'Smart Use of Antivirals'

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are available, according to updated recommendations. The agency updated its guidance on the use of antivirals based on clinical data and experiences from the spring and summer, said Dr. Anne Schuchat of the CDC.

Physicians should warn high-risk patients to actively seek treatment for flulike symptoms.

"If you have an underlying condition such as diabetes, pregnancy, heart disease, or lung disease, it's important to be seen promptly if you get a fever" so that antiviral treatment can be initiated within the first 48 hours of illness. "This can make a big difference in hastening your recovery, the difference between becoming seriously ill or recovering well," Dr. Frieden said.

Another red flag would be a recurrence of fever after a seeming recovery, he added. Ten of 36 children who died of H1N1 infection also had invasive bacterial infections, probably picked up while they were recovering at home (MMWR 2009;58:941-7). "An important message for doctors is that if someone has the flu, they get better, and then they get worse again with a high fever, that is a clue that maybe they should be treated with antibiotics."

The updated guidance recommends treatment with antivirals for hospitalized patients with confirmed, probable, or suspected pandemic flu, and for individuals who are at increased risk for flu-related complications.

The CDC recommends either oseltamivir (Tamiflu) or zanamivir (Relenza) for antiviral treatment of the pandemic flu.

Most people won't know whether their flulike symptoms are seasonal flu or pandemic flu, so the guidance encourages health care providers to use their judgment when treating high-risk patients.

Dr. Schuchat suggested that clinicians consider writing antiviral prescriptions in advance for patients in high-risk groups. This would allow an individual who develops flulike symptoms to call his or her physician, discuss the symptoms, and determine whether to fill the prescription. Antivirals are most effective when begun within 48 hours of symptom onset, Dr. Schuchat said.

While prompt treatment is important for very ill and high-risk patients, Dr. Schuchat emphasized that the CDC promotes "smart use of antivirals" to minimize the development of resistant strains, and added that most children and adults who become ill with the H1N1 virus will not need treatment with antivirals. "Our goal is to strike a balance in how [antivirals] are used to benefit people," she said.

At press time, 13 cases of pandemic H1N1 flu that were resistant to oseltamivir had been reported, according to data from a media briefing by Tamiflu manufacturer Roche. ■

Heidi Splete contributed to this report.

Recommended Antiviral Dosages for Pandemic Influenza A(H1N1)

Agent, Group	5-Day Treatment
Oseltamivir	
Children 12 months and older, ≤15 kg	60 mg/day divided into two doses
Children 12 months and older, 16-23 kg	90 mg/day divided into two doses
Children 12 months and older, 24-40 kg	120 mg/day divided into two doses
Children 12 months and older, >40 kg	150 mg/day divided into two doses
Adults	One 75-mg capsule twice daily
Zanamivir	
Children aged ≥7 years	Two 5-mg inhalations (10-mg total) twice daily
Adults	Two 5-mg inhalations (10-mg total) twice daily

Source: Centers for Disease Control and Prevention

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Pandemic H1N1 Flu Vaccine Distribution Plans Outlined

BY DOUG BRUNK

When a vaccine for the pandemic influenza A(H1N1) virus is cleared for use, expect the distribution process to resemble the Vaccines for Children program.

The vaccine will be allocated to states based on their populations, Dr. Jay C. Butler said during a teleconference of the National Vaccine Advisory Committee (NVAC) last month. McKesson Specialty will receive vaccine from the five manufacturers and ship it to providers under the direction of state health departments.

"Providers may include physician's offices, hospitals, occupational health clinics, pharmacies, anyone the state designates as an appropriate recipient of vaccines to administer," said Dr. Butler, director of the H1N1 Vaccine Task Force at the Centers for Disease Control and Prevention, Atlanta.

To date, the federal government has purchased 195 million doses of the vaccine. All orders will be filled in increments of 100 doses. For federal employees, Dr. Butler noted, the CDC will play role of "state health department," receiving and submitting orders from federal agencies.

