EAST CAROLINA UNIVERSITY

INFECTION CONTROL POLICY

Generic Pandemic Flu Preparedness Plan Date Originated: 1/18/06

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Approved by:

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Pandemic Flu Preparedness Plan

A. Introduction

Influenza is a common cause of respiratory illness, requiring health-care visits and hospitalization. During the influenza season, outbreaks of health-care associated influenza affect both patients and personnel in healthcare facilities. Type A influenza has the ability to infect a variety of animals, resulting in novel strains of influenza causing illness in humans. Three conditions must be met for a pandemic to start: 1) a new influenza virus subtype must emerge; 2) it must infect humans and causes serious illness; and 3) it must spread easily and sustainably among humans. The purpose of this plan is to prepare for the presence of novel influenza virus in this facility as well as its potential to result in a pandemic. This plan should be considered PERMISSIVE and not PRESCRIPTIVE. It is written to permit an adequate level of response to a severe pandemic. It does not require that all elements be implemented during a mild pandemic. Details of implementation will be based on guidance prompted by CDC and NC Division of Public Health specific to the novel virus and its characteristics. Prospective Health will receive their information and circulate it to the ECU Community via contacts with the ECU Pandemic Steering Group, ECU Physicians Clinic Directors, BSOM Nurse Leadership or others.

B. Preparedness planning

The ECU Pandemic Flu Preparedness Plan for Healthcare Facilities will follow procedures similar to those detailed in the ECU SARS Policy except for the differences listed below.

- 1. The stages of a pandemic are defined by the World Health Organization (Appendix A). Implementation of the ECU Pandemic Flu Plan is summarized in Appendix B, giving a phase-in schedule based on these stages. CDC has issued a Pandemic Severity Index outlining a gradated response to a pandemic (WHO Phase 6) based on the severity of the virus (infectivity and case fatality rate). Not every Pandemic requires implementation of every possible intervention.
- 2. Criteria for detection and managements of patients with possible novel influenza during interpandemic and pandemic alert periods. (Appendix C)
 - *a.* Clinical-Temperature > 38C or 100F plus one of the following: sore throat, cough, dyspnea or possibly diarrhea (depending on specific virus) *and:*
 - b. Epidemiologic risk: define per current situation (see event-specific guidance) to be issued by Prospective Health.
- 3. Criteria for detection and management of patients with novel influenza during the pandemic period. (Appendix D)
 - a. There will be a relatively high likelihood that any case of influenza like illness will be pandemic influenza when disease is

widespread in a community. Clinical criteria will be sufficient for classifying a patient as a suspected pandemic influenza case.

- 4. Clinical Evaluation of Patients with Influenza-like Illness during the Interpandemic and Pandemic Alert periods. (Appendix E)
 - a. Diagnostic testing for a novel influenza A should be initiated as follows:
 - Collect any of the following specimens: nasopharyngeal swab, wash, or aspirate, throat swab, and tracheal aspirate (if intubated), and place into viral transport media and refrigerate a 4C until specimens can be transported for testing, as directed by health department guidelines
 - Immediately contact the local health departments to report the suspected case and to arrange novel influenza testing by RT-PCR by the NC Public Health lab.

C. Infection Control Practices for Care of Patients with Pandemic Influenza

- 1. Infection control practices for pandemic influenza primarily involve the application of Respiratory Hygiene/Cough Etiquette (Appendix F and G), the patient may be asked to wear a surgical mask or to cover their cough. Standard and Droplet precautions .
- Recent outbreaks of influenza A (H5N1) have suggested a role for transmission of influenza is primarily by droplets. Surgical masks are adequate protection from droplets for most health care worker contacts. During procedures that may generate small particles of respiratory secretions (e.g., endotracheal intubation, bronchoscopy, nebulizer treatments, suctioning), healthcare workers should wear gloves, gown, face/eye protection, and a fit-tested N95 respirator or other appropriate particulate respirator.

