

**October 2015**

**Asthma and the Flu - Influenza Vaccine Options for the 2015-2016  
Flu Season**

**Timothy R. Hudd, BS, Pharm.D., RPh, AE-C**

The "Flu" is a contagious respiratory illness that affects an estimated 5-20% of U.S. residents annually.<sup>1</sup> Flu season typically begins as early as October and can last as late as May with peak activity occurring between December and February. There are three types of influenza viruses: Types A, B and C. Human influenza A and B viruses cause seasonal flu epidemics and less commonly pandemics, while Human influenza type C infections are typically self-limited and often associated with mild respiratory illness.<sup>2</sup> The virus is spread through respiratory droplets and may be passed from an infected individual as early as one day before symptoms develop and up to 5 to 7 days after symptoms present.<sup>3</sup> Symptoms may include high fever, muscle aches, sore throat, chills, fatigue, runny or stuffy nose, and headache. Despite being a respiratory illness, some patients may also experience adverse gastrointestinal symptoms such as nausea, vomiting, and diarrhea.<sup>3</sup> Although cases vary in severity, an estimated 225,000 hospitalizations and nearly 50,000 deaths occur annually as a result of influenza and its complications.<sup>4</sup>

Influenza can exacerbate underlying medical conditions or lead to pneumonia in certain individuals. Adults  $\geq 65$  years, children  $\leq 5$  years of age, pregnant women, and individuals with chronic medical conditions such as those with asthma or chronic lung disease have the highest risk of influenza-related complications and death. Accordingly, the Advisory Committee on Immunization Practices (ACIP) recommends annual influenza vaccination for all persons aged  $\geq 6$  months who do not have contraindications.<sup>5</sup> In order to meet the demand for those who are eligible for the Flu vaccine, a projected 179 million doses of the 2015-2016 influenza vaccine will be produced by several private manufacturers for the U.S. market.<sup>6</sup>

Influenza vaccines are designed to provide protection against three to four different influenza viruses. The trivalent inactivated influenza vaccine (IIV3) is comprised of two Influenza A viruses; (H1N1) and (H3N2), and one influenza B virus. The quadrivalent inactivated influenza vaccine (IIV4) has the same components of the IIV3, but with one additional influenza B virus. The composition of this year's influenza vaccine is different from the 2014-2015 vaccine, as it contains one new influenza A H3N2 virus and one new influenza B virus.<sup>5</sup> The ACIP offers no preference to any particular product over another. The overall effectiveness of the vaccine is largely dependent upon patient specific characteristics (i.e. age, immune function, etc.), as well as, how well the antigens in the vaccine match viruses in circulation. The efficacy of the vaccine is determined by observational studies and ongoing surveillance efforts by the CDC.<sup>7</sup> Clinicians, patients, and caregivers may access weekly surveillance reports and interactive maps on the CDC website.

Flu vaccines are available in a number of different routes of administration, including intramuscular, intradermal, jet injector and nasal spray vaccine. It is recommended that patients get vaccinated as soon as the flu vaccine becomes available, if possible by October, to ensure adequate protection for the entire duration of flu season.<sup>1</sup> The following table summarizes products approved for this flu season.

### Approved Options for the 2015-2016 Season

Trade Name	Manufacturer	Approved Age	Route
<b>Inactivated Influenza Vaccine, Quadrivalent (IIV4) - Standard Dose</b>			
Fluarix Quadrivalent	GlaxoSmithKline	≥3 years	IM
FluLaval Quadrivalent	ID Biomedical Corp. of Quebec (distributed by GlaxoSmithKline)	≥3 years	IM
Fluzone Quadrivalent	Sanofi Pasteur	*Varies by product	IM
Fluzone Intradermal Quadrivalent	Sanofi Pasteur	18 years - 64 years	ID*
<b>Inactivated Influenza Vaccine, Trivalent (IIV3) - Standard Dose</b>			
Afluria	bioCSL	≥9 years (via needle) 18 years - 64 years	IM
Fluvirin	Novartis Vaccines and Diagnostics	via jet injector	IM
Fluzone	Sanofi Pasteur	≥4 years	IM

			≥6 months	
<b>Inactivated Influenza Vaccine, Cell-Culture-Based (ccIIV3) - Standard Dose</b>				
Flucelvax	Novartis Vaccines and Diagnostics		≥18 years	IM
<b>Inactivated Influenza Vaccine, Trivalent (IIV3) - High Dose</b>				
Fluzone High-Dose	Sanofi Pasteur		≥65 years	IM
<b>Recombinant Influenza Vaccine, Trivalent (RIV3) - Standard Dose</b>				
Flublok	Protein Sciences		≥18 years	IM
<b>Live Attenuated Influenza Vaccine, Quadrivalent (LAIV4)</b>				
FluMist Quadrivalent	MedImmune		2 years - 49 years	Nasal

\*The preferred injection site is over the deltoid muscle.

