#### Chicago Department of Public Health



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Communicable Disease Program



# **Controlling Outbreaks of Viral Gastroenteritis in Congregate Settings**

- Noroviruses are a frequent cause of outbreaks of gastroenteritis.
- They are almost always transmitted from person to person (including residents, staff, visitors and volunteers), and occasionally by contaminated food or drinks.
- Occasionally objects or surfaces contaminated with apparent or inapparent feces or vomitus may be a source of illness.
- These outbreaks may be controlled by taking specific steps to prevent the virus from being transmitted from person to person.
- Early recognition of the typical symptoms (diarrhea and vomiting) is essential for outbreak control.

#### **Resident Floors**

- 1. Each nursing unit should immediately report any resident(s) or staff member(s) with symptoms of viral gastroenteritis to the infection control practitioner or the Director of Nurses. New cases should be recorded daily using a case log.
- 2. Notify the medical director of all new cases.
- 3. Confine symptomatic residents to their rooms.
- 4. Minimize movement of residents. Residents should <u>not</u> be moved from an affected to an unaffected nursing unit, even if they are asymptomatic.
- 5. Maintain the same staff to resident assignments, if possible. Limit staff from moving between affected and unaffected units.
- 6. Dedicate the use of patient-care equipment to a single resident or among similarly symptomatic residents. Disposable equipment would be optimal. If the use of common equipment or items is unavoidable, then adequately clean and disinfect equipment before use for another resident.
- 7. Exclude non-essential personnel from affected units.
- 8. In addition to Standard Precautions, use Contact Precautions when caring for symptomatic residents:
  - a. Wear a gown and gloves when entering the room.
  - b. Remove gloves after contact with the ill resident and <u>before</u> contact with any other resident. Remove gloves before leaving the resident's room and wash hands with soap and water in room immediately. Alternatively, alcohol-based gels can be used when hands are free of debris.
  - c. After glove removal and handwashing, ensure that hands do not touch potentially contaminated environmental surfaces or items in the resident's room. Change gloves if moving from potentially contaminated areas to clean areas.
  - d. Change gowns between contacts with roommates. Remove gown before leaving the resident's environment. After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces.
- Restrict new admissions until the incidence of new cases has reached zero (please consult with health department on this issue). If new admissions are necessary, admit resident to an unaffected unit or to a unit that has had no new cases for at least four days.

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- 10. Cancel or postpone group activities or events such as birthday party celebrations until all ill individuals are asymptomatic for at least 4 days and the outbreak has concluded (no new cases in 4 days).
- 11. Consider use of antiemetics for patients with vomiting.
- 12. Keep records of the number of residents who require hospitalization during the outbreak and outcome of the illness. Although fatalities from Norovirus are rare, keep records of which residents died during the outbreak. Determine if the hospitalization or death was related to complications of gastroenteritis, such as dehydration, or was attributed to underlying disease.
- 13. Symptomatic nursing staff and volunteers should not be allowed to work while diarrhea or vomiting is present and, ideally, should stay home until symptom–free for 48-72 hours.

# Hand Hygiene

- 1. Educate residents, staff and visitors on proper technique and promote handwashing prior to patient contact, snacks and meals.
- 2. Handwashing posters should be prominently posted in the facility.
- 3. Where sinks are available, ensure that supplies for hand washing (i.e., soap, disposable towels) are consistently available.
- 4. Alcohol-based hand rubs (gel or foam) can be used in situations where it is not possible to provide soap and water and should be provided by the facility.

# Food Preparation

- 1. Food handling staff should be especially careful in handwashing and glove use while the outbreak is ongoing because they may start shedding before becoming symptomatic.
- 2. Clean all food preparation surfaces thoroughly with antimicrobial detergent or diluted bleach solution (see below).
- 3. Any symptomatic food handlers must be restricted from the facility until asymptomatic for 48-72 hours.
- 4. Restrict sharing of communal food/snack items and foods brought from home.
- 5. Do not use self-service food bars and do not let residents/staff serve themselves in any manner that might promote direct contact with shared foods.

## Facility Disinfection

- 1. Educate cleaning and laundry staff of the risk of infection while performing their duties and the need for compliance with hand hygiene.
- 2. Use an Environmental Protection Agency-approved disinfectant or a freshly prepared sodium hypochlorite solution (e.g., household chlorine bleach in a minimum concentration of 1000 ppm {generally a dilution 1 part household bleach solution to 50 parts water}) to disinfect surfaces contaminated with feces or vomitus with the proper duration of contact as designated by the manufacturer. Most quaternary ammonium disinfectants do not have significant activity against Noroviruses.
- 3. Clean and disinfect vomit and fecal spillages promptly.
- 4. Increase the frequency of routine ward, bathroom and toilet cleaning. Particular attention should be given to cleaning objects that are frequently handled such as faucet and door handles, and toilet or bath rails. This enhanced cleaning should continue for at least 72 hours after the last documented case.
- 5. Consider the use of respiratory protection for cleaning staff where aerosols may be present following vomiting, or generated by cleaning activity. "Airborne" transmission may be a significant contributor to the number of cases since projectile vomiting can give rise to aerosols. Air currents generated by open windows or air conditioning will disperse aerosols widely. Air currents should be minimized.
- 6. Contaminated bedding and other linens should be placed carefully into laundry bags without generating further aerosols. Minimize the number of staff handling this material. Contaminated pillows should also be laundered unless they have an impermeable cover, in which case they should be disinfected.

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- 7. Noroviruses may remain viable for up to 12 days in carpeting or other environmental surfaces. Clean carpets and soft furnishings with hot water and detergent or steam clean. Dry vacuuming is not recommended because it can re-circulate the viruses.
- 8. Objects that are shared between residents, such as pianos or playing cards, should be cleaned thoroughly and regularly or discarded.
- 9. Any symptomatic cleaning staff should be restricted from the facility until asymptomatic.
- 10. Gloves may be worn at any time, but gloves never replace handwashing. Handwashing must occur after gloves are removed.

### Visitors

- 1. Notify visitors about the existence of an outbreak and what precautionary measures should be followed.
- 2. Visitors to patients with gastrointestinal symptoms must observe contact precautions and enhanced hand hygiene practices.
- 3. Ill visitors should be restricted from the facility.

## Laboratory Testing

- 1. In an outbreak situation, arrangements can be made to have specimens tested for norovirus (PCR) at the IDPH Lab.
- 2. Approval for testing must be obtained from Chicago Department of Public Health.
- 3. Collect whole stools (NOT swabs) from affected residents and staff (especially nursing staff or food handlers). Stools should be collected in clean containers (need not be sterile).
- 4. Specimens should be refrigerated until transported to the IDPH lab.
- 5. Until a diagnosis is established, it is helpful to send some stool specimens for bacterial culture may be sent to your normal laboratory.