



Infectious Disease SOP— Severe Acute Respiratory Syndrome (SARS)

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Maintenance Steward: Epidemiology Supervisor History: New Revised Archived

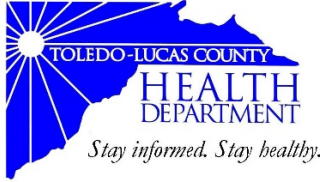
Organizational Scope:
 Full Agency Administration Community Services Environmental Health Health Services

Frequency of Review:
 Annually Biennially 5 Years As Needed Other:

Location:
 G-Drive: S: → Users → Common → Policies & Procedures
 Website: www.lucascountyhealth.com/employee-login/
 Hardcopy: Environmental Health and Community Services Director's Office
 Archived Version(s): S:\CSRP\SOGs\Archives

Requisite Signatures

<input checked="" type="checkbox"/>	 _____ Medical Director	7-20-17 _____ Date
<input checked="" type="checkbox"/>	 _____ Health Commissioner	07-20-17 _____ Date
<input checked="" type="checkbox"/>	 _____ Director of Environmental Health & Community Services	7/20/2017 _____ Date



Infectious Disease SOP— Severe Acute Respiratory Syndrome (SARS)

I. Policy

It is the policy of the Toledo-Lucas County Health Department (TLCHD) to adhere to all state, federal, and local statutes governing the management and case investigation of individual communicable disease cases and outbreaks within Lucas County.

II. Scope

This standard procedure applies to the Infectious Disease Program when investigating one case of Severe Acute Respiratory Syndrome (SARS). When an outbreak occurs, call ODH ORBIT. In an outbreak, refer to the “Epi and Surveillance OB Procedure.”

III. Purpose

This procedure/process establishes guidelines for Severe Acute Respiratory Syndrome (SARS) investigations. Per the Ohio Administrative Code (OAC) 3701-3, Severe Acute Respiratory Syndrome (SARS) is a Class A disease and must be reported immediately via telephone according to 3701-3-02, 3701-3-03, 3701-3-04, and 3701-3-05 of the Administrative Code.

IV. Background

Severe Acute Respiratory Syndrome (SARS) is caused by SARS-associated coronavirus (SARS-CoV), a species of Coronaviridae. SARS typically begins with a fever (temperature > (100.4°F [$>38.0^{\circ}\text{C}$]) and can also include symptoms such as headache, overall feelings of discomfort, and body aches. Progressive respiratory symptoms also develop at the onset of symptoms or shortly afterwards.

The main source of the SARS virus in the 2002-2003 outbreak was the Himalayan masked palm civet. A lab accident or undetected transmission in humans may be potential sources of the virus as well. Since the 8,098 cases reported worldwide during November 2002-July 2003, there are currently no known cases of person-to-person transmission of SARS-CoV worldwide. The main way that SARS is spread is by close person-to-person contact, most frequently by respiratory droplets produced when an infected person coughs or sneezes. The virus can also spread when a person touches a surface or object contaminated with infectious droplets and then touches his or her mouth, eyes, or nose. Information suggested that people with SARS are most likely to be infectious only when they have symptoms, such as fever or cough. However, as a precaution, CDC recommends that people with SARS limit their interactions outside the home until 10 days after their symptoms go away. The incubation period for this disease is 2-10 days, though it is most commonly 4-6 days.

Initial diagnostic testing for suspected SARS patients should include radiograph, pulse oximetry, blood cultures, sputum Gram stain and culture, and testing for viral respiratory pathogens (influenza A, B) and respiratory syncytial virus (RSV). Acute and convalescent serum samples should be collected from each patient who meets the SARS case definition.

V. Case Description

A. Early Illness

1. Presence of two or more of the following features: fever, chills, rigors, myalgia, headache, diarrhea, sore throat, or rhinorrhea

B. Mild-to-moderate respiratory illness

1. Temperature of >100.4°F (>38.0°C), AND
2. One or more clinical findings of lower respiratory illness (e.g. cough, shortness of breath, or difficulty breathing)

C. Laboratory Criteria for Diagnosis

1. Tests to detect SARS-CoV are being refined and their performance characteristics are being assessed continuously. The following are general criteria for laboratory confirmation of SARS-CoV:
 - a. Detection of serum antibody to SARS-CoV by a test validated by the CDC such as enzyme immunoassay, OR
 - b. Isolation of cell culture of SARS-CoV from a clinical specimen, OR
 - c. Detection of SARS-CoV RNA by a reverse transcriptase polymerase chain reaction (RT-PCR) test validated by CDC and with subsequent confirmation in a reference laboratory (e.g. CDC)

VI. Case Classification

A. **Probable:**

1. Meets the clinical criteria for severe respiratory illness and the epidemiologic criteria for likely exposure to SARS-CoV.

