

Guidelines for Preparing the University for SARS

July 6, 2003

ACHA Vaccine-Preventable Diseases Task Force

A. Introduction

Severe acute respiratory syndrome (SARS) is a contagious respiratory illness that has been reported in Asia, North America and Europe. A novel member of the coronavirus family, which CDC recently completed genome sequencing, is believed to be responsible for the global epidemic of SARS. Extensive, continuously updated information about SARS is available from the following two organizations:

Centers for Disease Control and Prevention (CDC):
www.cdc.gov/ncidod/sars

World Health Organization (WHO):
www.who.int/csr/sars/en/

In general, illness from SARS begins with a prodrome of fever ($>100.4^{\circ}\text{F}$ [$>38.0^{\circ}\text{C}$]). Fever often is high, sometimes is associated with chills and rigors, and might be accompanied by other symptoms, including headache, malaise, and myalgia. At the onset of illness, some persons have mild respiratory symptoms. Typically, rash and neurologic or gastrointestinal findings are absent; however, some patients have reported diarrhea during the febrile prodrome. After 3-7 days, a lower respiratory phase begins with the onset of a dry, nonproductive cough or dyspnea, which might be accompanied by or progress to hypoxemia. In 10-20% of cases, the respiratory illness is severe enough to require intubation and mechanical ventilation.

The primary way that SARS appears to be spread is by large-droplet transmission, which usually requires close person-to-person contact. However, the unusually rapid transmission of this disease suggests that airborne transmission through droplet nuclei of $< 10\ \mu\text{m}$ in diameter can occur. The virus may also be transmitted through direct contact with infectious droplets. Infection control precautions for this disease therefore involve the use of standard, airborne and contact precautions. For more information about infection control guidelines in general, go to www.cdc.gov/nciod/hip/isolat/isolat.htm. For specific information about infection control guidelines for SARS, go to www.cdc.gov/ncidod/sars/ic.htm. Hand hygiene, in particular, is extremely important in preventing the spread of SARS. For more information about hand hygiene, go to www.cdc.gov/handhygiene/.

Most of the U.S. cases of SARS have occurred among travelers returning to the United States from other parts of the world with SARS. SARS is of concern therefore to college and university officials because of the high volume of faculty, students, and visitors traveling to and from SARS-affected areas and because of the potential for rapid transmission in the highly congregate campus setting. Because of these unique issues, the American College Health Association has drafted the following guidelines to help college health officials prepare for SARS-related issues. The guidelines are intentionally comprehensive, however, each institution, small or large, will want to consider available university and local resources and modify the guidelines as needed to make them practical and useful. Moreover, it is imperative that each institution seek guidance and coordination from local and/or state public health department officials. These guidelines are meant to supplement guidelines available through the CDC and WHO. The following

recommendations are provided for SARS, however, specific responses to SARS should be a part of a larger plan for control of infectious diseases in college settings.

As campuses develop policies and procedures for dealing with SARS, consideration should be given to establishing a definitive alternative diagnosis in any given patient (e.g., influenza). This may prevent unnecessary hospitalization, as well as a potential public relations emergency. Simple, rapid, and inexpensive diagnostic testing may be utilized when appropriate to establish a definitive diagnosis other than SARS, although one should keep in mind that co-infection with SARS remains a possibility.

In addition, stigmatization of certain groups of students and visitors is a risk as we deal with this complex issue. Every effort should be made to inform and educate university communities about SARS and that the risks are associated with specific activities such as travel, and not associated with ethnicity or race.

B. Pre-Event Planning

1. Prepare the Student Health Service

a. Establish an Emergency Response Team (e. g., Acute Communicable Disease Team or SARS Action Committee). Identify individuals and alternates to whom specific responsibilities are assigned.

Suggested team members:

- 1) Team Leader = Medical/Nursing (Clinical) Director
- 2) Administration
- 3) Nursing
- 4) Information Technology (IT)
- 5) Health promotion
- 6) Reception staff
- 7) Mental health professionals
- 8) Local and/or state health department officials

b. Prepare internal alert mechanism

- 1) Develop notification roster and checklist
 - a) Home, cell, and pager numbers of key Student Health Service (SHS) personnel
 - b) Personal and work email addresses of key SHS personnel

2) Review communication plan with staff

c. Prepare external alert mechanism

1) Develop notification roster and checklist. Identify website addresses, phone numbers, home, cell, and pager numbers, as well as email addresses of key personnel:

- a) University emergency preparedness team
- b) Local and/or state health department
- c) University employee health service
- d) Closest academic medical center

1) Emergency room

2) Hospital epidemiology

3) Infectious diseases consultant

e) Local hospital emergency room

2) Review communication plan with staff

d. Prepare a private evaluation room within the SHS (a negative pressure room is not required but would be desirable if available). For more detailed information about containing the spread of respiratory pathogens in a health care setting, go to *Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health-Care Facilities, 1994* (MMWR, Vol. 43, No. RR13;001,10/28/1994).

