U.S. Makes Progress in Preparing for Pandemic Influenza ...
But Drug Distribution and Effectiveness Are Debatable

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The avian flu scare of a few years ago has long since disappeared from the headlines in the U.S., but its legacy is still being felt in efforts at local, state, and federal levels to put the country on secure footing in case of a pandemic influenza epidemic. No one is complacent, especially since the deadly H5N1 strain of bird flu is apparently alive and well in the Far East. China closed off one village near Hong Kong in October after 10,000 ducks in the village died.

A question persists: How much progress have the Department of Homeland Security (DHS) and the Department of Health and Human Services (DHHS) made in implementing an emergency strategy and helping states, cities, and counties develop an emergency response capability? Not surprisingly, the answer is mixed, according to hearings held in the Senate Homeland Security and Governmental Affairs Committee in October.

Homeland Security issued a plan in March 2006, and the DHHS has been busy implementing its overwhelming share of the action items; at last count, 200 of them had been completed. Worried about federal planning, Congress created the position of Assistant Secretary for Preparedness and Response in the Pandemic and All-Hazards Preparedness Act in December 2006, now filled by Rear Admiral William Craig Vanderwagen, MD.

However, the federal lines of authority, with respect to a pandemic influenza emergency, are still unclear. Homeland Security is responsible for the National Response Plan (NRP), which is supposed to be used as guidance at the local level for response to all emergencies, whether it be a Hurricane Katrina, a nuclear accident, or an influenza outbreak. The department is revising and renaming the NRP, to be called the National Response Framework. The first draft of this plan, published this past spring, was heavily panned.

In October, Yvonne Madlock, a Tennessee public health official, stated:1

... we share the frustration of many local and state officials about their lack of representation in the revision process for the National Response Plan, which will govern response to pandemic influenza.

That lack of local input is evident in confusing federal guidelines. In the same presentation, she explained:1

For instance, recently released HHS/CDC guidance for state and local preparedness lists eight required critical tasks to prepare for isolation and quarantine and [D]HHS is working on performance metrics. DHS has published a Target Capabilities List for Isolation and Quarantine that includes over 60 critical tasks, with associated performance measures. The result is a mixed message to local planners.

Beyond these kinds of guidance conflicts, there are operational uncertainties as well, foremost among them whether localities will have enough of the right antiviral agents on hand if an emergency strikes and whether they will be able to get them quickly enough to people who need them.

Paul K. Halverson, Director and State Health Officer of the Arkansas Department of Health, said that even when a state purchases antiviral drugs and stockpiles them, it is still unknown whether they will work. Moreover, millions of dollars have been spent to purchase those drugs, but the drugs cannot be used in non-pandemic situations. If the drugs have not been utilized at the end of five years—at the end of their shelf life—they are useless.

“There is no alternative offered to us for rotation of this stockpile,” Mr. Halverson added.

The good news is that an adequate stockpile (adequate treatment for 25% of the U.S. population) of two neuraminidase inhibitors is nearly in place: oseltamivir phosphate (Tamiflu, Roche) and zanamivir (Relenza, GlaxoSmithKline). The federal stockpile provides 37.5 million treatment courses, and the government expects to purchase the remaining 12.5 million courses soon, after Congress forks over the money, to achieve the goal of 50 million—the 25%—by July 2008. The states have bought about half of their goal of 30 million courses of treatment, and the DHHS is subsidizing those purchases to the tune of $170 million.

Whether Tamiflu and Relenza will work remains to be seen. Of course, it is always possible that clinical resistance to those two drugs will develop—hence the efforts by the DHHS to develop a third drug, peramivir, which is also a neuraminidase inhibitor. Peramivir is in midstage clinical evaluation.

“We need new antiviral candidates, should the viruses become resistant to the currently available antivirals,” admits Dr. Vanderwagen.

Christopher Pope, Director of Homeland Security and Emergency Management in New Hampshire, offered the clearest picture of our nation’s preparedness for a pandemic influenza outbreak:2

Local governments, states, and the private sector have made great strides in their preparedness and response capabilities in public health crisis. However, we are still not at the acceptable level of readiness that our citizens expect and deserve. States and local governments continue to need funding and leadership from the federal government as we continue to build these capabilities.

REFERENCES