B. **Confirmed:**

1. A clinically compatible illness that is laboratory confirmed.

C. **Not a case:**

1. This status is not generally used when reporting a case, but may be used to reclassify a report if investigation revealed it was not a case.

VII. Exclusion criteria:

A. *A case may be excluded as a SARS report under investigation (SARS RUI), including as a CDC-defined probable SARS case, if any of the following apply:*

1. *An alternative diagnosis can fully explain the illness, OR*
2. *Antibody to SARS-CoV is undetectable in a serum specimen obtained >28 days after illness onset, OR*
3. *The case was reported on the basis of contact with a person who was subsequently excluded as a case of SARS-CoV disease; then the reported case also is excluded, provided other epidemiologic or laboratory criteria are not present.*

VIII. **SARS Report Under Investigation (SARS RUI):**

A. *Reports in persons from areas where SARS is not known to be active*

1. *SARS RUI-1 → cases compatible with SARS in groups likely to be first affected by SARS-CoV if SARS-CoV is introduced from a person without clear epidemiologic links to known cases of SARS-CoV disease or places with known ongoing transmission of SARS-CoV*

- B. Reports in persons from areas where SARS activity is occurring**
 - 1. SARS RUI-2 → cases meeting the clinical criteria for mild-to-moderate illness and the epidemiologic criteria for possible exposure
 - 2. SARS RUI-3 → cases meeting the clinical criteria for severe illness and the epidemiologic criteria for possible exposure
 - 3. SARS RUI-4 → cases meeting the clinical criteria for early or mild-to-moderate illness and the epidemiologic criteria for likely exposure to SARS-CoV

IX. Procedure

The procedure/process of the Infectious Disease Program is to ensure that all cases are investigated in the same format.

When a report is received, a member of the ID team will complete an interview of the contact using the CDC SARS Domestic Case Reporting form, which can be found in S:\CSRP\SOGs\SARS.

A. Outbreak Response

- 1. Call ODH ORBIT at 614-995-5599 for guidance

B. Public Health Investigation Process

- 1. ODRS:
 - a. Check to see if the patient is entered into ODRS. If not, enter the patient into ODRS
 - b. Key fields for ODRS reporting include:
 - i. Import status
 - ii. Date of illness onset
 - iii. All fields in the Epidemiology module
- 2. Investigation
 - a. Case investigation should start as soon as possible following notification.
 - b. Contact the patient's provider and/or hospital to obtain demographic information, symptoms, date of onset of symptoms, pertinent test results and travel history or contact with a pneumonia case in the 10 days prior to symptom onset. Contacts of the case shall be determined.
 - c. The epidemiologist, CD nurse and/or Health Commissioner will consult with ODH to determine additional testing that will be necessary and facilitate specimen transfer to ODHL and/or CDC.
 - i. If there are multiple cases, consider terrorist activity.
 - 1) Call JTTF/FBI Immediately if terrorist activity is suspected
 - a) Local FBI Contact: Louie Espinosa—419-779-6600 or lespinosa@fbi.gov
 - d. Once the provider and/or hospital ICP has been contacted call the patient/parent and complete the interview.
 - i. Provide education from the fact sheet on the IDCM website at <http://www.odh.ohio.gov/pdf/IDCM/SARS.pdf>. This information is also located in S:\CSRP\SOGs\SARS.
 - ii. If no one answers, leave a message requesting a call back.

