

Attachment A

Guidelines for Collecting Specimens for Viral Diagnosis

Stool

- ⊖ **Collection in the first 48-72 hours.** Presently, viral diagnosis of a stool sample can be made only when the level of excretion is approximately 1 million particles/ml. For many viruses, this level of excretion is present only during the first 2 days of illness, and occasionally during the third. If specimens are not collected during the first 2-3 days of illness, an agent is unlikely to be detected. Thus, appropriate specimens should be collected as soon as an outbreak occurs, preferably on day 1 of the epidemiologic investigation. **Specimen collection should not await the results of epidemiologic and other investigations, since delay will almost certainly preclude a viral diagnosis.** If information gathered subsequently indicates that a viral etiology is unlikely, the specimens can be discarded before the cost of testing is incurred.
- ⊖ **Minimum of three diarrheal bulk specimens.** Bulk samples (enough to fill a large stool cup, approximately 10-50 ml of stool) are preferred, and only those specimens loose enough to assume the shape of their containers are likely to yield positive results. Serial specimens from persons with acute, frequent, high-volume diarrhea are particularly useful. The smaller the specimen and the more formed the stool, the lower the diagnostic yield. Rectal swabs are of little or no value. CDC recommends specimens from at least 10 ill persons should be collected to maximize the chance that a diagnosis can be made. The DHMH Laboratories Administration requires a **minimum of three stools** to perform NLV analysis, but more specimens will be accepted (please contact the Division of Outbreak for more specific guidance regarding the recommended maximum number of stools that should be collected for a particular outbreak investigation) .
- ⊖ **Storage at +4 C.** Because freezing may destroy the characteristic viral morphology that permits a diagnosis by electron microscopy, specimens should be kept at +4 C. Stools can be stored for 2-3 weeks at this temperature without compromising diagnostic yield.

Other Specimens

Viruses causing gastroenteritis cannot routinely be detected in vomitus, water, food, or environmental samples. Recent outbreaks have documented the successful detection of NLVs from environmental samples. 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.

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