

ENTERIC DISEASES SURVEILLANCE PROTOCOL FOR ONTARIO HOSPITALS

Developed by the Ontario Hospital Association and the
Ontario Medical Association
Joint Communicable Diseases Surveillance Protocols Committee

Approved by:
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This Protocol was developed jointly by the Ontario Medical Association and the Ontario Hospital Association to meet the requirements of the *Public Hospitals Act 1990*, Revised Statutes of Ontario, Regulation 965.

This Protocol has undergone minimal revision from the previous version including the addition of current references (all of which are highlighted in yellow online – for easy identification). The Protocol is directed at all persons carrying out activities in the hospital, both employees and others. The Protocol is based on the principle of restricting persons in their activities based on symptoms, rather than emphasizing stool examination results or continuing surveillance. This reflects current clinical knowledge, data and experience, and a desire to ensure maximum cost effectiveness of programs, while at the same time protecting health care workers and patients. It is intended as a minimum standard that is practical to apply in most Ontario hospital settings. It does not preclude hospitals adopting additional strategies that may be indicated by local conditions.

Members of the Joint OHA/OMA Communicable Disease Surveillance Protocols Committee

MEMBERS

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Medical Director, Infection
Prevention & Control
Sunnybrook Health Sciences Centre
Toronto, Ontario

Dr. Kathryn Suh
Associate Director, Infection Prevention and
Control Program
The Ottawa Hospital
Ottawa, Ontario

Inez Landry
Director Infection Control,
Occupational Health & Safety
Queensway Carleton Hospital, Ottawa

Representing the Ontario Medical Association

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Occupational Health Physician
St. Joseph's Healthcare
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Ontario Medical Association

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Communicable Disease Control
Toronto Public Health

Representing the Ministry of Health and Long-Term Care

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Public Health Protection and Prevention Branch
Public Health Division
Ministry of Health and Long-Term Care

Ontario Occupational Health Nurses

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Corporate Health and Safety Services
St. Michael's Hospital

Infection Control Ontario

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Providence Care

Ontario Hospital Association

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EX-OFFICIO

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Public Services Health & Safety Association

Rationale for Enteric Diseases Surveillance Protocol

Health care workers (HCWs) infected with enteric pathogens should be excluded from working with food or patients when they have symptoms, i.e. vomiting and/or diarrhea. Although outbreaks related to possible transmission from an asymptomatic food handler have been described, these are rare in the health care setting. Similarly, there is little evidence that asymptomatic personnel excreting *Salmonella* transmit infection to patients, with the possible exception of newborn infants, for whom a very low inoculum may be infectious, and the risk of extra-intestinal disease is high.

Asymptomatic carriers of most enteric pathogens in the bowel do not pass these organisms on if they wash their hands after using the bathroom. In studies assessing the potential for transmission of infection from asymptomatic excretors by culturing swabs from hands after a bowel movement, proper hand washing successfully removed organisms from the hands of all carriers.

Good hygiene is emphasized for all HCWs at all times.

Food handlers or HCWs who do **not** demonstrate proper hygiene should not be allowed to handle food or care for patients, regardless of whether they carry enteric pathogens in the bowel. Hospitals must emphasize good personal hygiene, proper food handling and proper patient care techniques.

Exceptions in the Protocol

This protocol outlines specific responses for *Shigella* infections, Norovirus-like (formerly Norwalk-like) disease, Hepatitis A, *Salmonella typhi* and *Salmonella paratyphi*.

The known infectious dose is much lower for *Shigella sp.* than for the other organisms covered by the protocol, making these organisms more easily transmissible person-to-person.

The exceptions for Norovirus-like disease and Hepatitis A are based on epidemiological evidence of length of carriage and transmissibility.

Salmonella typhi and *paratyphi* (the agents of typhoid fever) are handled differently because the known infectious dose is much lower and the illness more severe than with other *Salmonella* species. Humans are the only host of these organisms. Nevertheless, evidence that these organisms are more likely than other pathogens to be transmitted from asymptomatic carriers in the healthcare setting is limited. Since infection characteristically leads to fever and constipation, rather than diarrhea, transmission is unlikely, even in acute cases.

In a gastrointestinal outbreak situation, the local public health unit must be involved and management of individuals may be different.

This document does not discuss *Clostridium difficile* as it is not an occupational health and safety issue if HCWs consistently use Routine Practices, including hand hygiene, refrain from eating and drinking in patient care areas and use Contact Precautions for patients with *C. difficile* infection. Readers are referred to the Provincial Infectious Disease Advisory Committee (PIDAC) *Best Practices Document for the Management of Clostridium difficile in all health care settings*.

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I. Purpose

The purpose of this protocol is:

- i. to provide direction to hospitals for the management of enteric infections in health care workers (HCWs); and
- ii. to establish a system for the prevention of transmission of enteric pathogens among persons carrying on activities in the hospital and patients.

The responsibility of follow-up care and therapy is that of the individual's attending physician.

II. Applicability

This protocol applies to food handlers (see Glossary) and to other persons carrying on activities in the hospital, including employees, physicians, nurses, contract workers, students, post-graduate medical trainees and volunteers (henceforth known as HCWs in this protocol). This protocol does not apply to patients or residents of the facility or to visitors.

