Here's how to determine which patients and employees in your practice should receive the influenza vaccine if a pandemic occurs.

## Preparing for an Influenza Pandemic:



# VACCINE PRIORITIZATION

Jonathan L. Temte, MD, PhD

Downloaded from the *Family Practice Management* Web site at www.aafp.org/fpm. Copyright © 2006 American Academy of Family Physicians. For the private, noncommercial use of one individual user of the Web site. All other rights reserved.

he potential for an influenza pandemic with enormous mortality and morbidity poses an increasing threat to our world of easy international travel, concentrated population centers and large numbers of people receiving poor health care. If the emerging avian influenza or another new virus creates a pandemic, severely limited supplies of vaccines and antiviral medications are likely.

On July 19, 2005, the National Vaccine Advisory Committee (NVAC) and the Advisory Committee on Immunization Practices (ACIP) unanimously approved a prioritization plan for this eventuality.<sup>1</sup> The priority groups identified in the plan reflect the known epidemiology of influenza viruses, morbidity and mortality data, and vaccine efficiency<sup>2,3</sup> (see "Priority groups for pandemic influenza vaccine" on page 34). The goal is to minimize hospitalizations and deaths, and to prevent the social disintegration that can result from such a catastrophe.

The recommendations of the ACIP and NVAC have been included in the U.S. Department of Health and Human Services Pandemic Influenza Plan, released in November 2005. While the prioritization guidelines are useful for planning purposes, keep in mind that, should a pandemic occur, they will likely require modification based on the actual epidemiology of the pandemic and on vaccine

### About the Author

Dr. Temte is an associate professor in the Department of Family Medicine at the University of Wisconsin in Madison. He also serves on the AAFP Commission on Science, and as an AAFP liaison to the Advisory Committee on Immunization Practices. He thanks Carolyn Bridges, MD, of the National Immunization Program at the Centers for Disease Control and Prevention for reviewing and providing comment on this article, and Alice Erickson of the University of Wisconsin Department of Family Medicine's Clinical Data Warehouse for technical assistance. Conflicts of interest: none reported.

## **MORE RESOURCES ONLINE**

Three additional influenza pandemic planning tools are available on the *FPM* Web site at http://www.aafp.org/fpm/20060100/ 32prep.html. Complete them in the order listed below.



A worksheet to ensure you're not forgetting any employees when estimating your clinic's need for pandemic influenza vaccine.



Suggested database search parameters to quickly identify patients in each of the priority tier groups.



Aform to estimate the total number of people affiliated with your clinic who might need the vaccine.

The guidance these tools provide is not absolute but can help you begin the process of estimating your need for vaccine.

and antiviral medication supplies.

Given the potential for significant problems with communicating and implementing vaccine prioritization during a pandemic, family physicians and clinic managers must prepare themselves in advance. Clinics will need to identify and eventually contact individuals – both patients and employees – who are likely to be in a high-priority group. This will allow for proper estimates of vaccine recipients in each tier.

## How the tiers break down

In the ACIP and NVAC's draft recommendations on pandemic influenza vaccine prioritization, health care workers with direct patient contact and those who provide critical support roles are included in the highest tier, Tier 1A.

Patients can be divided into risk groups based on age, presence of other high-risk medical conditions and household contacts with high-risk persons.<sup>2,3</sup> We recommend using your clinic's administrative databases to enumerate eligible individuals among your patient population.

Tier 1B, the highest tier of patients, includes people 65 years and older with at least one underlying high-risk health condition, those 6 months to 64 years of age with two or more underlying high-risk conditions, or those hospitalized in the past 12 months with pneumonia, influenza or another high-risk condition. ► The federal government's Pandemic Influenza Plan includes vaccine prioritization guidelines.

You can use the guidelines to plan who among your staff and patients would be high-priority vaccine recipients in a pandemic.

The priority tiers for patients are based on age, other highrisk conditions and household contacts with high-risk persons.

## PRIORITY GROUPS FOR PANDEMIC INFLUENZA VACCINE

Here's a tier-by-tier breakdown of the vaccine prioritization plan approved in July 2005 by the National Vaccine Advisory Committee and the Advisory Committee on Immunization Practices.

Tier	Group description
Tier 1A	<ul> <li>Health care workers</li> <li>Health care workers with direct patient contact and critical health care support stafe</li> <li>Vaccine and antiviral manufacturing personnel</li> </ul>
Tier 1B	<ul> <li>Highest-risk groups</li> <li>Patients 65 and older with at least one high-risk condition</li> <li>Patients 6 months to 64 years with at least two high-risk conditions</li> <li>Patients hospitalized in the past year because of pneumonia, influenza or another high-risk condition</li> </ul>
Tier 1C	<ul> <li>Household contacts and pregnancy</li> <li>Household contacts of children under 6 months</li> <li>Household contacts of severely immunocompromised individuals</li> <li>Pregnant women</li> </ul>
Tier 1D	<ul><li>Pandemic responders</li><li>Key government leaders and critical pandemic public health responders</li></ul>
Tier 2A	Other high-risk groups • Patients 65 and older with no high-risk conditions • Patients 6 months to 64 years with one high-risk condition • Children 6 months to 23 months
Tier 2B	<ul> <li>Critical infrastructure groups</li> <li>Other public health emergency responders, public safety workers, utility workers, critical transportation workers and telecommunications workers</li> </ul>
Tier 3	<ul> <li>Other key government health care decision-makers</li> <li>Individuals providing mortuary services</li> </ul>
	Healthy patients 2 to 64 years without any high-risk conditions

Tier 1C comprises pregnant women as well as household contacts and out-of-home caregivers of either severely immunocompromised individuals or children under the age of 6 months.

Patients in tier 2A include those 65 years and older with no high-risk conditions, children between 6 months and 23 months, and individuals ages 2 to 64 with one underlying high-risk condition.

## Take some time while you have it

Investing a relatively small amount of your time in estimating the number of vaccine recipients you could expect at each tier should pay off if an influenza pandemic occurs. If your clinic follows the online materials that accompany this article (see "More resources online" on page 33), you will stand ready with estimates of the amount of vaccine you'll need, a designated vaccine coordinator and contact information for your public health agency.

Hoping for the best is natural. Planning for the worst is the responsibility of every family physician. **FPM** 

## Send comments to **fpmedit@aafp.org**.

1. Healy B. Flu-vaccine rationing ahead? U.S. News & World Report. July 20, 2005. Available at: http://www.usnews.com/usnews/health/briefs/infectiousdiseases/ hb050720a.htm. Accessed Nov. 12, 2005.

2. Centers for Disease Control and Prevention. Tiered use of inactivated influenza vaccine in the event of a vaccine shortage. *Morb Mortal Wkly Rep.* 2005;54:749-750.

3. Centers for Disease Control and Prevention. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). *Morb Mortal Wkly Rep.* 2005;54:1-40.

Someone in your practice should be designated as its vaccine coordinator.

The online materials that accompany this article will guide you through estimating the amount of vaccine you'll need.

The priority guidelines will probably require modification based on the pandemic's actual epidemiology and vaccine supplies.