- 1) It is not known if it is necessary to assure that contaminated air does not recirculate outside the evaluation room. Health centers may want to work with facilities manage-

ment staff to determine if air handlers or recirculation vents can be easily disengaged or shut off during evaluations.

- 2) HEPA filter in evaluation room can be considered if available.
- 3) Consider immediate referral to an appropriate evaluation facility (i.e., hospital ED) if an acceptable evaluation room cannot be prepared.

e. Stock Personal Protective Equipment (PPE). See currently recommended infection control measures for patients with SARS:
www.cdc.gov/ncidod/sars/ic.htm

- 1) N-95 respirators (or higher, e.g., N-99, N-100, P-100, etc.) with appropriate fit-testing
- 2) long sleeved isolation gowns
- 3) gloves
- 4) face shields or disposable goggles

f. Post signs at the entrance to the clinic asking patients with fever and/or respiratory symptoms and recent travel to SARS-affected areas or exposure to a SARS patient to self-identify to registration staff immediately. See Appendix A for an example of such a notice.

g. Prepare clinic protocols for evaluating SARS suspects. The intent of the protocols is to determine the likelihood of SARS exposure in the patient while simultaneously minimizing contact of this individual with others until the risk has been fully assessed. The protocols should address actions to be taken if:

- 1) A SARS suspect phones in
- 2) A SARS suspect walks in

Appendix B gives example protocols. Protocols should be specific for the health care setting and should reflect current CDC guidelines on triage and evaluation of possible SARS suspects:

www.cdc.gov/ncidod/sars/triage_interim_guidance.htm

www.cdc.gov/ncidod/sars/exposuremanagement/frame.htm

www.cdc.gov/ncidod/sars/infectioncontrol.htm

h. Train staff. Clinical and administrative staff should be educated about SARS and exposure management, including meticulous hand hygiene (soap and water and alcohol-based hand rubs), personal protective equipment, triage procedures, etc. Clinical staff should be fit-tested for N-95 respirator masks and trained in their use.

2. Prepare the University

a. Convene workgroup. Workgroup should include members of the University's Emergency Preparedness Team and may include:

- 1) Workgroup leader = SHS medical/nursing director
- 2) Local or state health department consultants
- 3) Academic medical center consultants
- 4) Local emergency room consultants
- 5) International Studies Office (incoming international students from SARS regions)
- 6) Study abroad programs (students going to SARS regions)
- 7) Housing, housekeeping, facilities management
- 8) Information Technology
- 9) Campus police
- 10) Counseling and Psychological Services
- 11) Food service
- 12) Academic deans and/or advisors
- 13) President's office
- 14) Vice president of student affairs
- 15) Dean of students
- 16) University relations/communications staff
- 17) Legal counsel
- 18) Human resources

b. Educate workgroup about the University's Emergency Preparedness Plan, SARS, the SHS internal alert mechanisms, and SHS' SARS protocols

c. Workgroup should consider preparation of isolation units in on-campus housing for students requiring isolation who cannot be isolated off-campus or at

home: (www.cdc.gov/ncidod/sars/isolation_quarantine.htm)

- 1) Isolation units should be identified in consultation with the local or state health department consultants.
 - a) contaminated air in unit cannot recirculate to other units
 - b) private bathroom
- 2) The student should be transported to the isolation unit with a surgical mask in place to contain respiratory secretions.
- 3) Identify who will be responsible for monitoring isolation compliance.
 - a) Campus police should work with the local/state health department to enforce isolation compliance.
 - b) Treating clinician and local/state health department should coordinate responsibility for monitoring of the isolated student's signs and symptoms.
 - c) Treating clinician and local/state health department and/or CDC should work together to determine when the 10-day isolation period is no longer indicated.
- 4) Prepare academic advisors, faculty and financial aid staff for dealing with student's academic and financial concerns resulting from prolonged class absence (i.e., may need to take leave of absence for semester).
- 5) Workgroup should develop a support program for students who are quarantined or isolated.
 - a) Establish a system to provide mental health support for students and parents (i.e., mental health counselor to telephone students on a regular basis to see how they are coping).
 - b) Develop a system to help provide students with supplies as needed (i.e., food, toiletries, etc.).
 - c) Implement a note taking program for students while they are in quarantine or isolation.

d) Provide tutoring to those students after quarantine or isolation

d. Workgroup should prepare a SARS event communications plan.

