs=vears.

### Reference:

"2018-2019 Flu Season" cdc.gov https://www.cdc.gov/flu/about/season/current.htm

## Clinical Pearls: HyperRAB®, the Newly Approved HRIG for Rabies

by Erika Chan. PharmD

Rabies is a serious viral disease that is transmitted from animals to humans by bites. Wild animals such as bats, raccoons, dogs, cats, skunks, foxes, and other mammals are the common source of infection. Human rabies is rare in the United States, with only one to three cases reported annually. However, it is fatal without any cure once infected and symptoms are present. Signs and symptoms of rabies may first present as general weakness, fever, or headache, and progress to anxiety, confusion, agitation, cerebral agitation, insomnia, delirium, hallucinations, and other abnormal behaviors.

**Pre-exposure:** People who are at high risk of exposure to rabies should receive three doses of rabies vaccines: day 0, day 7, and day 21 or 28.

**Post-exposure:** Anyone who was bitten by an animal must first clean the wound and seek medical attention immediately. Those who have been vaccinated should receive two doses of rabies vaccine: day 0 and day 3. Those who have never been vaccinated should receive four doses of vaccines: day 0, day 3, day 7, and day 14. In the latter case, CDC recommends the administration of human rabies immune globulin (HRIG), in addition to the vaccine, because the vaccine alone would not provide sufficient protection in those who have never been vaccinated prior to the exposure. HRIG will provide immediate antibodies until the body can respond to the vaccine by actively producing its own antibodies. A full dose of HRIG should be thoroughly infiltrated in the area around and into the wounds, and the remainder is injected intramuscularly. The recommended dose of HRIG is 20 IU/kg-body-weight, including children, for all the currently available products.

HyperRAB® S/D has been one of the commonly used HRIG products. HyperRAB® (300 IU/mL) is the newly approved formulation of HyperRAB® S/D (150 IU/mL). The dosing for HyperRAB® is 20 IU/kg-body-weight, same as for HyperRAB® S/D, but this change in the potency allows the reduction in the HRIG volume injected by half. The benefit is the easier administration to the wounds in delicate areas such as extremities or face.

FDA approval of HyperRAB® is the first improvement in human rabies immune globulin (HRIG) treatment in over 40 years, since the introduction of HyperRAB® in 1974. The Pharmacy & Therapeutics Committee at University Hospital of Brooklyn recently approved the protocol for HyperRAB® and the products are available to be dispensed from the Pharmacy Department upon request.

### References:

- 1. "Rabies Vaccine." https://www.cdc.gov/vaccines/hcp/vis/vis-statements/rabies.pdf
- 2. "New Formulation of HyperRAB Approved for Rabies Post-Exposure Prophylaxis" empr.com. <a href="https://www.empr.com/news/rabies-immune-globulin-hyperrab-high-potency-antibodies-wound-site/article/742243/">https://www.empr.com/news/rabies-immune-globulin-hyperrab-high-potency-antibodies-wound-site/article/742243/</a>
- 3. "Grifols HyperRAB® (rabies immune globulin [human]) 300 IU/mL Receives FDA Approval to Treat Patients Exposed to Rabies Virus Infection" prnewswire.com. <a href="https://www.prnewswire.com/news-releases/grifols-hyperrab-rabies-immune-globulin-human-300-iuml-receives-fda-approval-to-treat-patients-exposed-to-rabies-virus-infection-300594182.html">https://www.prnewswire.com/news-releases/grifols-hyperrab-rabies-immune-globulin-human-300-iuml-receives-fda-approval-to-treat-patients-exposed-to-rabies-virus-infection-300594182.html</a>
- 4. Package insert [HyperRAB®]

## **Crossword Puzzle: Immunization**

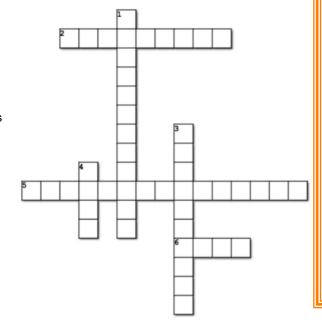
by Jennifer Tsan, Pharmacy Student

### **Across**

- 2. This type of lung infection causes cough, shortness of breath, chills, fatigue and fever
- If you had chickenpox you're at risk of another disease caused by this virus
- 6. A combination vaccine that protects against tetanus, diphtheria, pertussis and is boosted every 10 years

### Down

- 1. This type of vaccine has 4 different strains of the flu virus and approved for use in different age groups
- 3. This virus is a contagious liver disease that can either be acute or chronic and is curable
- **4.** These type of vaccines are contraindicated in pregnancy



### P & T Committee

Updates from July, August, and September meetings:

- Pediatric ASP First-Dose
- Adult C. diff Management Guidelines
- HIV Antiretroviral Clinician's Pocket Guide (Antimicrobial Stewardship Program website)