

Influenza Update for Pediatricians

2014-2015 Influenza Season, Summary Guidance

Background

Influenza (“the flu”) is more dangerous than the common cold for children. Each year, many children get sick with seasonal influenza; some of those illnesses result in hospitalization and death. Some children are at greater risk of experiencing severe outcomes from influenza infection. This includes: children younger than 5 and children of any age with certain chronic health conditions, including asthma, diabetes, a weakened immune system for any reason, and neurological or neurodevelopmental disorders.

Current Situation

While certain key flu indicators have begun to decline, influenza activity remains elevated and widespread in much of the country. As of February 7, 2015, the flu season had been ongoing for 12 consecutive weeks. Mostly drifted H3N2 flu viruses continue to predominate this season, hitting older adults and young children harder. As of February 7, the hospitalization rate for children 0-4 years is 40.4 per 100,000 population. Children 0-4 years have the second-highest hospitalization rate so far this season after people 65 years and older. Like older adults, children often are more severely impacted during H3N2-predominant seasons. A total of 80 influenza-associated pediatric deaths have been reported for the 2014-2015 season at this time.

An average flu season lasts about 13 weeks, ranging from 1 week to 19 weeks over the past 13 seasons. Because this season started relatively early, it could last longer than 13 weeks and it's possible the country may see a second wave of influenza activity caused by a different flu virus.

While influenza vaccination is recommended as long as influenza viruses are circulating, vaccine effectiveness this season is reduced. CDC is reminding clinicians about the importance of antiviral medications as an adjunct to vaccination for early treatment of influenza illness in those who are severely ill and those who are at high risk of serious flu complications. This document summarizes CDC's influenza vaccine and antiviral recommendations.

CDC Recommendations

Influenza Vaccination

Preliminary vaccine effectiveness results of about 23% across all ages indicate that the vaccine is working less well this season, likely because of substantial antigenic and genetic drift among circulating H3N2 viruses. Even though vaccine effectiveness for H3N2 is reduced this season, CDC continues to recommend flu vaccination because it may still provide some protection, including reducing more severe flu outcomes like hospitalization and death. Also, flu vaccines protect against three or four different viruses and it's possible that other viruses will circulate later in the season. Some children 6 months through 8 years of age require two doses of influenza vaccine. Children in this age group who are getting vaccinated for the first time, as well as some who have been vaccinated previously, will need two doses.

As long as flu viruses are circulating in the community, health care professionals should continue to vaccinate patients who have not yet received influenza vaccine this season. Providers who have exhausted their supplies of influenza vaccine may be able to purchase additional vaccine or otherwise should encourage parents or other caretakers of unvaccinated children to seek influenza vaccine at other [locations](#). The [HealthMap Vaccine Finder](#) can be a useful tool for helping patients to find vaccine clinics in the area.

Antiviral Treatment

In the context of widespread circulation of H3N2 and reduced vaccine effectiveness, prompt antiviral treatment of severely ill and high risk patients becomes even more important as a second line of defense in reducing flu complications and death.

In both outpatient and hospital settings, empiric therapy is recommended for children younger than 2 years (although all children younger than 5 years are considered at higher risk for complications from influenza, the highest risk is for those younger than 2 years) with suspected or confirmed influenza, even if disease is not currently severe. Providers should encourage their patients to seek treatment immediately after illness onset, and should prescribe antiviral medication as appropriate. There are three FDA-approved influenza antiviral drugs recommended by CDC this season. The brand names for these are Tamiflu® (generic name oseltamivir), Relenza® (generic name zanamivir), and Rapivab® (generic name peramivir). Peramivir was approved in December 2014. It is given intravenously (by IV).

Antiviral treatment should be started as early as possible, preferably within 48 hours after illness onset. Among hospitalized patients, treatment should be initiated on admission; several studies suggest that antiviral treatment reduces mortality and illness severity among hospitalized adults, even when initiated ≥ 48 hours after illness onset. The decision to initiate antiviral treatment should be made regardless of vaccination status and should not wait for laboratory confirmation of influenza; especially the decision should not be dependent on insensitive assays, such as rapid influenza diagnostic tests, because of frequent false negatives. More information on antivirals is available at: <http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm> and <http://www.cdc.gov/flu/pdf/professionals/antivirals/antiviral-dosage-duration.pdf>

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