- 1) Electronic communications:
 - a) Develop mass email capability to all students, staff, and faculty (assure 24/7 access to IT individual who has access to these lists).
 - b) Develop website announcement capability including timed updates and FAQs.
 - c) Develop designated email address for questions from university community (as well as parents).
- 2) Phone communications:
 - a) Plan hotline with appropriate staffing.
 - b) Plan answering machine messages to include timed updates.
- 3) Written communications. Identify individual to write and plan the printing of:
 - a) patient education handouts
 - b) flyers and posters
 - c) student newspaper announcement
- 4) Spokesperson communications. Identify individual(s) to do presentations and answer questions in the following settings:
 - a) residence halls
 - b) classrooms
 - c) "town meeting"
 - d) employee work site
- 5) Plan media relations communication based on existing communication plans for emergency situations.
 - a) Identify university spokesperson
 - b) Funnel all media requests through designated spokesperson

C. Planning related to hosting arrivals to campus from SARS affected area.

1. The CDC, in consultation with ACHA, has developed guidelines for institutions that hosts students, scholars, and other visitors from SARS affected areas. The guidelines are available at www.cdc.gov/ncidod/sars/hostingarrivals.htm.

Key points in the guidelines are as follows:

- a) CDC is confident that comprehensive activities taking place to prevent importation and spread of SARS from inbound passengers will limit the spread and importation of the disease.
- b) Individuals arriving from SARS affected areas who have no symptoms should be permitted to engage in normal activities in the host communities and institutions.
- c) At this time, CDC does not recommend quarantine of persons arriving from areas with SARS. CDC's Infection Control 72-hour rule and procedures should be consulted regarding persons with symptoms (See CDC's "Interim Domestic Guidance on Persons Who May Have Been Exposed to Patients with Suspected Severe Acute Respiratory Syndrome (SARS)" at www.cdc.gov/ncidod/sars/exposuremanagement.htm).
- d) If a university or college official becomes aware of an individual from a SARS affected area who has developed a fever or respiratory symptoms, the institution should exclude the patient from normal activities. In addition, the institution should assure that appropriate health care personnel are alerted that an individual from a SARS affected area requires evaluation. Advance preparations can be made to implement infection control procedures to prevent transmission during transport and in the health-care setting. Notification of appropriate state or local health officials should occur if SARS is suspected.

e) Additional optional steps can be taken by institutions to inform arriving students, scholars, and visitors from SARS affected areas about symptoms of SARS as well as prevention activities.

2. ACHA recommends that institutional health insurance policies be made readily available to students and scholars upon arrival on campus to assure resources are available to care for suspected SARS cases.

3. ACHA also recommends that information regarding SARS issues be made available to arriving students and scholars in admission materials and/or pre-entrance health forms, orientation sessions, on-campus websites, and in health education materials available in student health centers.

D. Planning for university students, faculty, or staff who will be traveling to SARS affected countries.

1. The CDC has developed guidelines for travelers to SARS affected countries. The CDC has issued travel advisories for countries where active outbreaks of SARS are on-going and the risk of exposure is high. Non-essential travel to these countries is discouraged. Travel advisories change frequently, so ACHA advises all travelers to get the most updated information on the following web sites:

www.cdc.gov/ncidod/sars/travel_alertadvisory.htm
www.cdc.gov/ncidod/sars/travel_advice.htm

2. Precautions should be taken by university students, faculty, or staff who will be functioning as health care providers in SARS affected countries. Detailed information for health care providers can be found at the following website:

www.cdc.gov/ncidod/sars/ic.htm#healthcare

3. The university should consider establishing institutional policies or advisory statements for

employees and students who travel abroad to SARS affected areas.

4. ACHA encourages anyone traveling outside the United States to assure appropriate immunizations are up to date.

Appendix A

SARS

To all our patients and visitors:

Due to the recent outbreak of Severe Acute Respiratory Syndrome (SARS) in certain parts of the world, we need to know:

Have you been in close contact with someone known to have SARS? **OR** Have you been in any of the following countries or cities in the past two weeks?

- Peoples' Republic of China, including Mainland China and Hong Kong
- Taiwan?
- Toronto, Canada?