D. Occupational Health Issues

- 3. All healthcare workers who are expected to have contact with a novel influenza virus or a patient infected with novel virus, or an environment that is likely to be contaminated with the virus should be vaccinated with the current seasonal influenza vaccine to minimize the possibility of reassortment. When a vaccine to the novel virus becomes available, health care personnel are usually a priority group for receipt. Vaccine will be provided following the recommendations of Public Health authorities.
- 4. ECU Infection Control will be notified when a suspect or confirmed case of novel influenza is seen in the ECU clinics. The ECU clinic manager or administrator will be asked to document all ECU personnel with contact with such patients.
- 5. Management of Exposures and Other Contacts with Novel Influenza virus.
 - a. Prospective Health may establish a healthcare personnel surveillance system to ensure that workers who may have had exposure to novel influenza virus are identified and offered

prophylaxis treatment and are monitored and those who develop illness receive appropriate care.

- b. Post exposure prophylaxis with oseltamivir (one 75mg tablet per day for at least 7-10 days) should begin as soon as possible after exposure, ideally within 2 days of exposure. It may be necessary for prophylaxis to continue for up to 6 weeks.
- c. Health care and other workers should be vigilant for the development of fever and/or sore throat, and cough for up to 10 days after exposure (or based on virus-specific recommendations). Any healthcare worker who develops symptoms or fever while at work should immediately put on a surgical mask, notify their supervisor and contact the office of Prospective Health.
- d. With the exception of visiting a healthcare provider, healthcare workers who become ill should be advised to stay home for up to 7 days after onset or until 24 hours after resolution of fever.

E. Communication

If a novel influenza virus is recognized regionally, communication about administrative controls, isolation procedures, use of PPE or other methods to prevent transmission will be provided to ECU clinics and staff by Infection Control as needed. This information will be updated based upon the current recommendations of federal, state or local health authorities.

F. Clinic Preparedness

- 1. Development of respiratory hygiene programs (provision of tissues, alcohol hand rub and masks) to patients with fever and cough is suggested for all clinics, especially if the clinic treats patients with respiratory infections.
- 2. Clinics will educate their providers and other staff about preventing the spread of influenza or other respiratory disease by use of isolation precautions, immunization, PPE, and other means.
- 3. ECU clinics will maintain adequate supplies of surgical masks for patients and staff as well as N-95 masks or other appropriate particulate respirator for high-risk procedures for use during patient care/activities during the fall/winter flu season.
- 4. Health care workers will be reminded to stay at home if illness develops until the nature of the symptoms is ascertained. Do Not Work While III.

G. Antiviral Use in Pandemic Influenza Treatment

Treatment strategies for optimizing the use of limited stocks of antiviral drugs will vary depending on the phase of the pandemic. (Appendix H)

- 1. Earliest stages in the United States:
 - a. Base treatment decisions on laboratory confirmed subtype identification of the pandemic strain by viral isolation, RT-PCR,

or other means recommended by the CDC/NC Public Health. (See event specific guidance issued by Prospective Health).

- b. In some situations, a positive rapid antigen test for influenza A may or may not be reliable. Refer to current guidelines regarding diagnosis of current situation In other situations, like 2009's H1N1, the rapid antigen test is not reliable for diagnosis.
- c. The test strategy will be individualized to the specific situation and based on Public Heath authorities' recommendations.
- 2. Increasing flu activity in the U.S.
 - a. Base treatment decisions on laboratory-confirmed identification of the pandemic subtype or detection of influenza A by rapid antigen test or epidemiologic and clinical characteristics.
- 3. Pandemic is widespread in U.S.:
 - a. Base treatment decisions on clinical features and epidemiologic risk factors/Public Health authorities' recommendations.

H. Antiviral use in Pandemic Influenza Prophylaxis

- 1. Target prophylaxis to priority groups (e.g., healthcare workers, public safety workers, essential service providers
- 2. Use post-exposure prophylaxis generally for 10 days to: Control small, well-defined disease clusters, such as outbreaks in nursing homes or other institutions, to delay or reduce transmission to other communities.