- iii. Mail an informational letter requesting a callback.
 - iv. Continue to attempt phone contact with the patient for three more times in the span of 48 hours after the informational letter was sent.
 - v. After interview is completed, ask the patient/parent whether they would like more information. If they express an interest, ask what the best method to deliver the information would be (e.g. e-mail, mail, etc.)
 - vi. Once information is obtained about case, inform the following agencies, as SARS is a select agent reportable under 7CFR Part 331, 9 CFR Part 121, and 42 CFR Part 73:
 - 1) Local FBI Contact: Louie Espinosa—419-779-6600 or lespinosa@fbi.gov
3. Treatment
- a. No specific treatment recommendations can be made at this time.
 - b. Empiric therapy should include coverage for organisms associated with any community-acquired pneumonia of unclear etiology.
 - c. Infectious disease consultation is recommended.
4. Isolation/Follow Up Specimens
- a. Ohio Administrative Code (OAC) 3701-3-13 (V) states: “a person with confirmed or suspected SARS shall be placed in airborne isolation until no longer considered infectious.”
 - b. Clinicians who are evaluating suspected cases should use standard precautions together with airborne precautions (e.g. N-95 respirator) and contact precautions (e.g. gloves, gowns). Eye protection should also be worn for all patient contact until the mode of transmission has been defined.
5. Prophylaxis
- a. Not applicable.
6. Contacts (Exclusion)
- a. ODH recommends isolation for all persons known or suspected as having SARS and persons exhibiting symptoms of respiratory illness clinically consistent with SARS who have also been identified as having close contact to a known or suspect SARS case.
 - b. Exposed persons should notify their healthcare provider immediately if fever or respiratory symptoms develop.
 - c. Exposed persons should also notify their healthcare provider when they will be arriving at the healthcare facility for evaluation so that arrangements can be made to prevent any possible transmission of SARS to individuals in the healthcare setting.
 - d. For the infection control precautions that symptomatic persons exposed to SARS should be taking, please look examine the IDCM for SARS at: <http://www.odh.ohio.gov/PDF/IDCM/sars.pdf>
7. Notification
- a. Notify TLCHD contacts immediately after investigation with patient (in sequential order)
 - i. Supervisor of Epidemiology
 - ii. Director of Community Services and Environmental Health
 - iii. Medical Director
 - iv. Health Commissioner

- b. Public health recommendations and interventions will be shared with the public by the PIO or to specific individuals within 6 hours of identification of the agent as determined by ODH and supervisory staff at the local health department. An OPHCS alert will be distributed within 12 hours of a positive test result as determined by supervisory local health department staff and ODH.
8. Documentation
- a. Enter information into ODRS as it is obtained.
 - b. Include a note documenting investigation, education, and intervention.
 - Sample: Spoke with mother by phone on [date]. EDUCATION: Reviewed disease facts, transmission, and symptoms. DISEASE COURSE: Client has history of [medical conditions] and started [symptoms] on [date]. Started [treatment] on [date]. HOUSEHOLD: HH contacts include [relationships]. All are [asymptomatic/symptomatic] [Include information about sensitive settings for HH contacts]. OCCUPATION: [job] TRAVEL HISTORY: [Include information about travel history within the past 2-3 weeks]. MAILING: Mailed fact sheet and cover letter to home address.*
 - i. Include a note for each occupation, activity, or other notification and any actions taken.
9. Closing a case
- a. Ensure that all available information is entered into ODRS before closing. Close case and print record. Staple with investigation sheet and any related documents and file in the appropriate file drawer for the current year located in the CSRP office.

X. Appendices

None

XI. Reference/Investigation Forms

- A. SARS Disease Factsheet is located in S:\CSRP\SOGs\SARS.
- B. For additional information please refer to the ODH IDCM at <http://www.odh.ohio.gov/pdf/IDCM/SARS.pdf>

XII. Maintenance

A. Review

1. The Infectious Disease standard operating procedures are to be reviewed every other year or as needed to ensure compliance with both agency and accreditation standards.
2. If guidance/recommendations from the Centers for Disease Control, Ohio Department of Health or law changes regarding this infectious disease, TLCHD will follow the most up-to-date guidance and adjust the SOP(s) as needed.

B. Revision

1. All changes made to this SOP are to be noted on the **Record of Change**. Substantial changes will require renewed signatures from all applicable parties. This includes changes to the intent, scope, procedures, or policy statement.
2. Changes in style, format, grammar or minor error correction will not require renewed signatures but must be indicated on the Record of Change.

Record of Change
(Required for all procedures)

Date of Change	Changes Made By	Changes Made/Notes	Approved By