

HOUSTON-HARRIS COUNTY COMMITTEE ON PANDEMIC INFLUENZA MEDICAL STANDARDS OF CARE

**Recommended Priority Groups for
Antiviral Medication and Vaccine**

September 2007



Please submit questions or comments to panflucommittee@hcpbes.org

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Background

Current avian influenza activity in Asia and Europe underscores the importance of planning for pandemic influenza in the United States. In response, health officials at the federal, state and local levels have accelerated efforts to coordinate planning to prepare and respond to pandemic influenza. In Texas, decision-making regarding the response to a pandemic ultimately rests at the local level. During a pandemic, local health officials will work with community stakeholders and state partners to review epidemiological data, weigh potential health benefits with potential societal and economic burdens and apply the appropriate response measures.

Key among planning efforts is ensuring the appropriate allocation of scarce medical resources such as vaccines, antiviral medications, hospital beds and ventilators in the event of a pandemic. Issues surrounding prophylaxis and treatment are complex. For example:

- The time from a candidate vaccine strain to the production of the first vaccine dosage could be three to six months or more.
- Once vaccine is available, it may take several months to produce an adequate supply of vaccine for the entire U.S. population.
- Two doses of vaccine administered one month apart may be required to develop immunity to a novel virus.
- There is a limited supply of antiviral medications; efficacy of current antivirals against a pandemic influenza strain is unknown.
- A six to eight week course of antiviral medication is recommended for prophylaxis; a five day course is recommended for treatment.

The Houston/Harris County Committee on Pandemic Influenza Medical Standards of Care

Recognizing the need to ensure informed and coordinated guidance to the Houston/Harris County medical community in the event of a pandemic, in 2006 Harris County Public Health and Environmental Services and the Houston Department of Health and Human Services convened the *Houston/Harris County Committee on Pandemic Influenza Medical Standards of Care* (“Committee”), consisting of executive leadership from the following:

Harris County Public Health and Environmental Services (Co-Chair)
Houston Department of Health and Human Services (Co-Chair)
Baylor College of Medicine
Harris County Hospital District
Harris County Medical Society
Mental Health and Mental Retardation Authority of Harris County
The University of Texas Health Science Center at Houston

The Committee was charged with developing recommendations for the community standard for allocating scarce medical resources should pandemic influenza occur. While current federal and state guidelines, such as those regarding proposed priority groups for vaccines and antiviral medications, served to inform Committee deliberations, the Committee aimed to develop and issue consensus recommendations that are applicable, feasible and ethical within the context of the Houston/Harris County population distribution, the current and anticipated availability of local medical care and public health resources and the latest scientific evidence regarding issues such as efficacy of vaccine in preventing illness and efficacy of vaccination strategies for reducing community transmission rates.

The Committee was charged with developing recommendations on the following:

- Prioritization of a limited supply of antiviral medication
- Prioritization of a limited supply of vaccine
- Infection control procedures in healthcare settings
- Modified standards of clinical care
- Continuity of operations planning for healthcare settings

The Committee recognizes that it is likely that Houston/Harris County healthcare providers will be among the first to diagnose and treat pandemic influenza within the community. Further, many individuals will look to their providers for information and guidance about the pandemic situation and recommendations enacted by local health officials.

Therefore, it is crucial that providers remain informed about local plans and recommendations for responding to pandemic influenza, particularly plans for enacting community control measures such as vaccines, antivirals, isolation and quarantine. Armed with this information, providers can engage patients in following recommendations that can protect their families' health and well-being during a pandemic.

Committee Activities to Date

The Committee convened in September 2006, reviewing its charge, considering relevant background materials and discussing topics for future sessions. During the fall of 2006, the Committee held two information-gathering sessions. At the first, the Committee reviewed the epidemiology of past influenza pandemics, and at the second, the Committee considered an ethics framework for public health and pandemic preparedness.

Through summer 2007, the Committee developed an ethical framework to support deliberations, established guiding principles, considered federal and state guidance on pandemic influenza preparedness and reviewed current scientific evidence regarding pandemic control measures. With this knowledge the Committee developed recommendations for the prioritization and distribution of antivirals and vaccine. Beginning in fall 2007 the Committee will consider infection control procedures for healthcare settings, modified standards of clinical care and continuity of operations planning for healthcare settings.

Ethical Framework and Guiding Principles

The Committee adapted the following *ethical framework* to support Committee deliberations. This framework was adapted from an ethics framework developed for pandemic influenza preparedness purposes by Nancy E. Kass, ScD, in 2005.¹

- 1) What are the goals of the policies/interventions?
- 2) What are the proposed policies/interventions? How effective will they be in achieving stated goals?
- 3) What are the known or potential burdens of the policies/interventions?
- 4) Have we identified the least restrictive approaches to meeting the stated goals? What strategies should/have we used to minimize burdens?
- 5) Are the policies/interventions implemented fairly? Is there justice in the distribution to the policies/interventions' burdens and benefits?
- 6) Have we used fair procedures for developing these policies/interventions?