Protect individuals with a known recent exposure to a pandemic virus (unprotected).

- 3. When a vaccine becomes available, post-exposure prophylaxis may also be used to protect key personnel during the period between vaccination and the development of immunity.
- 4. See Appendix I for recommended daily dosage of antivirals for treatment and prophylaxis.

Appendix A

Stages of a Pandemic

The World Health Organization (WHO) has developed a <u>global influenza preparedness</u> <u>plan</u>, which defines the stages of a pandemic, outlines the role of WHO, and makes recommendations for national measures before and during a pandemic. The phases are:

Interpandemic period

Phase 1 : No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low. **Phase 2**: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

Pandemic alert period

Phase 3: Human infection(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

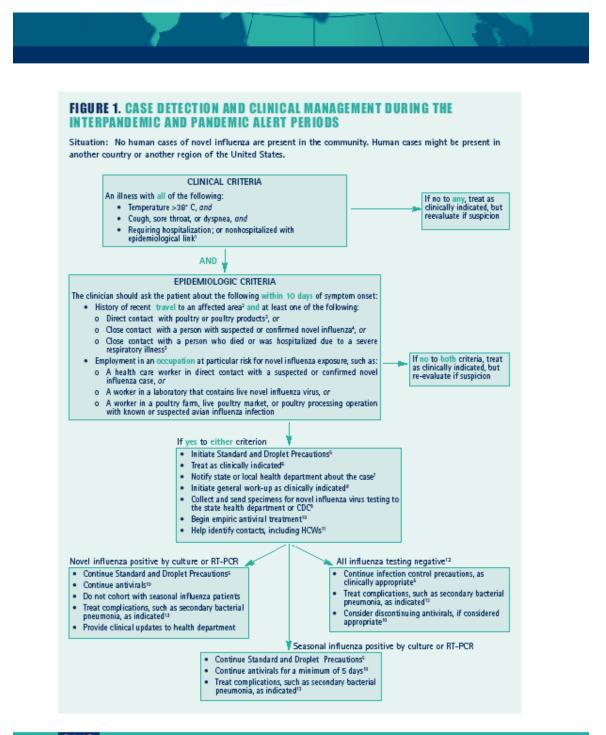
Pandemic period

Phase 6: Pandemic: increased and sustained transmission in general population. Notes: The distinction between **phases 1** and **2** is based on the risk of human infection or disease resulting from circulating strains in animals. The distinction is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and other scientific parameters. The distinction among **phases 3**, **4**, and **5** is based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may include rate of transmission, geographical location and spread, severity of illness, presence of genes from human strains (if derived from an animal strain), and other scientific parameters.

	demic Flu Preparedness Plan for Outpatient Facilities/Areas
Level of novel influenza activity	Suggested Actions
Pandemic Alert Period Phase 3 Presence of novel influenza activity worldwide but no known human-to-human transmission, or at most rare instances of spread to a close contact	 Patient screening and precautions Encourage patients with respiratory symptoms to report symptoms to the triage/intake staff. Encourage all patients with respiratory symptoms to perform hand hygiene and wear a surgical mask. Move these patients from the waiting area to a private exam room as soon as feasible. Instruct patients who cannot wear a surgical mask to cover the nose and mouth with tissues when coughing or sneezing. If there are likely to be delays in moving patients out of the waiting area, to divide the area so that patients with respiratory symptoms do not sit near others. Healthcare Worker Precautions Healthcare workers seeing patients with respiratory illness should wear surgical masks and practice frequent hand hygiene. Intake/triage staff should practice frequent hand hygiene and could be given the option wearing surgical masks.
Pandemic Alert Period Phase 5 Large cluster(s) but human- to-human spread still localized	 Patient screening and precautions May screen all patients and visitors with respiratory symptoms for known novel influenza epidemiologic links (e.g., travel to endemic areas or contact with known cases May instruct anyone with respiratory symptoms or fever and epidemiologic risks for Novel influenza to wear a surgical mask and perform hand hygiene. Place these patients immediately in a private room Healthcare worker Precautions Healthcare worker Precautions Same. Add: Healthcare workers who are in direct contact with patients who might have novel influenza virus should practice strict adherence to standard and droplet precautions – use surgical mask for protection. During aerosol-generating procedures, (i.e., endotracheal intubation, bronchoscopy, nebulizer treatment, suctioning), healthcare workers should wear gloves, gown, face/eye protection, and a fit tested N95 respirator of other appropriate particulate respirator Infrastructure issues Same. Add:
Pandemic period Increased and sustained transmission in general population	 Patient screening and precautions Same. Add: May screen all patients and visitors for fever and respiratory symptoms both when appointments are made and when they arrive at the clinic. Healthcare worker precautions Same Infrastructure issues Same.

