A BOOSTER to Improve Your Influenza Immunization Rates

October 2016
Objectives

• Identify the seasonal influenza vaccine’s effectiveness in developing immunity

• Improve accuracy in assessing patients who need influenza vaccines

• Increase rates of vaccination against influenza among patients and staff
"We all have less than a month before they are let out."
The CDC guidelines state that seasonal influenza is from **October 1 – March 31 each year**.

The optimal time to begin influenza vaccinations is October (*CDC*) Vaccinate any patients who are seen in the ED, or admitted to Observation status or Inpatient anytime between October – March 31.
Scope of the Problem: Who are at Serious Risk of Complications from Influenza?

- Children younger than 5, but especially children younger than 2 years old
- Pregnant women
- American Indians and Alaskan Natives
- Elders 65 years and older. More than 90% of influenza deaths occur in elder patients. Influenza & pneumonia combine to represent the fifth leading cause of death in elders.
- Individuals who are immunocompromised

Effectiveness

• Vaccination of both patients and staff is beneficial in reducing hospitalizations and mortality rates.

• The CDC Advisory Committee on Immunization Practices (ACIP) notes that although influenza vaccination in the elders may not prevent illness, it is 50% - 60% effective in preventing influenza related hospitalizations or pneumonia and 80% effective in preventing death.
Recommendations

• Increase influenza immunization rates among patients aged 6 months and older

• CDC advisory committees now recommend that all health care workers (HCW) be vaccinated against seasonal influenza annually

• Increase the number of your staff who receive the flu shot
Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, 2015-2016 Season
Myths & Misconceptions

• ...The flu vaccine causes the flu
• ...I got the vaccine and it made me sick
• ...If I get the flu, I’ll just stay home
• ...If you vaccinate the patient, that is enough
• ...The preservative in the flu shot is dangerous
• ...The flu shot isn’t effective anyway
Barrier: Lack of Knowledge

When patients, family members, or facility staff have misconceptions about influenza and influenza vaccination efficacy or safety, they are less likely to pursue flu vaccination for themselves or encourage it for others.
Common Reasons “Why Not?”

• Fear of injections

• Fear of vaccine-induced illness

• A perception that the vaccine is ineffective

• Inconvenience – have to go out of way or take off work to get vaccinated

• Employer does not cover the cost of vaccine

• Facility does not make HCW immunization a priority
Barrier: Cost

The cost of an immunization program can be a possible barrier. Although facilities may be concerned about the cost of an employee immunization program, the costs of influenza disease in terms of hospitalizations, lost productivity, facility disruption, the use of antiviral medications, and even deaths, are much higher.
Barrier: Lack of Communication

Promotional barriers include not having organizational goals for an influenza immunization program and not having materials in the facility to promote the vaccination program. These may be among the easiest barriers to overcome.
Barrier: Organization

• Lack of policies & procedures for patient and staff influenza immunization programs
• Lack of a system (e.g., registry) for tracking the immunization status of patients and staff.
• Lack of reminder systems.
• Lack of a consistent documentation system of influenza vaccine administration.
Strategies and Resources for Overcoming Barriers

• Use of a standard form to record all vaccine related information for each patient.
• Implement standing orders.
• Use of incentive and recognition programs.
• Acquisition of vaccine for staff from public health programs where available and during shortages.
• Develop a culture in which influenza immunization is seen as an integral part of ensuring patient safety and delivering high-quality care.
Sneeze – can send 100,000 germs into the air at about 100 mph at a distance of up to 32 feet!

2016-2017 Influenza Vaccine

• **Trivalent** *(traditional for healthy individuals <65)*

  A/ California / 7 / 2009 (H1N1) – Like Virus
  A/ Hong Kong / 4801 / 2014 (H3N2) – Like Virus
  B/ Brisbane / 60 / 2008 – Like Virus – Victoria Lineage

• **Quadrivalent** *(recommended for age 65 +, immunocompromised individuals)*

  Contains 2-A influenza variants & 2-B influenza variants

  B/ Phuket / 3073 / 2013 – Like Virus – Yamagata Lineage
## Indications and Contraindications for Influenza Vaccination