The hospital has a responsibility, when hiring contract workers or training students, to inform the supplying agency/school that the agency/school has the responsibility to ensure that their personnel carrying on activities in the hospital are followed appropriately.

This protocol is for use by the Occupational Health Service (OHS) in hospitals.

III. Pre-placement

There is no need for pre-placement stool screening of any persons carrying on activities in the hospital.

Routine administration of hepatitis A virus vaccine to health care personnel is not required. Consistent use of Routine Practices should eliminate any risk.

HCWs should be educated to not consume food or beverages in patient care areas, as this has been associated with outbreaks of gastrointestinal pathogens (e.g., hepatitis A and norovirus).¹⁹⁻²³

HCWs should be educated to not work with acute gastrointestinal illness of probable infectious etiology.

IV. Continuing Surveillance

There is no need for routine (e.g., annual) stool screening of any persons carrying on activities in the hospital.

V. Acute Gastrointestinal Illness

Gastrointestinal illness of an acute infectious nature may have serious implications for food handlers and HCWs because of the potential for transmission to patients. Therefore, all such persons experiencing vomiting and/or diarrhoea have a responsibility to declare this to the OHS, both when leaving work and prior to returning to work.

Food handlers or HCWs experiencing vomiting and/or diarrhoea of a probably infectious nature should be excluded from work until they have been symptom-free for 24 hours.

The exceptions to this are the circumstances discussed under "Exceptions" below, where a longer exclusion from work may be required.

Return to Work

After symptomatic recovery from a gastrointestinal illness, a food handler or HCW must report to the OHS **prior to return to work**. The OHS should assess and counsel him/her regarding personal hygiene, or may delegate this to others (e.g., supervisor) when appropriate. Return to work is **not** conditional upon submission of stool specimens or results of stool examination (see Glossary), with the exception of HCWs from areas with very high risk patients (i.e., *Salmonella sp.* in nursery personnel). **Return to work is conditional on good personal hygiene.**

In some situations, individuals may be identified as carriers of enteric pathogens (where stools have been submitted for reasons other than return to work criteria). In these cases, known symptom-free carriers of enteric pathogens, including ***Campylobacter sp.*, *Salmonella sp.*** (excluding ***typhi*** and ***paratyphi***), ***E. coli O157:H7*, *E. histolytica*, *Yersinia*** and ***Giardia*** may continue to work **as long as personal hygiene is good.**

Campylobacter sp., *Salmonella sp.*, *Shigella sp.*, *E. coli O157:H7*, *Yersinia*, *E. histolytica*, *Giardia* and hepatitis A are reportable to the Medical Officer of Health. Occupationally acquired infections are reportable to the Ministry of Labour and Workplace Safety and Insurance Board as appropriate.

Exceptions to these recommendations are:

- (a) ***Salmonella typhi and paratyphi***: Carriers of these organisms must be excluded from food handling and patient care activities until the carrier state is eradicated, i.e., until 3 consecutive stool specimens collected at least 1 week apart and at least 24 hours after cessation of symptoms are negative. If treated, specimens must be collected at least 2 weeks after completion of antibiotic treatment.
- (b) ***Hepatitis A***: If symptoms or circumstances are suggestive of Hepatitis A, the food handler or HCW must remain off work until 7 days following onset of jaundice. Hepatitis A virus vaccine should be given for post-exposure prophylaxis of contacts (including other food handlers) as soon as possible and preferably within 7 days of exposure to the case (National Advisory Committee on Immunization, Canadian Immunization Guide 2006). Administration of immune globulin (IG) is recommended for immunocompromised contacts who may not respond fully to the vaccine. Routine care of patients with Hepatitis A does not constitute exposure.
- (c) ***Norovirus (Norwalk-like Disease)***: Persons with symptoms suggestive of Norovirus disease must remain off work until symptom-free for 48 hours. In outbreaks (see Glossary) of Norovirus, patient-staff cohorting should be implemented; persons working in the affected unit should not work in other units or facilities until the outbreak is over.
- (d) ***Shigella***: Persons with symptoms suggestive of ***Shigella*** must submit stool specimens for culture. If ***Shigella*** is cultured, the person must be excluded from food handling and patient care activities until two negative stools have been obtained, 24 hours apart, beginning at least 24 hours after diarrhoea ends. If treated with antibiotics, the first stool must be submitted at least 48 hours after the last dose.
- (e) **OUTBREAKS**: In outbreak situations, the OHS must notify the Medical Officer of Health, and the hospital's Infection Prevention and Control service. Food handlers and epidemiologically-linked patient care workers may be asked to submit stools for examination.

Symptomatic persons must remain off work until at least 24 hours after resolution of symptoms, or as indicated above. Prior to return to work, affected staff must be assessed and instructed in personal hygiene, high-risk food preparation and proper hand hygiene, either by OHS staff or by public health staff.

In outbreak situations, other measures may be dictated by Public Health.

Glossary

1. Food Handler

Food handler is any person involved in the preparation, transport, serving, or handling of food, food supplements, or parenteral nutrition.

2. Outbreak

An excess number of cases, over the expected, that appear to be epidemiologically linked and related to the hospital.

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