

SARS: CLINICAL AND EPIDEMIOLOGIC GUIDE

Planning and Training, Absence of Known SARS Activity Worldwide

1. Stay tuned for Health Alerts from media and Public Health Agencies (WHO, CDC, State and Local Health Depts.) regarding worldwide community or healthcare-associated SARS transmission.
2. Be alert for unusual clusters of atypical pneumonia involving 2 or more healthcare workers, onset within 10 days of one another, and who work in the same facility. Report such clusters to Public Health immediately.
3. Train appropriate personnel for “Point of Care” triage:
 - a. Receptionists, phone nurses, or any other personnel with first contact of acutely ill patients.
 - b. Appointment clerks may be instructed to schedule patients with suggestive histories to the end of the day or some other less busy time when the chances of infecting others in the waiting area are less.
 - c. Appointment clerks could also schedule patients to arrive and go directly into isolation areas, perhaps with specified times to arrive and entrances to use.
 - d. Screening questions
 1. Clinical: prodrome of fever, fatigue, headache, malaise, myalgias followed by dry cough, shortness of breath or difficulty breathing; absence of sore throat and sneezing.
 2. Epidemiologic: travel within 10 days to a region with previous SARS transmission (China, Hong Kong, Singapore, Taiwan, Vietnam, and Toronto, Canada), employment as a healthcare worker, or contact within 10 days of a person known to have radiographic evidence of pneumonia without an alternative diagnosis.
4. Isolate all suspected SARS cases immediately.
 - a. Have patient don a surgical mask and provide patient with tissue
 - b. Place patient in an exam room immediately or in an isolated area of a waiting room
 - c. Personal protective equipment (PPE) should be worn by all healthcare personnel evaluating a patient with suspected SARS:
 1. Fit-tested N-95 respirator
 2. Eye protection
 3. Disposable impervious gowns
 4. Gloves
 - d. Proper removal of PPE
 1. At the door just prior to exit:
Remove gown by unfastening the back and then remove with inside outward
Dispose of gown in trash
Remove gloves by peeling off inside out
Dispose of gloves in trash
Exit room.
 2. At door just outside of room:
If wearing face shield, remove and dispose of shield in trash
Remove N-95 respirator and discard in trash
Remove hood and booties (if worn) and discard in trash
Perform hand hygiene with antiseptic soap
Decontaminate goggles (if worn) by wiping exterior surface with alcohol
Perform hand hygiene again with antiseptic soap.
5. Whether SARS is circulating or not, always encourage respiratory hygiene in your patients:
 - a. Signage in lobby instructing patients to cover their mouths and noses with tissue when coughing or sneezing.
 - b. Provide tissues in the lobby and reception areas, and supply patient with means to dispose of used tissue.
 - c. Encourage hand washing after nose blowing and coughing.

Re-Emergence of SARS: Protocol for Evaluating a Suspect Case

1. Notify your local health department immediately during regular office hours; if after hours, call the on-call person at the local health department or the state's 24/7 line of the General Communicable Disease Control Branch at 919-733-3419. Note: this is a legal requirement of physicians who must report even when they suspect a SARS case (NCGS §130A-135).
2. Outpatient evaluation
 - a. After history and physical exam, patient does not appear ill enough for admission.
 - b. In-office chest x-ray: have patient don surgical mask while in x-ray suite.
 - c. Out-of-facility chest x-ray ordered: notify radiologist of patient's condition and give patient a surgical mask to don in x-ray facility.
3. Inpatient evaluation
 - a. After history and physical exam, patient appears ill enough to require hospital admission (e.g. advanced age, moderate to severe respiratory distress, resting pulse-ox <90%).
 - b. Notify hospital ED triage of patient's condition.
 - c. Have patient don surgical mask and transport to hospital.
4. SARS-specific laboratory testing
 - a. Testing is performed free of charge at the State Laboratory of Public Health (SLPH) in Raleigh.
 - b. **Testing will only be performed after the patient has been reported to the local or State Health Department and a case number has been assigned by Public Health.**
 - c. Nucleic acid detection for SARS coronavirus is performed on all samples listed below. Serology is done only on serum samples.
 - d. Complete the Lab forms available on the web:

Forms for Nucleic Acid Detection:

Submittal <http://slph.state.nc.us/Forms/DHHS-3431.pdf>

Consent <http://www.cdc.gov/ncidod/sars/lab/rtpcr/pdf/rtpcrparticipant.pdf>

Forms for Serology:

Submittal <http://slph.state.nc.us/Forms/DHHS-3445.pdf>

Consent <http://www.cdc.gov/ncidod/sars/lab/eia/pdf/eiaconsent.pdf>

SARS LABORATORY GUIDANCE: COLLECTION PROCEDURES FOR OUTPATIENTS

Before collecting specimens, review infection control precautions at:

<http://www.cdc.gov/ncidod/sars/infectioncontrol.htm>

<http://www.cdc.gov/ncidod/sars/aerosolinfectioncontrol.htm>

Recommended specimens from Outpatients: Please take as many of the samples listed below as possible.

Label each type of sample with an ID number and collection date:

Sputum: Please advise patient of difference between spit and sputum.

Nasopharyngeal Wash/Aspirate: Use non-bacteriostatic saline.

Nasopharyngeal/Oropharyngeal Swabs: USE ONLY DACRON OR RAYON SWABS with plastic shafts. After swabbing, place swabs in sterile vials containing viral transport media (2mL). Break applicator shaft off near the tip to permit tightening of the cap.

Serum: Collect 5-10 mL whole blood in serum separator tube. Allow blood to clot, centrifuge briefly, and collect all resulting sera in vials with external caps and internal O-ring seals. If O-ring seals are unavailable, then seal tightly with available cap and secure with Parafilm®.

Blood: Collect 5-10 mL in an EDTA (Purple-top) tube.

Stool: Begin collecting stool samples as soon as possible in the course of the illness. Obtain as large a quantity as possible (at least 10 mL, but less than a paint can full, please!) in a leak-proof, clean dry container (such as a sterile urine cup or 50 mL blue cap tube). Patients may drape plastic kitchen wrap across the back half of the toilet, under the toilet seat, to facilitate collection of specimens.

All specimens should be shipped at 4 ° C (using cold packs).

Final, General Communicable Disease Control, Division of Public Health
December 1, 2003

The specimens should be shipped as "DIAGNOSTIC SPECIMENS". Complete instructions should be reviewed at: <http://www.cdc.gov/ncidod/sars/pdf/packingspecimens-sars.pdf>

The samples should be shipped within a watertight primary receptacle (sample vial). That receptacle should then be placed in a secondary package using enough absorbent material to absorb the entire contents of all primary receptacles in case of leakage or damage. The secondary packaging must be watertight and also meet the IATA packaging requirements for diagnostic specimens. The secondary packaging is placed in the outer package (box) and contains the exact wording:

UN 3373 DIAGNOSTIC SPECIMEN
PACKED IN COMPLIANCE WITH
IATA PACKING INSTRUCTION 650

An itemized list of contents, completed requisition forms, and consent forms must be enclosed between the secondary packaging and the outer packaging in a sealed plastic bag to protect from moisture. A Shipper's Declaration for Dangerous Goods is **NOT** required. PLEASE COORDINATE SHIPMENT OF SARS SPECIMENS THROUGH STATE GENERAL COMMUNICABLE DISEASE CONTROL BRANCH (919-733-3419) OR DIRECTLY WITH THE NCSLPH (919-733-7834).

Shipping Address:
NC State Laboratory of Public Health
306 N. Wilmington Street
Raleigh, NC 27601