Appendix B ECU Pandemic Flu Preparedness Plan for Outpatient Facilities/Areas

Appendix C

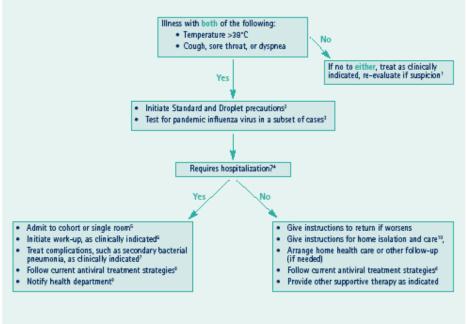


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Appendix D







Situation: Pandemic influenza viruses are circulating in the community.

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Appendix E

BOX 2. CLINICAL EVALUATION OF PATIENTS WITH INFLUENZA-LIKE ILLNESS DURING THE INTERPANDEMIC AND PANDEMIC ALERT PERIODS

- Patients who require hospitalization for an influenza-like illness for which a definitive alternative diagnosis is not
 immediately apparent* should be questioned about: 1) travel to an area affected by avian influenza A virus
 outbreaks in poultry, 2) direct contact with poultry, 3) close contact with persons with suspected or confirmed
 novel influenza, or 4) occupational exposure to novel influenza viruses (such as through agricultural, health care,
 or laboratory activities).
- Patients may be screened on admission for recent seasonal influenza vaccination and pneumococcal vaccination. Those without a history of immunization should receive these vaccines before discharge, if indicated.
- Patients meeting the epidemiologic criteria for possible infection with a novel strain of influenza should undergo
 a routine diagnostic work-up, guided by clinical indications. Appropriate personal protective equipment should be
 used when evaluating patients with suspected novel influenza, including during collection of specimens.^{**}
- Diagnostic testing for a novel influenza A virus should be initiated as follows:
 - Collect all of the following specimens: nasopharyngeal swab, nasal swab, wash, or aspirate, throat swab, and tracheal aspirate (if intubated), and place into viral transport media and refrigerate at 4° C until specimens can be transported for testing.
 - Immediately contact the local and state health departments to report the suspected case and to arrange novel
 influenza testing by RT-PCR.

RT-PCR testing is not available in hospital laboratories and must be performed at a qualified laboratory such as a state health department laboratory or the CDC Influenza Laboratory. Viral culture should be performed only at biosafety level 3 [BSL-3] with enhancements (see Supplement 2).

- Depending on the clinical presentation and the patient's underlying health status, other initial diagnostic testing might include:
 - · Pulse oximetry
 - Chest radiograph
 - · Complete blood count (CBC) with differential
- Blood cultures
- Sputum (in adults), tracheal aspirate, and pleural effusion aspirate (if an effusion is present) Gram stain and culture
- Antibiotic susceptibility testing (encouraged for all bacterial isolates)
- Multivalent immunofluorescent antibody testing or PCR of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children
- · In adults with radiographic evidence of pneumonia, Legionella and pneumococcal urinary antigen testing
- If clinicians have access to rapid and reliable testing (e.g., PCR) for M. pneumoniae and C. pneumoniae, adults and children <5 yrs with radiographic pneumonia should be tested.
- Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected

"Further evaluation and diagnostic testing should also be considered for outpatients with strong epidemiologic risk factors and mild or moderate illness (see Box 3).