The overall process "was developed in collaboration with state and local health officials," he said. " Distribution of vaccine can be achieved without rebuilding infrastructure for in-state distribution, which has mostly been lost within the last couple of years."

The Countermeasure and Response Administration, a Web-based aggregate reporting by age group, will track the number of doses being given. "This system may underestimate the number of doses that are administered," Dr. Butler said. "There will be a certain amount of work involved in the data entry, and it's possible that vaccinators may not enter all the data."

As for coverage assessment, the National Immunization Survey can begin collecting data as early as the week of Oct. 10, and provide weekly coverage estimates, he said. The Behavioral Risk Factor Surveillance System "will provide a more complete picture of vaccine coverage by state and in specific risk groups."

Dr. Butler emphasized that the current distribution plan is a "dynamic situation. There are a number of things that we don't yet have a good handle on, including the proportion of vaccine that will be delivered in the private sector and the willingness of clinicians to provide H1N1 vaccine."

While some of the clinical trials of pandemic H1N1 vaccine have been underway since mid-July, Robin Robinson, Ph.D., said that no adverse events have been reported to date. "That is very encouraging," said Dr. Robinson, director of the Biomedical Advanced Research and Development Authority.

During the 2-hour meeting, NVAC members approved two recommendations that will be passed along to the assistant secretary for health for review. One advises that the Department of Health and Human Services "develop, and where possible test in advance, a strong and organized response to scientific and public concerns about vaccine safety that may emerge during the 2009 H1N1 vaccination campaign. The challenge will be to communicate effectively and to differentiate rapidly between adverse events that may be causally related to the vaccine and those which would be expected by chance alone."

Such a response, the recommendations continue, could involve "organizing drills or practice scenarios for how the government will respond to concerns about adverse events temporally related to H1N1 vaccination, including identifying data resources and strategies for communications messages." ■

Health Providers' Flu Vaccine Acceptance Low

BY MICHELE G. SULLIVAN

Fewer than half of health care workers were willing to accept prepandemic influenza vaccinations to either the H5N1 or the pandemic H1N1 viruses, despite a jump in the World Health Organization alert level, according to a survey study conducted in Hong Kong.

Even when the WHO alert level for H1N1 increased to 5—indicating confirmed human-human spread—only 48% of those surveyed said they intended to take the vaccine. The most common barriers to vaccination were worries about side effects and doubts about effectiveness, lead authors Josette Chor and Dr. Paul Chan wrote in BMJ online (BMJ 2009;doi:10.1136/bmj.b3391).

The findings are of great concern, since vaccination of health care workers provides several key benefits during a disease outbreak, wrote Ms. Chor and Dr. Chan of the Chinese University of Hong Kong, and their associates.

Ms. Chor and her coauthors conducted two surveys in 31 Hong Kong hospitals. The first survey, conducted from January to March, asked physicians, nurses, and other health professionals employed at the facilities if they would take a prepandemic H5N1 vaccine. At that time, the WHO alert level for H5N1 was 3, indicating sporadic disease in humans but no evidence of human-human transmission strong enough to generate a community outbreak.

The second survey was conducted in May, after the WHO influenza alert level for H1N1 had been raised to phase 5. This survey asked about the willingness to accept both of the vaccines.

A total of 2,255 health care workers responded to the surveys. Nurses accounted for 71% of the respondents and physicians for 19%.

Overall, only 28% of respondents to the first survey said they would accept an H5N1 vaccine. That percentage increased, though not significantly so, to 35% for the second survey.

More respondents (48%) said they would accept an H1N1 vaccine. Most of those who said they would accept H5N1 vaccination said they would also accept H1N1 vaccination (91%). But only 24% of those who would decline the H5N1 vaccine said they would accept the H1N1 vaccine.

The most common reasons for vaccine acceptance were a wish to be protected and the following of government advice. The most common reasons for declining vaccination were worry about side effects and doubts about vaccine efficacy.

The investigators declared that they had no conflicts. ■