disease prevention news

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TDH Joins CDC Investigation of Severe Acute Respiratory Syndrome

The Centers for Disease Control and Prevention (CDC) continues to support the World Health Organization (WHO) investigation of a multicountry outbreak of unexplained atypical pneumonia referred to as severe acute respiratory syndrome (SARS). Probable cases are being reported by all countries except the United States, which is reporting suspect cases under investigation. From November 1, 2002, through April 8, 2003, WHO has received reports worldwide of a total of 2,671 probable SARS cases and 103 deaths. As of April 6, CDC has reported 148 suspected cases under investigation in the US and no deaths. Most of the US patients are recovering. Many of them are already home.

The Texas Department of Health and local health departments are investigating all suspected Texas cases. As of April 7, 2003, 4 suspected SARS cases in Texas are currently being investigated, with no reported deaths.

On March 27, WHO announced that a previously unrecognized virus from the coronavirus family is the leading candidate for the cause of SARS. Two coronaviruses that are known to infect humans cause as many as one third of common colds and are also a common cause of health care-associated upper respiratory infections in premature infants. Scientists worldwide continue to look at other possible causes of SARS, but this is a key finding in the efforts to identify the cause of this global outbreak. Additional steps needed to confirm this hypothesis include further culturing of the virus from appropriate specimens, sequencing the viral genome, and examining specimens from patients at different stages of their illness. As of April 2, CDC had begun the process of releasing to state health departments coronavirus test results from the patient samples CDC has received so far.

General updated information about SARS in the US, with links to other pertinent sites is available at the CDC Web site listed below. This Web site includes guidelines and recommendations for clinicians and health departments, including guidelines for management of SARS exposure in medical, health care, and other institutional settings. This CDC site also provides instructions for specimen collection and shipping, isolation and infection control, respiratory protection, and quarantine. Also available at this site are updates on the case definition, US and worldwide case counts, status of the investigation, and travel advisories.

The following Web sites provide updated information:

SARS Worldwide:	www.who.int/csr/sarscountry/en/
WHO Case Definition:	www.cdc.gov/mmwr/preview/mmwrhtml/mm5212a1.htm
CDC SARS Web Site:	www.cdc.gov/ncidod/sars/
SARS in Texas:	www.tdh.state.tx.us/news/updates.htm

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Symptoms and Signs of SARS

The incubation period is believed to be 2 to 7 days but may be as long as 10 days. The illness begins generally with a fever greater than 100.4°F (>38.0°C). The fever is sometimes associated with chills or other symptoms, including headache, malaise, and body aches. Some persons also experience mild respiratory symptoms at the onset. After 3 to 7 days, the person usually develops a dry, nonproductive cough and/or shortness of breath. In some cases these symptoms are followed by hypoxia and pneumonia. In 10% to 20% of cases, patients will require mechanical ventilation.

Case Definition

Suspect Case:

Respiratory illness of unknown etiology with onset since February 1, 2003, and the following criteria:

- Measured temperature ≥ 100.5°F (>38° C) **AND**
- One or more clinical findings of respiratory illness (eg, cough, shortness of breath, difficulty breathing, hypoxia, or radiographic findings of either pneumonia or acute respiratory distress syndrome) **AND**
- Travel within 10 days of onset of symptoms to an area with documented or suspected community transmission of SARS* (excludes areas with secondary cases limited to health care workers or direct household contacts)

OR

- Close contact within 10 days of onset of symptoms with either a person with a respiratory illness who traveled to a SARS area or a person known to have suspected SARS. Close contact is defined as a person who cared for, lived with, or had direct contact with respiratory secretions and/or body fluids of a patient known to have suspected SARS.

*As of April 2, 2003, areas with documented or suspected community transmission of SARS are as follows: Peoples' Republic of China (ie, all of mainland China and Hong Kong Special Administrative Region), Hanoi, Vietnam, and Singapore. CDC is advising against nonessential travel to these areas and will continue to monitor worldwide cases to update travel advisories.

Note: Suspect cases with either radiographic evidence of pneumonia or respiratory distress syndrome, or evidence of unexplained respiratory distress syndrome by autopsy are designated "probable" cases by the WHO case definition. The CDC case definition is subject to change. (See CDC SARS Web site listed on Page 1 of this article.)

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Guidance for Texas Clinicians

The Texas Department of Health (TDH) is asking clinicians to be alert for patients with respiratory illness of unknown etiology with onset on or after February 1, 2003.

If possible, patients with suspected SARS who present to the outpatient or ambulatory setting (eg, clinic or emergency department [ED]), should be evaluated in a separate assessment area to determine if they meet the case definition for suspected SARS and require isolation. An N-95 mask should be placed on the patient if possible. Health care workers are advised to use personal protective equipment appropriate for standard, contact, and airborne precautions (eg, hand hygiene, gown, gloves, and N-95 respirators) in addition to eye protection, to prevent transmission of SARS in health care settings. If N-95 respirators are not available, surgical masks should be worn.

If a patient with suspected SARS is admitted to the hospital, infection control personnel should be notified immediately. Infection control measures for patients with suspected SARS should include the following:

- Standard precautions (eg, strict hand hygiene), as well as eye protection for all patient contact
- Contact precautions (eg, use of gown and gloves for contact with the patient or their environment)
- Airborne precautions (eg, an isolation room with negative pressure relative to the surrounding area and use of an N-95 filtering disposable respirator for persons entering the room)

If airborne precautions cannot be fully implemented, patients should be placed in a private room, and all persons entering the room should wear N-95 respirators. If N-95 respirators are not available, surgical masks should be worn.

Placing N-95 respirators on patients with suspected SARS during contact with others at home is recommended. If the patient is unable to wear an N-95 respirator, it may be prudent for and household member to wear an N-95 respirator when in close contact with the patient. If N-95 respirators are not available, patients and close contacts should wear surgical masks.

Because the etiology of these illnesses has not yet been determined, no specific treatment recommendations can be made at this time. Treatment may be influenced by severity of the illness. Infectious disease consultation is recommended.

Health care providers should immediately report suspected cases of atypical pneumonia (also referred to as SARS) to the local health department or the TDH regional health department.

Local Health Department: 800/705-8868, Press 5 (automatically connects to the local health department in the area from which the call is made)

TDH Central Office: 800/252-8239 (After hours, Press 6 for an on-call physician.)
OR 512/458-7111 (Press, 0 for an on-call physician.

TDH Infectious Disease Epidemiology and Surveillance Division: 512/458-7676

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Please have the following information available:

- Patient name
- Month and year of birth
- Sex
- Onset date
- Clinical status (alive or dead)
- If dead, date of death
- If dead, autopsy performed? Yes or No
- Hospitalized? Yes or No
- If hospitalized, name of hospital
- Patient placed on a mechanical ventilator? Yes or No
- Patient is a health care worker? Yes or No
- If health care worker, place(s) of employment
- Possible epidemiologic ties to other cases: dates and places for recent travel, dates and type of exposure for those exposed to other ill persons, and if available, ID numbers for the presumed source of their infection.

In addition to reporting suspected cases, clinical specimens may need to be collected **in consultation with TDH**. Preserve as many acute and convalescent specimens as possible. TDH will provide more information as it becomes available.

Reference

The information for this article was obtained from the CDC Web sites listed on Page 1 and from the TDH Infectious Disease Epidemiology and Surveillance Division.

Health professionals who need further information regarding SARS in Texas not provided in this article or on the Web sites listed, may contact Neil Pascoe at 512/458-7676; neil.pascoe@tdh.state.tx.us.

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