**Healthcare personnel should wear surgical or procedure masks on entering a patient's room (Droplet Precautions), as well as gloves and gowns, when indicated (Standard Precautions) (see Table and Supplement 4).

part2: clinical guidelines \$5-13

Appendix F

RESPIRATORY HYGIENE/COUGH ETIQUETTE

To contain respiratory secretions, all persons with signs and symptoms of a respiratory infection, regardless of presumed cause, should be instructed to:

- Cover the nose/mouth when coughing or sneezing.
- Use tissues to contain respiratory secretions.
- Dispose of tissues in the nearest waste receptacle after use.

• Perform hand hygiene after contact with respiratory secretions and contaminated objects/materials.

Healthcare facilities should ensure the availability of materials for adhering to respiratory hygiene/cough etiquette in waiting areas for patients and visitors:

- Provide tissues and no-touch receptacles for used tissue disposal.
- Provide conveniently located dispensers of alcohol-based hand rub.
- Provide soap and disposable towels for handwashing where sinks are available.

Masking and separation of persons with symptoms of respiratory infection

During periods of increased respiratory infection in the community, persons who are coughing should be offered either a procedure mask (i.e., with ear loops) or a surgical mask (i.e., with ties) to contain respiratory secretions.

Coughing persons should be encouraged to sit as far away as possible (at least 3 feet) from others in common waiting areas.

Appendix G



BOX 1. SUMMARY OF INFECTION CONTROL RECOMMENDATIONS FOR CARE OF PATIENTS WITH PANDEMIC INFLUENZA

COMPONENT	RECOMMENDATIONS
STANDARD PRECAUTIONS	See www.ede.gov/ncidod/hip/ISOLAT/std_prec_excerpt.htm
Hand hygiene	Perform hand hygiene after touching blood, body fluids, secretions, excretions, and contaminated items; after removing gloves; and between patient contacts. Hand hygiene includes both handwashing with either plain or antimicrobial soap and water or use of alcohol-based products (gels, rinses, foams) that contain an emollient and do not require the use of water. If hands are visibly soiled or contaminated with respiratory secretions, they should be washed with soap (either non-antimicrobial or antimicrobial) and water. In the absence of visible soiling of hands, approved alcohol-based products for hand disinfection are preferred over antimicrobial or plain soap and water because of their superior microbicidal activity, reduced drying of the skin, and corvenience.
Personal protective equipment (PPE) • Gloves	 For touching blood, body fluids, secretions, excretions, and contaminated items; for touching mucous membranes and nonintact skin
• Gown	 During procedures and patient-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated
 Face/eye protection (e.g., surgical or procedure mask and goggles or a face shield) 	 During procedures and patient care activities likely to generate splash or spray of blood, body fluids, secretions, excretions
Safe work practices	Avoid touching eyes, nose, mouth, or exposed skin with contaminated hands (gloved or ungloved); avoid touching surfaces with contaminated gloves and other PPE that are not directly related to patient care (e.g., door knobs, keys, light switches).
Patient resuscitation	Avoid unnecessary mouth-to-mouth contact; use mouthpiece, resuscitation bag, or other ventilation devices to prevent contact with mouth and oral secretions.
Soiled patient care equipment	Handle in a manner that prevents transfer of microorganisms to oneself, others, and environmental surfaces; wear gloves if visibly contaminated; perform hand hygiene after handling equipment.
Soiled linen and laundry	Handle in a manner that prevents transfer of microorganisms to oneself, others, and to environmental surfaces; wear gloves (gown if necessary) when handling and transporting soiled linen and laundry; and perform hand hygiene.
Needles and other sharps	Use devices with safety features when available; do not recap, bend, break or hand-manipulate used needles; if recapping is necessary, use a one- handed scoop technique; place used sharps in a puncture-resistant container.