<table>
<thead>
<tr>
<th>High risk for complications from influenza:</th>
<th>Valid medical reasons for withholding vaccination:</th>
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<tbody>
<tr>
<td>• Age 5 years and under</td>
<td>• Presence of fever</td>
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<tr>
<td>• Age &gt; 65 years</td>
<td>• Moderate, severe acute illness</td>
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<td>• Pregnant women</td>
<td>• End state of a terminal illness</td>
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<td>• Residence in a long-term care facility</td>
<td>• Egg allergy, Severe</td>
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<td>• Presence of Chronic disease (e.g., heart</td>
<td>• Development of neurologic symptoms (e.g., GBS)</td>
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<td>disease, kidney disease, lung disease,</td>
<td>within 7 weeks of prior dose of influenza</td>
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<td>diabetes, asthma, and anemia)</td>
<td>• Severe allergic reaction to the influenza vaccine</td>
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<td>• Muscle or nerve disorders (e.g., seizure</td>
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<td>disorders severe cerebral palsy) that</td>
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<td>can result in difficulty breathing or</td>
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<td>swallowing</td>
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<td>• Weakened immune system</td>
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<tr>
<td>• Ability to spread influenza to those at</td>
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<td>high risk</td>
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**Influenza (Flu) Vaccine (Inactivated or Recombinant): What you need to know**

### 1. Why get vaccinated?

Influenza ("flu") is a contagious disease that spreads around the United States every year, usually between October and May.

Flu is caused by influenza viruses, and it spreads mainly by coughing, sneezing, and close contact. Anyone can get flu. Flu strikes suddenly and can last several days. Symptoms vary by age, but can include:
- Fever/chills
- Sore throat
- Muscle aches
- Fatigue
- Cough
- Headache
- Nausea or stuffy nose

Flu can also lead to pneumonia and blood infections, and cause diabetes and kidney diseases in children. If you have a medical condition, such as heart or lung disease, flu can make it worse.

Flu is more dangerous for some people. Infants and young children, people 65 years of age and older, pregnant women, and people with certain health conditions or a weakened immune system are at greatest risk.

Each year thousands of people in the United States die from flu, and many more are hospitalized.

Flu vaccine can:
- Keep you from getting flu.
- Make you less severe if you do get it, and
- Keep you from spreading flu to your family and other people.

### 2. Inactivated and recombinant flu vaccines

A new flu vaccine is recommended every flu season. Children 6 months through 8 years of age may need two doses during the same flu season. Everyone else needs only one dose each flu season.

*Inactivated* flu vaccines contain a very small amount of killed influenza virus; they’re not harmful, but flu vaccines that do not contain thimerosal are available.

There are live flu viruses in flu shots. They cannot cause the flu.

There are many flu viruses, and they are always changing. Each year a new flu vaccine is made to protect against three or four viruses that are likely to cause disease in the upcoming flu season. But even when the vaccine doesn’t exactly match these viruses, it may still provide some protection.

Flu vaccine cannot prevent:
- Flu that is caused by a virus not covered by the vaccine, or
- Diseases that look like flu but are not.

It takes about 2 weeks for protection to develop after vaccination, and protection lasts through the flu season.

### 3. Some people should not get this vaccine

Tell the person who is giving you the vaccine:
- If you have any severe, life-threatening allergies.
- If you have ever had a life-threatening allergic reaction after a dose of flu vaccine, or have a severe allergy to any part of this vaccine, you may be advised not to get vaccinated. Most, but not all, types of flu vaccines contain a small amount of egg protein.
- If you have ever had Guillain-Barré Syndrome (also called GBS).
- Some people with a history of GBBS should not get this vaccine. This should be discussed with your doctor.
- If you are not feeling well.
- It is usually okay to get flu vaccine when you have a mild illness, but you might be asked to come back when you feel better.

### 4. Risks of a vaccine reaction

With any medical treatment, there is a chance of reaction. These are usually mild and go away on their own, but serious reactions are possible. Most people who get a flu shot do not have any problems with the flu vaccine.

Many problems following a flu shot include:
- An allergic rash or swelling where the shot was given. If this happens, call your doctor.
- A rash or redness that gets worse over the next 2 days.
- A very high fever (100°F or higher) on the day the shot was given.
- A high fever and other signs of a serious infection.
- A severe allergic reaction, such as difficulty breathing, swelling of the face, lips, mouth, or tongue, or hives. If you have any of these, seek immediate medical help, call 9-1-1, or go to the nearest hospital or clinic.

### 5. What if there is a serious reaction?

What should you do?
- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or unusual behavior.

