



OUTBREAK REPORT OF SUSPECTED VIRAL GASTROENTERITIS

(Outbreaks of viral gastroenteritis are usually caused by norovirus or sapovirus which collectively are referred to as caliciviruses)

FOR OFFICIAL USE ONLY

Calicivirus Laboratory
DASH Unit 75
Centers for Disease Control and Prevention
1600 Clifton Road, N.E., Mailstop G-04
Atlanta, GA 30333

Telephone (404) 639-1923
or (404) 639-3577
Facsimile (404) 639-3645

Primary contact for epidemiologic investigation

Date _____
mm dd yyyy

Name _____

Telephone _____

Agency _____

Facsimile _____

Address _____

Email _____

State Outbreak Identification Number _____

EFORS state code _____

Outbreak Information

Date of first case _____ / _____ / _____
mm dd yyyy

Date health department notified _____ / _____ / _____
mm dd yyyy

Date of last case _____ / _____ / _____
mm dd yyyy

Outbreak ongoing? Yes No

Location(s) of outbreak City _____

County _____

If multistate, list other States _____

County _____

Institution or event (if applicable) _____
[e.g., nursing home, restaurant, bus tour, wedding, catered meal]

Date of event _____ / _____ / _____
mm dd yyyy

Institution or event contact person _____

Telephone _____

Illness Characteristics

Number of persons ill _____ Number of persons susceptible _____ Duration of illness (mean/median and range) _____
Incubation of illness (mean/median and range) _____

Predominant symptoms (frequencies if available) _____

Number of persons who sought medical care _____ Number of persons admitted to a hospital _____
(e.g., emergency room, doctor's office, medical clinic)

Suspected source(s) of exposure _____
e.g., water, specific food(s), ice, person, object]

Public reporting burden of this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC, Reports Clearance Officer, 1600 Clifton Rd., MS D-74, Atlanta, GA 30333, ATTN: PRA (0920-0004).

Specimen Collection

Contact person for specimen collection and handling _____

Telephone _____ Facsimile _____

Number of stool specimens collected _____ Number of vomitus specimens collected _____

Tested for bacteria? Yes No Results (if known) _____

Tested for ova and parasites? Yes No Results (if known) _____

Stool and vomitus specimens collected from ill persons should be stored in watertight containers (e.g., urine specimen cups) and refrigerated (not frozen), and shipped on ice, accompanied by CDC form 50.34.

Number of acute serum specimens collected from: ill persons _____ control persons _____

Anticipated date for collection of convalescent sera _____
mm dd yyyy

Matching acute and convalescent serologic specimens should be stored and shipped frozen in plastic (transportable) aliquot tubes, accompanied by CDC form 50.34. Acute sera should be collected within 7 days of onset of symptoms and convalescent sera should be collected 3 weeks after the collection of acute sera.

Date specimens shipped to CDC mm / dd / yyyy Specimen type _____

Date specimens shipped to CDC mm / dd / yyyy Specimen type _____

Date specimens shipped to CDC mm / dd / yyyy Specimen type _____

Tracking Number (FedEx, UPS, USPS, etc) _____

Unique ID	Specimen Type ¹	Date of Collection	Additional information

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RECOMMENDATIONS FOR SPECIMEN COLLECTION FOR NOROVIRUSES DIAGNOSIS

Clinical Specimens

Stool

Timing. Specimen collection for viral testing should begin on day 1 of the epidemiologic investigation. Any delays to await testing results for bacterial or parasitic agents could preclude establishing a viral diagnosis. Ideally, specimens should be obtained during the acute phase of illness (i.e., within 48--72 hours after onset) while the stools are still liquid or semisolid because the level of viral excretion is greatest then. With the development of sensitive molecular assays, the ability to detect viruses in specimens collected later in the illness has been improved. In specific cases, specimens might be collected later during the illness (i.e., 7--10 days after onset), if the testing is necessary for either determining the etiology of the outbreak or for epidemiologic purposes (e.g., a specimen obtained from an ill foodhandler who might be the source of infection). If specimens are collected late in the illness, the utility of viral diagnosis and interpretation of the results should be discussed with laboratory personnel before tests are conducted.

Number and Quantity. Ideally, specimens from ≥ 10 ill persons should be obtained during the acute phase of illness. Bulk samples (i.e., 10--50 ml of stool placed in a stool cup or urine container) are preferred, as are acute diarrhea specimens that are loose enough to assume the shape of their containers. Serial specimens from persons with acute, frequent, high-volume diarrhea are useful as reference material for the development of assays. The smaller the specimen and the more formed the stool, the lower the diagnostic yield. Rectal swabs are of limited or no value because they contain insufficient quantity of nucleic acid for amplification.

Storage and Transport. Because freezing can destroy the characteristic viral morphology that permits a diagnosis by EM, specimens should be kept refrigerated at 4°C. At this temperature, specimens can be stored without compromising diagnostic yield for 2--3 weeks, during which time testing for other pathogens can be completed. If the specimens have to be transported to a laboratory for testing, they should be bagged and sealed and kept on ice or frozen refrigerant packs in an insulated, waterproof container. If facilities for testing specimens within 2--3 weeks are not available, specimens can be frozen for antigen or PCR testing.

Vomitus

Vomiting is the predominant symptom among children, and specimens of vomitus can be collected to supplement the diagnostic yield from stool specimens during an investigation. Recommendations for collection, storage, and shipment of vomitus specimens are the same as those for stool specimens.

Serum

Timing. If feasible, acute- and convalescent-phase serum specimens should be obtained to test for a diagnostic ≥ 4 -fold rise in IgG titer to noroviruses. Acute-phase specimens should be obtained during the first 5 days of symptoms, and the convalescent-phase specimen should be collected from the third to sixth week after resolution of symptoms.

Number and Quantity. Ideally, 10 pairs of specimens from ill persons (i.e., the same persons submitting stool specimens) and 10 pairs from well persons (controls) should be obtained. Adults should provide 5--7 ml of blood, and children should provide 3--4 ml.

Storage. Specimens should be collected in tubes containing no anticoagulant, and the sera should be spun off and frozen. If a centrifuge is not available, a clot should be allowed to form, and the serum should be decanted and frozen. If this step cannot be accomplished, the whole blood should be refrigerated but not frozen.

Environmental Specimens

Noroviruses cannot be detected routinely in water, food, or environmental specimens. Nevertheless, during recent outbreaks (33--36), noroviruses have been detected successfully in vehicles epidemiologically implicated as the source of infection. If a food or water item is strongly suspected as the source of an outbreak, then a sample should be obtained as early as possible and stored at 4 C. If the epidemiologic investigation confirms the link, a laboratory with the capacity to test these specimens should be contacted for further testing. If drinking water is suspected, special filtration (45) of large volumes (i.e., 5--100 liters) of water can concentrate virus to facilitate its detection.