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Appendix H

BOX 1. STRATEGIES FOR ANTIVIRAL USE IN PANDEMIC INFLUENZA TREATMENT AND PROPHYLAXIS (CONT.)

During the earliest stages of a pandemic in the United States:

- Basing treatment decisions on laboratory-confirmed subtype identification of the pandemic strain by viral isolation, RT-PCR, or other means recommended by CDC. A positive rapid antigen test for influenza A would be sufficient grounds for initiating treatment, with a confirmatory, definitive laboratory test required for continuation of treatment.
- Interpreting negative results of influenza testing as permitting termination of treatment, given the overall low
 rate of infection in a particular community.
- Considering targeted use of antivirals to contain small, well-defined disease clusters, to possibly delay or reduce spread to other communities (see also Part C (below) and Supplement 8).

When there is increasing disease activity in the United States:

- Basing treatment decisions on:
 - Laboratory-confirmed identification of the pandemic subtype by viral isolation and subtyping, RT-PCR, or other means recommended by CDC, or
 - · Detection of influenza A by rapid antigen test, or
 - Epidemiologic and clinical characteristics.
- Permitting initiation of antiviral treatment before results from viral isolation, IFA, RT-PCR assays, or rapid antigen tests become available, since early treatment is more likely to be effective.

Once infection becomes more common, negative rapid antigen test results are more likely to represent false negatives; therefore, treatment should continue while awaiting results from confirmatory testing.

When the pandemic is widespread in the United States:

 Basing treatment decisions on clinical features and epidemiologic risk factors, taking into account updated knowledge of the epidemiology of the pandemic virus.

As the pandemic progresses, strategies for antiviral treatment may be revised as new information is obtained about the pandemic strain.

B. Prophylaxis

1. Planning considerations for prophylaxis

- · Primary constraints on the use of antivirals for prophylaxis will be:
 - Limited supplies
 - Increasing risk of side effects with prolonged use
 - Potential emergence of drug-resistant variants of the pandemic strain, particularly with long-term use of M2 inhibitors
- The need for antiviral prophylaxis may decrease once an effective pandemic influenza vaccine becomes available for use among healthcare workers and other groups receiving prophylactic antivirals.

part2: antiviral drug distribution and use \$7-13

Appendix I

TABLE 2. RECOMMENDED DAILY DOSAGE OF ANTIVIRALS FOR TREATMENT AND PROPHYLAXIS

(From Prevention and Control of Influenza Recommendations of the Advisory Committee on Immunization Practices [ACIP], July 2005)

	Age Groups (years)					
Antiviral Agent	1-6	7–9	10-12	13-64	≥65	
Amantadine®						
Treatment, influenza A	5mg/kg body weight/day up to 150 mg in two divided doses ^t	5mg/kg body weight /day up to 150 mg in two divided doses ⁶	100 mg twice daily ^e	100 mg twice daily ^e	≰100 mg/day	
Prophylaxis, influenza A	Smg/kg body weight /day up to 150 mg in two divided doses ⁶	5mg/kg body weight /day up to 150 mg in two divided doses ⁶	100 mg twice daily ^e	100 mg twice daily ^e	≰100 mg/day	
Rimantadine ^d						
Treatment,* influenza A	NA ^r	NA	NA	100 mg twice daily ^{cg}	100 mg/day	
Prophylaxis, influenza A	5m/kg body weight /day up to 150 mg in two divided doses ¹	Smg/kg body weight /day up to 150 mg in two divided doses ⁶	100 mg twice daily ^e	100 mg twice daily ^e	100 mg/day ^h	
Zanamivir ^{ij}						
Treatment, influenza A and B	NA	10 mg twice daily	10 mg twice daily	10 mg twice daily	10 mg twice daily	
Oseltamivir						
Treatment, ^t influenza A and B	dose varies by child's weight ⁱ	dose varies by child's weight ⁱ	dose varies by child's weight ⁱ	75 mg twice daily	75 mg twic c daily	
Prophylaxis, influenza A and B	NA	NA	NA	75 mg/day	75 mg/day	