Signs of a severe allergic reaction may include:
- Difficulty breathing, swelling of the face, lips, mouth, or tongue, or hives. These should start to appear 1-2 hours after the vaccination.
- A very high fever (100°F or higher) on the day the shot was given.
- A rash or redness that gets worse over the next 2 days.
- An allergic rash or swelling where the shot was given. If this happens, call your doctor.
- A high fever and other signs of a serious infection.
- A severe allergic reaction, such as difficulty breathing, swelling of the face, lips, mouth, or tongue, or hives. If you have any of these, seek immediate medical help, call 9-1-1, or go to the nearest hospital or clinic.

### 6. The National Vaccine Injury Compensation Program

This National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by a vaccine. The program allows for claims to be made in a civil court in cases of injury that were caused by a vaccine. The program is funded by a tax on vaccines. The VICP is administered by the Health Resources and Services Administration (HRSA). The VICP is available at the website of the National Vaccine Information Center (NVIC) at

### 7. How can I learn more?

- Call your local health department.
- Contact the Centers for Disease Control and Prevention (CDC).

CDC Flu Vaccine Information Statement www.cdc.gov/flu
Recommended Adult Immunizations for Health Care Workers

• Hepatitis B (series of three vaccinations)
• Influenza – Offer annually to ALL staff
• MMR – 2 doses – born in 1957 or later (Consider 1 dose for HCWs born before 1957)
• TDaP *tetanus-diphtheria-acellular-pertussis*
• (1 dose TDaP for ALL staff <65 years who have direct patient contact)
Health Care Worker Immunization Programs

Influenza transmission among patients, families, other visitors, and HCWs is a particular problem for two reasons:

- The close proximity of HCWs caring for Patients

- The immunological changes that occur in frail or debilitated individuals, particularly to elders, which may prevent them from fully responding to flu vaccine with protective levels of antibodies.
Health Care Worker Immunization Programs

• Unvaccinated HCWs can both introduce influenza into a facility and spread the infection once it is present.

• Studies have shown that influenza outbreaks in facilities are associated with low vaccination rates among HCWs.

• Influenza vaccination of HCWs protects vulnerable patients, improves patient safety and significantly decreases patient morbidity and mortality.

• Vaccination rates of 50% - 60% among HCWs were associated with 40% reductions in mortality among residents.
Understanding Translates into Acceptance

When you get the flu shot:

You also protect YOUR LOVED ONES at home and at work

You protect your paycheck too!
"These are the new temporary offices for the employees who didn’t get flu shots.”
You Call the Shots

Modules
- Understanding the Basics: General Recommendations on Immunization
- Diphtheria, Tetanus, and Pertussis
- Polio
- *Haemophilus influenzae* type b (Hib)
- Influenza
- Hepatitis A

Description
You Call the Shots is an interactive, web-based immunization training course. It consists of a series of modules that discuss vaccine-preventable diseases and explain the latest recommendations for vaccine use. Each module provides learning opportunities, self-test practice questions, reference and resource materials, and an extensive glossary.

The course is available free of charge on the CDC Vaccines and Immunizations website at: [http://www.cdc.gov/vaccines/cd/youcalltheshots.htm](http://www.cdc.gov/vaccines/cd/youcalltheshots.htm).

Audience
The course is intended for nurses, nursing students, medical assistants, pharmacists, and other health professionals who provide immunizations.

Questions or comments about the course may be e-mailed to nipinfo@cdc.gov.

Immunization: You Call the Shots was developed through a Cooperative Agreement between the Centers for Disease Control and Prevention (CDC) and the Association for Prevention Teaching and Research (APTR).
Outbreak: Declaring the End

The CDC advises that an influenza outbreak should be considered to be over when:

- On the basis of daily monitoring of acute febrile respiratory illness (AFRI), the facility has recorded no new cases for 1 week.

Medical Directors should be familiar with the Oklahoma health department’s guidance on this issue.
**Summary**

- Influenza is a major preventable cause of morbidity and mortality among patients, especially those aged 5 years & younger, those 65 years & older, and immunocompromised individuals.

- Regulations require facilities to offer influenza vaccination to all patients for whom vaccination is not medically contraindicated and encourage increasing immunization rates among facility staff.

- Where permitted by state law, federal regulations authorize the use of standing orders to facilitate immunization programs.
Thank you for participating!

Questions?