Latest recommendations for the 2017-2018 flu season

This season’s vaccine has a new H1N1 component and any vaccine, except the live attenuated virus formulation, is suitable for pregnant women.

The Centers for Disease Control and Prevention (CDC) recently reported details of the 2016-2017 influenza season in Morbidity and Mortality Weekly Report and at the June meeting of the Advisory Committee on Immunization Practices. The CDC monitors influenza activity using several systems, and last flu season was shown to be moderately severe, starting in December in the Western United States, moving east, and peaking in February.

During the peak, 5.1% of outpatient visits were attributed to influenza-like illnesses, and 8.2% of reported deaths were due to pneumonia and influenza. For the whole influenza season, there were more than 18,000 confirmed influenza-related hospitalizations, with 60% of these occurring among those ≥65 years.1 Confirmed influenza-associated pediatric deaths totaled 98.1

The predominant influenza strain last year was type A (H3N2), accounting for about 76% of positive tests in public health laboratories (FIGURE).1 This was followed by influenza B (all lineages) at 22%, and influenza A (H1N1), accounting for only 2%. However, in early April, the predominant strain changed from A (H3N2) to influenza B. Importantly, all viruses tested last year were sensitive to oseltamivir, zanamivir, and peramivir. No antiviral resistance was detected to these neuraminidase inhibitors.

Good news and bad news on vaccine effectiveness. The good news: Circulating viruses were a close match to those contained in the vaccine. The bad news: Vaccine effectiveness at preventing illness was estimated to be just 34% against A (H3N2) and 56% against influenza B viruses.1 There has been no analysis of the relative effectiveness of different vaccines and vaccine types.

The past 6 influenza seasons have revealed a pattern of lower vaccine effectiveness against A (H3N2) compared with effectiveness against A (H1N1) and influenza B viruses. While vaccine effectiveness is not optimal, routine universal use still prevents a great deal of mortality and morbidity. It’s estimated that in 2012-2013, vaccine effectiveness (comparable to that in 2016-2017) prevented 5.6 million illnesses, 2.7 million medical visits, 61,500 hospitalizations, and 1800 deaths.1

More good news: Vaccine safety studies are reassuring

The CDC monitors influenza vaccine safety by using several sources, including the Vaccine Adverse Event Reporting System and the Vaccine Safety Datalink.2 Studies were conducted using the Datalink network to assess incidences of anaphylaxis, Bell’s palsy, encephalitis, Guillain-Barré syndrome, seizures, and transverse myelitis. No increases in any of these conditions were found to be related to the influenza vaccine; nor were any new safety concerns detected.

Changes for the 2017-2018 influenza season

The composition of influenza vaccine products for the 2017-2018 season will differ slightly
from last year’s formulation in the H1N1 component. Viral antigens to be included in the trivalent products are A/Michigan (H1N1), A/Hong Kong (H3N2), and B/Brisbane. Quadrivalent products will add B/Phuket to the other 3 antigens. A wide array of influenza vaccine products is available. Each one is described on the CDC Web site.

Two minor changes in the recommendations were made at the June ACIP meeting. Afluria is approved by the FDA for use in children starting at age 5 years. ACIP had recommended that its use be reserved for children 9 years and older because previous influenza seasons had raised concerns about increased rates of febrile seizures in children younger than age 9. These concerns have been resolved, however, and the ACIP recommendations are now in concert with those of the FDA for this product.

Influenza immunization with an inactivated influenza vaccine product has been recommended for all pregnant women. Safety data are increasingly available for other product options as well, and ACIP now recommends vaccination in pregnancy with any age-appropriate product except for live attenuated influenza vaccine.

**Antivirals: Give as needed, even before lab confirmation**

The CDC recommends antiviral medication for individuals with confirmed or suspected influenza who have severe, complicated, or progressive illness, who require hospitalization, or who...
are at high risk of complications from influenza
(TABLE). Start treatment without waiting for labor-
atory confirmation for those with suspected
influenza who are seriously ill. Outcomes are
best when antivirals are started within 48 hours
of illness onset, but they can be started even af-
after this “window” has passed.

Once antiviral treatment has begun, make
sure the full 5-day course is completed regard-
less of culture or rapid-test results. Use only
neuraminidase inhibitors, as there is wide-
spread resistance to adamantanes among in-
fluenza A viruses.

**Influenza can occur year round**
Rates of influenza infection are low in the
summer, but cases do occur. Be especially
alert if patients with influenza-like illness have
been exposed to swine or poultry; they may
have contracted a novel influenza A virus.

Report such cases to the state or local health
department so that staff can facilitate labora-
tory testing of viral subtypes. Follow the same
protocol for patients with influenza symptoms
who have traveled to areas where avian influ-
enza viruses have been detected. The CDC is
interested in detecting novel influenza viruses,
which can start a pandemic.

### Prepare for the 2017-2018 influenza season

Family physicians can help prevent influenza
and its associated morbidity and mortal-
ity in several ways. Offer immunization to
all patients, and immunize all health care
personnel in your offices and clinics. Treat
with antivirals those for whom they are rec-
ommended. Prepare office triage policies
that prevent patients with flu symptoms from
mixing with other patients, ensure that clinic
infection control practices are enforced, and
advise ill patients to avoid exposing others.

Finally, stay current on influenza epidemi-
ology and changes in recommendations for
treatment and vaccination.

#### References

   in the United States during the 2016-2017 season and composi-
   tion of the 2017-2018 influenza vaccine. MMWR Morb Mortal
2. Shimabukuro T. End-of-season update: 2016-2017 influenza vac-
   cine safety monitoring. Presented at: meeting of the Advisory
   Committee on Immunization Practices; June 21, 2017; Atlanta,
   Ga. Available at: https://www.cdc.gov/vaccines/acip/meetings/
   August 1, 2017.
3. CDC. Frequently asked flu questions 2017-2018 influenza sea-
   son. Available at: https://www.cdc.gov/flu/about/season/flu-
4. CDC. Influenza vaccines — United States, 2016-17 influenza sea-
   son. Available at: https://www.cdc.gov/flu/protection/vaccine/vac-
5. Grohskopf L. Influenza WG considerations and proposed recom-
   mendations. Presented at: meeting of the Advisory Committee
   on Immunization Practices; June 21, 2017; Atlanta, Ga. Available
   at: https://www.cdc.gov/vaccines/acip/meetings/downloads/
6. CDC. Use of antivirals. Available at: https://www.cdc.gov/
   flu/professionals/antivirals/antiviral-use-influenza.htm#Box.
7. CDC. Prevention strategies for seasonal influenza in healthcare
   settings. Available at: https://www.cdc.gov/flu/professionals/