Norovirus Outbreaks

Since November 1, 2018, the Nebraska Department of Health and Human Services Office of Epidemiology has received reports of 11 confirmed or suspected norovirus outbreaks among long term care centers, assisted living facilities, childcare centers, and hospitals. These findings conform to the known epidemiology of norovirus, with increased occurrence during the winter months.

Clinical Presentation

Norovirus is the most common cause of acute gastrointestinal disease in the United States. It is very contagious and can be contracted from an infected person, contaminated water or food, or even a contaminated surface.

- **Incubation period:** Approximately 12 to 48 hours (median in outbreaks 33 to 36 hours); can be as short as 12 hours
- **Duration of illness:** Typically 12 to 60 hours
- **Symptoms:** Vomiting, non-bloody diarrhea, abdominal cramps, nausea, low grade fever (if present)
- **Complications:** Dehydration is the most common complication
- **Sequela:** None known

Virus Transmission

Noroviruses are transmitted primarily through the fecal-oral route, either by consumption of contaminated food or water or by direct person-to-person spread. Environmental and fomite contamination may also spread infection. Good evidence exists for transmission due to aerosolization of vomitus with either droplet-contamination of surfaces or direct spread to the hands and mouth of another person.
Prevention

Long term care facilities, assisted living, and nursing homes should confine ill residents to their room until 24 hours after their symptoms resolve to reduce the risk of further spread. If enough residents are ill, group activities might need to be suspended. Excluding ill staff, especially those with patient care and food handling responsibilities, until 48 hours after symptoms resolve will also reduce further spread. Staff who work at multiple healthcare facilities should eliminate or minimize inter-facility movement during the time period that their workplace is experiencing an outbreak. Additionally, enforcing exclusion policies for visitors will help prevent further spread.

Environmental surfaces should be disinfected using a chlorine bleach solution with a concentration of 1000-5000 ppm (5-25 tablespoons of household bleach [5.25%] per gallon of water) or other disinfectants effective against norovirus ([https://www.epa.gov/pesticide-registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus](https://www.epa.gov/pesticide-registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus)).

The following general recommendations from the Centers for Disease Control and Prevention (CDC) can help prevent outbreaks from occurring:

- Practice proper hand hygiene: wash hands carefully with soap and water especially after using the toilet and changing diapers, and always before eating, preparing, or handling food. After throwing up or having diarrhea, immediately clean and disinfect contaminated surfaces. Immediately remove and wash clothes or linens.

- Noroviruses may be present in stool even before onset of symptoms and may persist in stool for 2 weeks or more after symptoms resolve.

- Alcohol-based hand sanitizers may be used in addition to hand washing, but should not be used as a substitute for hand washing with soap and water, as some strains are resistant to sanitizers. Use of alcohol-based hand sanitizer in place of soap and water in nursing homes could increase the risk for the spread of noroviruses.

- Keep sick infants and children out of areas where food is being handled and prepared. Persons with norovirus should avoid food preparation and serving while you are sick and for at least 2 days following resolution of symptoms.

Reporting Norovirus Outbreaks

Any facility with two or more suspected norovirus cases within 72 hours should report the problem to their local health department [Map of local health departments by county](https://www.epa.gov/pesticide-registration/list-g-epa-registered-hospital-disinfectants-effective-against-norovirus). In outbreak settings, up to five specimens may be submitted to the Nebraska Public Health Laboratory for testing at public health expense.