*Table adapted from Ref #5 page 820*

Patients with asthma may inquire about which influenza vaccine is right for them. The National Asthma Education and Prevention Program (NAEPP) recommends patients with asthma receive the

inactivated influenza vaccination annually.<sup>8</sup> Although the vaccine has not been consistently shown to reduce the frequency or severity of asthma exacerbations during flu season. The Advisory Committee on Immunization Practices continues to recommend that patients with asthma and other chronic health conditions receive an annual flu shot due to their increased risk for flu related complications.<sup>5</sup>

According to the ACIP, the LAIV4 is contraindicated for use in children 2-4 years of age who have asthma or who have had an episode of wheezing within the past year. In addition, the product labeling for Flumist warns that persons of any age with asthma might be at increased risk for wheezing after administration of LAIV.<sup>9</sup> At this time, there is insufficient evidence to determine whether the use of LAIV is safe in patients with any level of asthma severity and should therefore be avoided.<sup>5</sup>

Although seasonal flu vaccines are designed to protect against infection and illness caused by the flu viruses. It is important to remember the flu vaccine will not protect against other common viruses such as rhinovirus (one cause of the "common cold") and respiratory syncytial virus (RSV). Hygiene etiquette such as coughing into one's sleeve, washing hands often with soap and water, and/or using an alcohol-based hand rub can help reduce transmission of influenza and other illnesses during this winter season.

## **References**

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**American College of Chest Physicians (ACCP)  
Annual Conference  
October 24-25, 2015  
Montréal, Canada**

**SAVE THE DATE!!!!** The American College of Chest Physicians (CHEST) Annual Conference will be held on October 24-28, 2015 in Montréal, Canada.

**Program**

Join CHEST in Montréal for the 2015 conference, your connection to educational opportunities will help optimize the clinical decisions you make. The cutting-edge sessions and community of innovative problem-solvers in attendance will inspire and energize you. Program highlights include:

**Saturday, October 24**

Postgraduate Courses

Enhance your learning by beginning CHEST 2015 with a postgraduate course focused on specific topics to offer an intensive learning experience.

**Sunday, October 25 - Wednesday, October 28**

Interdisciplinary Programs

Bring your entire care team to attend programs that will address clinical issues across the disciplines. Session speakers will represent each role and present from their respective perspectives, so your group can collectively experience practical, relevant updates. Sessions will combine lecture-based, case-based, and hands-on learning opportunities.

### **CHEST Simulation Center**

Practice your clinical skills in a hands-on learning environment. Work with expert faculty to sharpen your skills and apply your knowledge using real equipment and simulators.

### **General Sessions**

Choose from hundreds of sessions, offered in a variety of instructional formats, including hands-on simulation, interactive case-based presentations, small-group discussions, and a rich variety of self-study modules and educational games.

### **Exhibit Hall**

Don't miss the showcase of diagnostic and treatment solutions for optimal patient care.

### **Sessions Will Be Recorded**

CHEST 2015 will be recorded, so you can listen again or hear sessions you missed. Attendees will have electronic access to recorded sessions at no additional cost.

To register for this conference, please visit: <http://chestmeeting.chestnet.org/meeting-information/registration>

**Camp Soaring Eagle  
Cornville, AZ  
October 23-25, 2015**

FREE Respiratory Camp for children ages 6-15 years who have a history of asthma will have an opportunity to attend a FREE weekend camp in Cornville, AZ at Camp Soaring Eagle.

This camp has 24-hour medical supervision & campers get to meet 20 other children with this chronic medical condition.

The campers receive asthma education in a fun learning environment & have the opportunity to fish, horseback ride, learn archery, and more!

Free transportation is provided to & from camp from Cardon Children's Medical Center in Mesa, AZ.

If you are a RN or LPN or RT - we also need medical staff volunteers! Food & transportation is provided to staff.

More information about this camp: [www.campsoaringeagle.org](http://www.campsoaringeagle.org)

To apply for camp, please contact:

Juan Morales

Executive Director of Camp Operations

Office: 928-284-219

Cell: 702-218-7034

[jmorales@campsoaringeagle.org](mailto:jmorales@campsoaringeagle.org)

Camp Soaring Eagle

**Allergy & Asthma Network (AAN)**  
**and**  
**America College of Allergy, Asthma and Immunology (ACAAI)**  
**Invite You to Attend the**  
**2015 Asthma Coalition Summit**  
**Friday, November 6, 2015**  
**San Antonio, TX**

Dear Friends,

Allergy & Asthma Network and the American College of Allergy, Asthma and Immunology (ACAAI) are excited to invite you to the 2015 Asthma Coalition Summit. This one day event will bring together asthma coalitions, state asthma programs, federal agencies, stakeholders and partners in allergy & asthma care. The summit is held in conjunction with the ACAAI Annual Scientific Meeting.

**Goal:** Bring communities together to share the latest clinical breakthroughs, innovations, lessons learned and best practices in allergy and asthma care and to brainstorm key learnings to advance the implementation of Guidelines-based asthma care throughout the U.S.

**When:** Friday, November 6, 2015.

**Where:** Marriot Riverwalk, San Antonio, Texas.

**Speakers:**

- James Sublett, MD, President of the College of Allergy, Asthma and Immunology (ACAAI).
- Karen Meyerson, Asthma Network of West Michigan, MI.
- Elena Kaltsas, Centers for Chronic Disease, University of Michigan, MI.
- Ben Francisco, University of Missouri School of Medicine, MO.

