



**Johns Hopkins – SARS**  
**Clinician Information Sheet (Inpatient and Outpatient)**  
**Frequently Asked Questions**  
(Latest Version December, 2003)

**What is SARS?**

Severe acute respiratory syndrome (SARS) is a viral respiratory illness that was first reported in Asia in February 2003. In early March, the World Health Organization (WHO) issued a global alert about SARS. Over the next few months, the illness spread to more than two dozen countries in North America, South America, Europe, and Asia. By late July, however, no new cases were being reported and the illness was considered contained.

**What is the etiologic agent?**

SARS is caused by a previously unrecognized coronavirus, called SARS-associated coronavirus (SARS-CoV). Coronaviruses are a group of viruses that have a halo or crown-like (corona) appearance when viewed under a microscope. These viruses are a common cause of mild to moderate upper-respiratory illness in humans and are associated with respiratory, gastrointestinal, liver and neurologic disease in animals.

**How is SARS spread?**

The primary way that SARS appears to spread is by close person-to-person contact. The virus that causes SARS is thought to be transmitted most readily by respiratory droplets (droplet spread) produced when an infected person coughs or sneezes. Droplet spread can happen when droplets from the cough or sneeze of an infected person are propelled a short distance (generally up to 3 feet) through the air and deposited on the mucous membranes of the mouth, nose, or eyes of persons who are nearby. The virus also can spread when a person touches a surface or object contaminated with infectious droplets and then touches his or her mouth, nose, or eye(s). In addition, it is possible that SARS-CoV might be spread more broadly through the air (airborne spread) or by other ways that are not now known.

**What is a close contact?**

A “close contact” is considered to be any person having

- Cared for;
- Lived with;
- Had face-to-face (within 3 feet) contact with; or,
- Had contact with respiratory secretions (i.e. fluid from the mouth or nose) from, a person considered or suspected to have severe acute respiratory syndrome (SARS).

**What are the symptoms of SARS?**

The illness usually begins with a high fever (measured temperature greater than 100.4°F [ $>38.0^{\circ}\text{C}$ ]). The fever is sometimes associated with chills or other symptoms, including headache, general feeling of discomfort, and body aches. Some people also experience mild respiratory symptoms at the outset. Diarrhea is seen in approximately 10 percent to 20 percent of patients.

After 2 to 7 days, SARS patients may develop a dry, nonproductive cough that might be accompanied by or progress to a condition (hypoxia) in which insufficient oxygen is getting to the blood. In 10 percent to 20 percent of cases, patients require mechanical ventilation. Most patients develop pneumonia.

**Is there a laboratory test that can be used to diagnose SARS?**

Yes, several laboratory tests can be used to detect SARS-CoV. A reverse transcription polymerase chain reaction (RT-PCR) test can detect SARS-CoV in clinical specimens, including blood, stool, and nasal secretions. Serologic testing also can be performed to detect SARS-CoV antibodies produced after infection. Finally, viral culture has been used to detect SARS-CoV.

- **What is a PCR test?**

PCR (or polymerase chain reaction) is a laboratory method for detecting the genetic material of an infectious disease agent in specimens from patients. This type of testing has become an essential tool for detecting infectious disease agents.

- **What does serologic testing involve?**

A serologic test is a laboratory method for detecting the presence and/or level of antibodies to an infectious agent in serum from a person. Antibodies are substances made by the body's immune system to fight a specific infection.

- **What does viral culture and isolation involve?**

For a viral culture, a small sample of tissue or fluid that may be infected is placed in a container along with cells in which the virus can grow. If the virus grows in the culture, it will cause changes in the cells that can be seen under a microscope.

### **How do I screen a patient for SARS?**

- The patient should be interviewed to determine their travel history, symptoms and/or contact with a person diagnosed with SARS.
- Triage staff should assess any patient with appropriate travel history for a fever over 38° C 100.4°F) and one or more respiratory symptoms.
- JHH Employees should explain precautionary measures and apply appropriate respiratory protective mask for airborne isolation.

### **What are the infection control precautions for SARS patients in the Emergency Department or in-patient areas?**

- Airborne (including an isolation room with negative pressure and use of a positive air purifying respiratory (PAPR) respirators for healthcare workers entering the room) AND Contact precautions (including use of gown and gloves for contact with patients or their environment). Surgical masks are not acceptable for healthcare workers caring for SARS patients.
- Visitors accompanying the patient to the hospital should be asked to wear a surgical masks when leaving the isolation room of the patient and dispose of the mask in a trash container after they leave the patient's care area

### **How should in-patients with SARS be transported?**

- Patients should be confined to their rooms and patient movement outside of the room should be avoided as much as possible. All procedures and blood culture should be performed in the patient's room whenever possible.
- Patients should be out of their rooms for essential procedures only.
- The transport staff should wear the proper personal protective equipment (PPE) and the route should avoid highly populated areas, and a dedicated patient elevator, with no other patients on it.
- Patients should wear a surgical mask while out of their rooms.
- Personnel in the area to which patient is to be transported should be aware of and follow appropriate precautions.

### **What are the infection control precautions for SARS in the outpatient area?**

- Patients who come to outpatient clinical areas will see posters and receive flyers educating them about SARS .Flyers will direct potential at risk patients to inquire at an appropriate area depending on the location closest to the patient's current location.
- JHH employees assisting the patient should explain precautionary measures and use proper respiratory PPE, and provide surgical masks to the patient and visitors.
- The JHH employee should obtain back-up relief and a wheelchair, and transport the patient and visitors to the Emergency Department immediately.

- Back-up relief should contact the Emergency Department Charge Nurse at 5-2280 and state that a suspected SARS patient is in route.
- If appropriate, the back-up relief should call the clinic to inform them of a potential delay.
- HEIC will notify the appropriate public health authorities and assist with issues regarding isolation of patients and isolation precautions

**How should suspected SARS patients be transported to the Emergency Department?**

- Once a patient is determined to be a potential case of SARS, appropriate Hopkins staff will escort them to the Emergency Department wearing proper respiratory PPE and gloves during transport. Patient and visitors should wear a surgical mask during transport.
- Prior to transport, the Emergency Department Charge Nurse should be contacted at 5-2280 and informed about the suspected SARS patient in route who will prepare ED staff for isolation.
- The transport route should avoid highly-populated areas, and a dedicated patient elevator, with no other patients on it.
- Emergency Department Staff will page HEIC at 3-3855 once the patient is in route to the ED and notify entrance desk to open ED access from tunnel.

*For handouts or more information, please see visit the Centers for Disease Control (CDC) Website at:*  
<http://www.cdc.gov/ncidod/sars/index.htm>