NOTE: Travel advisories and alerts change frequently and updated information is available at the following websites:

www.cdc.gov/ncidod/sars/travel_alertadvisory.htm
www.cdc.gov/ncidod/sars/travel_advice.htm

If you answered "YES," to either of the above questions, do you have any of the following symptoms?

- Fever
- Cough
- Shortness of breath
- Difficulty breathing
- Diarrhea

If you answered "YES," before you go to other areas, please immediately see the registration staff.

Appendix B

Sample Protocols

Note: It is important to remember that establishing a definitive alternative diagnosis in a given patient (e.g., influenza, streptococcal pharyngitis, or infectious mononucleosis) can prevent unnecessary hospitalization, consumption of limited healthcare and university resources, as well as a potential public relations emergency. Simple, rapid, and inexpensive diagnostic testing available in many student health centers should be utilized when appropriate to establish a definitive diagnosis other than SARS.

1. If the patient phones in:

a) If the patient complains of fever, flu-like illness, or respiratory symptoms, ask about recent travel to a SARS-affected country and/or exposure to a SARS patient.

1) If yes, the patient should be diverted to a medical facility where evaluation can take place in a setting which minimizes the potential for transmission of SARS. The patient should be instructed to not use public transportation. Family members, EMS, or university staff should be utilized to transport patients.

a) If patient is determined to be high risk, activate the internal alert mechanism.

2) If no, triage the patient as usual.

2. If the patient walks in:

a) Receptionist: If a student self-identifies as having possible SARS exposure:

1) Hand the student a surgical mask to put on.

2) Place the student in the SARS evaluation room.

3) Patient should use hand hygiene products or wash hands with soap and water.

3) Close the door and post an "Isolation" sign on the door.

4) Call the medical provider who will do the SARS evaluation.

5) Complete an exposure log for anyone (staff, students in the lobby) who may have had contact with the patient in the SHS. Exposure log should include name, ID number, and all contact information (phone, cell, email address).

b) Medical provider assigned to do SARS evaluation:

- 1) Activate the internal alert mechanism.
- 2) Don PPE (N-95 respirator, gown, gloves, faceshield or disposable goggles).
- 3) Clinical evaluation as appropriate.

To meet the suspect case definition of SARS, the patient must meet both epidemiologic criteria AND symptom criteria:

- a) epidemiologic criteria:
 - i. travel from an area with documented or suspected community transmission of SARS,

OR

- ii. close contact with a person who has SARS
(www.cdc.gov/ncidod/sars/exposuremanagementframe.htm)

AND

b) symptom criteria:

- i. fever (temperature > 100.40 F (>38.0 C.) and one or more clinical findings of respiratory illness (e.g., cough, shortness of breath, difficulty breathing, or hypoxia)

4) If the patient meets the suspect case definition and alternative diagnosis cannot be established (www.cdc.gov/ncidod/sars/casedefinition.htm), the medical provider:

- a) contacts a medical facility (e.g., emergency room or health department clinic) where appropriate diagnostics can take place in a safe environment.
- b) In conjunction with the local health department develop a list of contacts of patient to include close contacts, close casual contacts, classroom and other con-

tacts. Contacts are advised to follow CDC guidelines: www.cdc.gov/ncidod/sars/exposurestudents.htm.

- c) activates external alert mechanism.
- d) arranges for transport of patient to appropriate medical facility.
- e) properly disposes of used PPE and washes hands or disinfects hands with an alcohol-based hand rub immediately after removal of gloves.

5) Transport of high-risk patients:

- a) Transport of high-risk patients within the hospital complex should take place in accordance with hospital protocols.
- b) Transport of high-risk patients from outside the hospital complex: call 911, alerting the responders that they will be transporting a possible SARS patient. CDC | Updated Interim Guidance: Pre-Hospital Emergency Medical Care and Ground Transport of Suspected Severe Acute Respiratory Syndrome Patients: www.cdc.gov/ncidod/sars/emtguidance.htm

6) Cleaning of SARS evaluation room should take place according to the following guidelines: CDC | Recommendations for Cleaning & Disinfection of the SARS Patient Environment - Severe Acute Respiratory Syndrome (SARS): www.cdc.gov/ncidod/sars/cleaningpatientenviro.htm.

7) If the patient meets epidemiologic criteria has (fever OR cough), the patient should be isolated for 72 hours and monitored (coordinate monitoring with the local health department) according to CDC guidelines: www.cdc.gov/ncidod/sars/exposuremanagementframe.htm

The patient should be masked during transport to isolation housing.



American College Health Association
P.O. Box 28937
Baltimore, MD 21240-8937
(410) 859-1500 / (410) 859-1510 fax