# Influenza Update for Pediatricians

## 2012-2013 Influenza Season, Impact on Children, 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**

The 2012-2013 influenza season began early and most of the country is experiencing high or widespread influenza activity at this time. However, no unusual disease patterns among children have been detected to date and CDC's recommendations for pediatricians for the prevention and treatment of influenza among children remain unchanged. This document contains a summary of pediatric hospitalization and death data to date this season as well as a summary of CDC's influenza antiviral recommendations. Information about intermittent shortages of Tamiflu pediatric suspension also is provided.

## Summary of Pediatric Hospitalization and Death Data This Season To Date

**Hospitalizations:** As of January 5, 2013 the current influenza-associated hospitalization rate for children 0-4 years old this season was 22.4 per 100,000; while the hospitalization rate for children 5-17 was 4.8 per 100,000. These numbers are high when compared to the same time last season (which was mild), but well below the cumulative rates seen in children during the 2009 pandemic and within what is expected for a moderate to moderately severe season. The most commonly reported underlying medical conditions in hospitalized children were asthma, neurologic disorders, and immune suppression.

**Pediatric Deaths:** Twenty influenza-associated pediatric deaths had been reported to CDC as of January 5. It's likely that more deaths will be reported since influenza activity will probably continue in the United States for several more weeks. During 2003-04 and 2007-08 – two seasons with comparable patterns in influenza-like illness – reported pediatric deaths were 153 and 88 respectively for the entire season. Available data on reported pediatric deaths this season show patterns similar to previous years. About 55% of children have had underlying health conditions; most of the children have been younger than 12 and about 80% had not been vaccinated. Preliminary data for 2012-2013 is consistent with this.

#### **CDC Recommendations**

#### Influenza Vaccination

CDC continues to recommend influenza vaccination for children who have not been vaccinated at this time and vaccination of high risk children is especially important. Providers should continue vaccinating patients at this time. 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. Persons seeking vaccination might need to call more than one provider to locate vaccine at this time. A recently published MMWR "Early Estimates of Seasonal Influenza Vaccine Effectiveness — United States, January 2013" found estimated overall vaccine effectiveness (VE) of 62% for preventing laboratory-confirmed influenza virus infection associated with medically attended ARI among vaccinated persons this season. Interim age specific estimates will be available in mid-February. The preliminary findings published on January 11 underscore the substantial public health benefit of influenza

vaccination, but also highlight the fact that some vaccinated persons – including children – will get influenza this season.

#### **Antiviral Treatment**

Providers are also reminded of CDC's recommendations for the use of influenza antiviral medications. Antiviral treatment can reduce the duration of illness and complications associated with influenza.

Early antiviral treatment is recommended for persons with suspected influenza with severe or progressive illness (e.g., hospitalized persons) and those at high risk for complications from influenza, no matter how severe the illness. Antiviral treatment should be started as early as possible, preferably within 48 hours after illness onset. Among hospitalized patients, however, 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 and should not be dependent on insensitive assays, such as rapid influenza diagnostic tests. The Food and Drug Administration recently posted information about intermittent shortages of one of the influenza antiviral drugs recommended for treatment of influenza in children this season. Currently there may be intermittent shortages of Oseltamivir Phosphate (Tamiflu) for Oral Suspension (6mg/mL 6o mL), due to increased demand for the drug. This is the pediatric suspension (liquid). The manufacturer has instructions for pharmacists on how to compound an oral suspension from Tamiflu 75 mg (adult) capsule. These instructions provide for an alternative oral suspension when commercially manufactured oral suspension formulation is not readily available. There also are pediatric doses of Tamiflu capsules that can be mixed with a thick sweetened liquid and swallowed that way. Providers should keep this in mind when writing prescriptions for pediatric patients and advise parents that they may need to call several pharmacies to locate suspension or pediatric capsules, or they may need to identify a pharmacy that can compound in order to fill their child's prescription.

CDC is actively monitoring this situation and will provide updates as needed.

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