NOTE: Amantadine manufacturers include Endo Pharmaceuticals (Symmetrel (R)-tablet and syrup) and Geneva Pharms Tech (Amantadine HCL-capsule); USL Pharma (Amantadine HCL-capsule and tablet); and Alpharma, Carolina Medical, Copley Pharmaceutical, HiTech Pharma, Mikart, Morton Grove, and Pharmaceutical Associates (Amantadine HCL-syrup), and Sandoz. Rimantadine is manufactured by Forest Laboratories (Flumadine (R)-tablet and syrup); Corepharma, Impax Labs (Rimantadine HCL-tablet), and Arnide Pharmaceuticals (Rimantadine HCL-tablet). Zanamivri is manufactured by GlaxoSmithKline (Relenza (R)-inhaled powder). Oseltamivri is manufactured by Roche Pharmaceuticals (Tamiflu (R)-tablet). Information based on data published by the U.S. Food and Drug Administration at www.fda.gov, accessed 3/30/2006.

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Table A. Summary of the Community Mitigation Strategy by Pandemic Severity

Pandemic Severity Index					
Interventions* by Setting	1	2 and 3	4 and 5		
Home Voluntary isolation of ill at home (adults and children); combine with use of antiviral treatment as available and indicated	Recommend†§	Recommend†§	Recommend†§		
Voluntary quarantine of household members in homes with ill persons¶ (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient	Generally not recommended	Consider**	Recommend**		
School Child social distancing					
 -dismissal of students from schools and school based activities, and closure of child care programs 	Generally not recommended	Consider: ≤4 weeks††	Recommend: ≤12 weeks§§		
-reduce out-of-school social contacts and community mixing	Generally not recommended	Consider: ≤4 weeks††	Recommend: ≤12 weeks§§		
Workplace / Community Adult social distancing -decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings)	Generally not recommended	Consider	Recommend		
-increase distance between persons (e.g., reduce density in public transit, workplace)	Generally not recommended	Consider	Recommend		
-modify postpone, or cancel selected public gatherings to promote social distance (e.g., postpone indoor stadium events, theatre performances)	Generally not recommended	Consider	Recommend		
-modify work place schedules and practices (e.g., telework, staggered shifts)	Generally not recommended	Consider	Recommend		

Generally Not Recommended = Unless there is a compelling rationale for specific populations or jurisdictions, measures are generally not recommended for entire populations as the consequences may outweigh the benefits.

Consider = Important to consider these alternatives as part of a prudent planning strategy, considering characteristics of the pandemic, such as agespecific illness rate, geographic distribution, and the magnitude of adverse consequences. These factors may vary globally, nationally, and locally. Recommended = Generally recommended as an important component of the planning strategy.

'All these interventions should be used in combination with other infection control measures, including hand hygiene, cough etiquette, and personal protective equipment such as face masks. Additional information on infection control measures is available at www.pandemicflu.gov.

'This intervention may be combined with the treatment of sick individuals using antiviral medications and with vaccine campaigns, if supplies are available.

⁴Many sick individuals who are not critically ill may be managed safely at home.

"The contribution made by contact with asymptomatically infected individuals to disease transmission is unclear. Household members in homes with ill persons maybe at increased risk of contracting pandemic disease from an ill household member. These household members may have asymptomatic illness and may be able to shed influenza virus that promotes community disease transmission. Therefore, household members of homes with sick individuals would be advised to stay home. "To facilitate compliance and decrease risk of household transmission, this intervention may be combined with provision of antiviral medications to household contacts, depending on drug availability feasibility of distribution, and effectiveness; policy recommendations for antiviral prophylaxis are addressed in a separate guidance document. "Consider short-term implementation of this measure—that is, less than 4 weeks.

¹¹Plan for prolonged implementation of this measure—that is, 1 to 3 months; actual duration may vary depending on transmission in the community as the pandemic wave is expected to last 6-8 weeks.