



OB \_\_\_\_\_  
CDC Use Only

### REPORT OF OUTBREAK OF SUSPECTED VIRAL GASTROENTERITIS

Viral Gastroenteritis Section  
DASH Unit 75  
Centers for Disease Control and Prevention  
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Atlanta, GA 30333

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#### Primary contact for epidemiologic investigation

Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
mm dd yyyy

Name \_\_\_\_\_ Telephone \_\_\_\_\_  
Agency \_\_\_\_\_ Facsimile \_\_\_\_\_  
Address \_\_\_\_\_ E-mail \_\_\_\_\_  
\_\_\_\_\_

#### Outbreak Information

State Outbreak ID \_\_\_\_\_ EFORS code \_\_\_\_\_ Date health department notified \_\_\_\_/\_\_\_\_/\_\_\_\_  
(if known) mm dd yyyy

Date of first case \_\_\_\_/\_\_\_\_/\_\_\_\_ Date of last case \_\_\_\_/\_\_\_\_/\_\_\_\_  
mm dd yyyy mm dd yyyy

Location(s) of outbreak: State \_\_\_\_ City \_\_\_\_\_ County (list if several) \_\_\_\_\_  
If multistate, list other states \_\_\_\_\_

#### Suspected mode of transmission (can check more than one)

- Person-to-person  Foodborne  Waterborne  
 Unknown  Other \_\_\_\_\_

#### If food or waterborne

Implicated food or water source \_\_\_\_\_ Foodhandler implicated? \_\_\_\_\_  
(can check more than one) Yes: epidemiologic evidence  
Yes: laboratory evidence  
Yes: suspected, but no evidence  
No

#### Setting

Nursing home Assisted Living Restaurant / Deli / Cafeteria Hotel School Daycare Camp  
Community Prison Ship Religious Facility Hospital Private event Catered Event  
Work Place Private Home Other \_\_\_\_\_ Date of event (if applicable) \_\_\_\_/\_\_\_\_/\_\_\_\_  
mm dd yyyy

#### Illness Characteristics

Number of persons exposed \_\_\_\_\_ Number of persons ill \_\_\_\_\_  
*Number visiting health care provider \_\_\_\_\_ Number hospitalized \_\_\_\_\_ Number deaths \_\_\_\_\_*  
(Categories NOT mutually exclusive)

Symptoms: Number of persons with information \_\_\_\_\_ Median incubation period (hours) \_\_\_\_ range \_\_\_\_  
No. with abdominal cramps \_\_\_\_ No. with fever \_\_\_\_  
No. with diarrhea \_\_\_\_ No. with vomiting \_\_\_\_ Median duration of illness (hours) \_\_\_\_ range \_\_\_\_  
No. with other symptom(s) \_\_\_\_\_

Comments \_\_\_\_\_  
\_\_\_\_\_

## Part II

### Specimen Collection

Contact person for specimen handling \_\_\_\_\_

Telephone \_\_\_\_\_ Facsimile \_\_\_\_\_ E-Mail \_\_\_\_\_

Number of stool specimens submitted \_\_\_\_\_ Number of vomitus specimens submitted \_\_\_\_\_

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., stool collection cups) and refrigerated (**not** frozen), and shipped on frozen refrigerant packs (**not** on wet ice) accompanied by CDC form 50.34 (DASH Form).

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 (DASH Form). 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.

Other specimens collected? Yes No Type \_\_\_\_\_ Date Collected \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
mm dd yyyy

Date specimens shipped to CDC \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Specimen type \_\_\_\_\_  
mm dd yyyy

Date specimens shipped to CDC \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Specimen type \_\_\_\_\_  
mm dd yyyy

Tracking Number (FedEx, UPS, USPS, etc): \_\_\_\_\_

#### **List of unique identifiers and specimen type for samples submitted to CDC for testing**

Unique ID	Specimen Type <sup>1</sup>	Date of Collection (mm/dd/yyyy)	Additional Information <sup>2</sup>

<sup>1</sup>e.g. Bulk stool, vomitus, serum, rectal swab, environmental specimen

<sup>2</sup>e.g. Foodhandler / ship crew

**THANK YOU**

## RECOMMENDATIONS REGARDING SPECIMEN COLLECTION FOR DIAGNOSIS OF NLVs\*

### 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  $\geq 10$  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  $\geq 4$ -fold rise in IgG titer to NLVs. 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**

NLVs cannot be detected routinely in water, food, or environmental specimens. Nevertheless, during recent outbreaks (33--36), NLVs 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.