

GUIDELINES & PROTOCOLS

ADVISORY COMMITTEE

Investigation of Suspected Infectious Diarrhea

Reviewed 2003

Scope

This guideline applies to adults (19 years or older) with diarrhea where infectious causes are suspected. For the purposes of this guideline, diarrhea is classified as mild (no change in normal activities), moderate (forced change in activities), and severe (general disability).

RECOMMENDATION 1: Mild to moderate diarrhea

Most cases of mild to moderate diarrhea are self-limited, of short duration and do not require laboratory investigations. One stool for culture and sensitivity and one stool for ova and parasites may be appropriate if symptoms persist for longer than seven days (see Recommendation 5).

RECOMMENDATION 2: Severe diarrhea

Two sequential stools for culture and sensitivity are appropriate if the patient has fever greater than 38.5 °C, mucousy/bloody stools, hypotension, dehydration, or severe abdominal pain.

RECOMMENDATION 3: Special circumstances

One stool for culture and sensitivity and one stool for ova and parasites are appropriate if the patient has diarrhea and:

- has been exposed to untreated or potentially contaminated water, locally or abroad
- has potentially been exposed to fecal organisms (e.g., anal sex, care of the incontinent)
- has been in a developing country.

Two sequential stools for culture and sensitivity and two sequential stools for ova and parasites are appropriate if the patient is immunocompromised.

One stool for *Clostridium difficile* may be appropriate if the patient has recently had antibiotics, chemotherapy or *C. difficile* infection.

RECOMMENDATION 4: Public health concerns

One stool for culture and sensitivity and one stool for ova and parasites are appropriate if the principal reason for investigation is a public health concern such as:

- the patient's occupation (e.g., food handler, daycare worker or direct patient care worker)
- when food or water at a public food service facility has been identified as a risk factor
- the patient may be part of a suspected or recognized community outbreak

Note: Public Health should be notified.

One stool sample for enteric virus is appropriate if the patient resides or works in a continuing care facility where an outbreak of diarrhea has occurred.

RECOMMENDATION 5: Additional samples

Additional stool samples may be appropriate in the presence of severe illness, if the patient is immunocompromised, or if symptoms persist or recur and other causes cannot be found.

Rationale

Most patients with mild or moderate diarrhea require only symptomatic treatment. Investigations prior to several consecutive days of loose stools are unlikely to impact management. Physicians should critically evaluate each clinical situation to determine if a test result will alter their patient management.

A test of one stool sample will identify 80-90 per cent of patients who are infected. Therefore, this guideline discourages the routine ordering of 'stools X3', and recommends that one sample be ordered initially. Additional samples should be considered if the test result of the first sample is negative, symptoms persist and other causes cannot be found.

In high risk situations or in severe diarrheal illness, early laboratory investigation may be important in determining the appropriate antimicrobial therapy. Stool samples should be collected prior to treatment. The likelihood of finding parasites in patients with severe diarrhea, but without risk factors, is low.

Patients should be advised that different containers are required for culture and sensitivity, ova and parasites, and *Clostridium difficile* as submission of a specimen in the wrong container will result in incomplete laboratory investigations. Patients should also be advised not to submit a sample if their stools have returned to normal.

Contaminated water is a problem in developing countries; it is also important to appreciate that a proportion of British Columbia's drinking water is untreated surface water. Diarrheal outbreaks associated with *Cryptosporidium parvum* and *Giardia lamblia* in British Columbia are well documented.

C. difficile infection is not uncommon after antibiotics or chemotherapy and may recur following treatment. Recurrent *C. difficile* infection may require reinvestigation and treatment. However, repeat testing of asymptomatic patients is not indicated.

Many individuals carry non-toxigenic forms of *C. difficile* and therefore a positive culture is not diagnostic. *C. difficile* is most commonly diagnosed by testing the stool for the presence of toxin. However, some laboratories also culture for *C. difficile* and then test the culture for toxin if the initial toxin test is negative.

Individual patients involved in outbreaks of infectious diarrhea are often geographically widespread, making detection difficult for individual clinicians. Prompt investigations and notification to Public Health can lead to rapid containment of common source outbreaks.

Hand washing is the most effective way to prevent the person-to-person spread of diarrheal illnesses.

References

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Sponsors

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