- Michael Shoemaker, AnMed Health Women's and Children's Hospital, Anderson, SC.
- Susan Steppe, Le Bonheur Children Hospital, TN.
- Jay Portnoy, MD, Children's Mercy Hospital, KS, ACAAI Fellow.
- Michael McKnight, Green and Healthy Homes Initiative (GHHI), WDC.
- Andrea Jensen, Utah County Health Department, UT.

**Facilitator:** Tracy Enger, U.S. Environmental Protection Agency (EPA).

**Register today:** [http://aanma.site-ym.com/events/event\\_details.asp?id=679414&group=](http://aanma.site-ym.com/events/event_details.asp?id=679414&group=)

Looking forward to see you in San Antonio!

All my best,

*Tonya Winders, MBA*

President and CEO

Allergy & Asthma Network

## **Fall has arrived along with colder, dry air which can be an asthma attack trigger!**

### **5 tips to help you breathe easier with asthma:**

1. Keep taking your long-term control (daily maintenance) medication as prescribed by your provider this Fall & Winter to prevent asthma symptoms or flares.
2. If cold air is a trigger for you, take your quick-relief inhaler (e.g., Albuterol) 10-15 minutes prior to going outside.
3. Keep your quick-relief inhaler and spacer with you at all times, wherever you go.
4. Wrap up well and wear a scarf over your nose & mouth - the scarf will help warm up the air before it enters into your lungs - preventing cough from cold air inhalation.
5. Take extra care when exercising outdoors in cold weather; always warm up 10 - 15 minutes prior to exercising (e.g., before running) and take your quick-relief inhaler, as directed by

your provider, prior to exercise. You may want to choose to work out indoors on especially cold or windy days.

## **Asthma in the News**

### **New Spanish-language Version of AAFA's Wee Breathers™ Program**

The Asthma and Allergy Foundation of America's (AAFA) Wee Breathers™ program is now available in Spanish. This free, flexible and interactive program consists of seven one-hour lessons, an instructor's guide and two checklists for identifying asthma triggers in the home and in child care centers.

[www.aafa.org/WeeBreathers](http://www.aafa.org/WeeBreathers)

### **Grandmother's Smoking Habits Increase Asthma Risk in Grandchildren**

Researchers found that if grandmothers smoked while pregnant, there was an increased risk of asthma in grandchildren, even if their mothers had not smoked during pregnancy. The risk of asthma was increased by 10 to 22%. <http://bit.ly/1OG9POo>

### **Missing Microbes Provide Clues About Asthma Risk**

In a new study, researchers found that babies who had low levels of four gut microbes in the first 100 days of life were more likely to develop asthma by the time they were 3-years-old.

<http://n.pr/1MJ3D56>

### **Health Care Costs Double for Patients with Asthma-COPD Overlap Syndrome**

Researchers found that asthma costs, which accounted for 29% of total health care costs during the study period, were nearly double among patients with asthma-COPD overlap syndrome (\$6,319 vs. \$3,356), attributed to an increase in inpatient hospitalizations (34% vs. 14.6%) or ED visits (29.6% vs. 19.9%).

<http://bit.ly/1Lk4SUN>

### **Blanket Approach to Asthma Treatment Not Ideal, Researchers Find**

Research into the effects of dust mite and cockroach allergens has found that different types of asthma respond differently to a new experimental treatment.

<http://bit.ly/1NlenKb>

### **Exercising 30 Minutes a Day Helps Relieve Asthma Symptoms**

A recent study found that participants who exercised 30 minutes a day on a regular basis were nearly 2.5 times more likely to have good control of their symptoms, compared with those who did no exercise.

<http://bit.ly/1Mguq66>

### **Leukotriene-Receptor Antagonists Improve Asthma Control**

Orally administered leukotriene-receptor antagonists (LRTAs), alone or with inhaled corticosteroids (ICSs), significantly improved asthma control and reduced exacerbations, according to a systematic review published online September 22 in the Annals of Internal Medicine.

<http://wb.md/1L39DIu>

**Kids with Asthma Fare Worse When They Live with Smokers**

In a meta-analysis, researchers found that kids with asthma and exposed to second-hand smoke were 66% more likely to seek emergency care and 85% more likely to be hospitalized than their peers who didn't spend time around smokers. <http://bit.ly/1P1aXeG>

**Allergy Immunotherapy May Prevent Asthma in Patients with Allergic Rhinitis**

Researchers found that allergy immunotherapy effectively prevents the progression of allergic rhinitis to asthma in a real-life setting, and this effect is strongest in products containing native allergens.

<http://bit.ly/1iVTIPX>

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**NAECB Newsletter Editors:**

**Kimberly Byrne, RN, BSN, CPN, AE-C**  
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4001 E. Baseline Suite 206, Gilbert AZ 85234  
Telephone No: 877.408.0072 | Email Address: [info@naecb.org](mailto:info@naecb.org)