The Committee developed three *guiding principles*, or overarching goals for community outcomes should a pandemic occur. These principles, which steer Committee priority-setting and decision-making, are as follows:

- 1) Preserving critical infrastructure and societal functioning;
- 2) Reducing morbidity and mortality; and
- 3) Controlling the spread of disease.

Recommendations for Prioritizing Antivirals and Vaccine for Pandemic Influenza in Houston/Harris County

Priority Populations for Antivirals

Table A outlines recommended priority groups for the receipt of antiviral medication treatment during a pandemic influenza event in Houston/Harris County. The prioritization of antiviral treatment during a pandemic event is based on the assumption that the supply of antiviral medications will be limited. Note that these recommendations refer to antiviral *treatment* only – the Committee recommends that antiviral *prophylaxis* be utilized for localized outbreak control purposes only.

Priority Populations for Vaccination

Table B outlines recommended priority groups for the receipt of pandemic vaccine during a pandemic influenza event in Houston/Harris County. The prioritization of vaccination during a pandemic event is based on the assumption that the supply of vaccine will be limited.

¹ Kass, NE. An ethics framework for public health and avian influenza preparedness. *Yale J Biol Med* 2005, 78:239-254.

Table A: Recommended Priority Groups for Antiviral Medication Treatment for Pandemic Influenza, Houston/Harris County

Priority	Group
A1	Hospitalized patients with influenza
A2	Healthcare workers with direct patient contact, care or response functions: <ul style="list-style-type: none"> • Physicians, nurses and other healthcare providers in ambulatory and/or acute patient care settings • Emergency medical services personnel • Public health
A3	Critical community emergency providers, including: <ul style="list-style-type: none"> • Law enforcement, firefighters and mortuary services workers • Public health workers with planned pandemic response roles • Key government officials and essential personnel responsible for the continuity of emergency operations
A4	Essential infrastructure service workers, such as: <ul style="list-style-type: none"> • Public utility workers responsible for maintenance of critical functions, such as clean water, energy, solid waste and sewage system functioning • Workers responsible for transporting and distributing water, fuel and food • Telecommunications/IT for essential network operations and maintenance • Public information/emergency communications, including those utilizing multiple languages
B1	Highest-risk outpatients; outpatients more susceptible to severe illness or death from influenza: <ul style="list-style-type: none"> • Pregnant women • Immunosuppressed persons • Persons with lung or heart disease • Persons >64 years of age with one or more Advisory Committee on Immunization Practices (ACIP) - defined chronic disease² • Persons aged 6 months to 64 years with two or more ACIP-defined chronic diseases • Persons hospitalized in the prior year with pneumonia, influenza or other high-risk condition
B2	Increased-risk outpatients; outpatients potentially more susceptible to severe illness or death from influenza: <ul style="list-style-type: none"> • Persons ≥65 years of age with no ACIP-defined chronic disease or other high-risk condition • Persons aged 6 months to 64 years with one or more ACIP-defined chronic disease
C	Other outpatients/general population

² CDC. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices. MMWR 2007;53(RR06);1-54.

Table B: Recommended Priority Groups for Vaccination for Pandemic Influenza, Houston/Harris County

Priority		Group
A. Infrastructure	A1. Healthcare	Healthcare workers with direct patient contact, care or response functions: <ul style="list-style-type: none"> Physicians, nurses and other healthcare providers in ambulatory or acute care settings Emergency medical services Public health
	A2. Emergency	Critical community emergency providers, including: <ul style="list-style-type: none"> Law enforcement, firefighters and mortuary services workers Public health workers with planned pandemic response roles Key government officials and essential personnel responsible for the continuity of emergency operations
	A3. Services	Essential infrastructure service workers, such as: <ul style="list-style-type: none"> Public utility workers responsible for maintenance of critical functions, such as clean water, energy, solid waste and sewage system functioning Workers responsible for transporting and distributing water, fuel and food Telecommunications/IT for essential network operations and maintenance Public information/emergency communications, including those utilizing multiple languages
B. High Risk	B1. Risk for Transmission	Persons with a high risk of transmitting influenza: <ul style="list-style-type: none"> Children aged 6 months to 17 years Household contacts of: <ul style="list-style-type: none"> Pregnant women Infants <6 months of age Immunosuppressed persons Healthcare workers employed in nursing homes
	B2. Risk for Morbidity and Mortality	Persons more susceptible to severe illness or death from influenza: <ul style="list-style-type: none"> Pregnant women Immunosuppressed persons Persons with lung or heart disease Persons >64 years of age with one or more Advisory Committee on Immunization Practices (ACIP)-defined chronic disease³ Persons aged 18-64 years with two or more ACIP-defined chronic diseases Persons hospitalized in the prior year with pneumonia, influenza or other high-risk condition
C. Moderate Risk		Persons potentially more susceptible to severe illness or death from influenza: <ul style="list-style-type: none"> Persons ≥65 years of age with no ACIP-defined chronic disease or other high-risk condition Persons 18-64 years with one or more ACIP-defined chronic disease
D. Lower Risk		General population; persons not covered in the categories above

³ CDC. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices. MMWR 2007;53(RR06);1-54.