

NOROVIRUSES

Clinical Definition:

Noroviruses, are nonenveloped RNA viruses that cause “stomach flu*” or acute gastroenteritis. The term Norovirus is the official name for this group of viruses but they are also called Norwalk-like viruses (NLVs).



Source of Infection and Transmission:

- ◆ Main source of the virus is in stool and vomit from infected persons.
- ◆ The virus can be spread person-to-person on unwashed hands. The virus can also be spread through contaminated food, water or ice that has been handled by a sick person. Vomiting may spread the virus through the air. The virus can survive on surfaces such as countertops or sink taps for a long time.
- ◆ People can spread Noroviruses while they are symptomatic and up to three to four days after recovery. Some people can be contagious for as long as two weeks after their symptoms resolve. There are many different strains of Norovirus, which makes it difficult for a person’s body to develop long-lasting immunity.

Incubation Period:

- ◆ Incubation period is one to two days.

Symptoms:

The symptoms of Norovirus illness usually include:

- Nausea, vomiting, diarrhea, and some stomach cramping.
- Sometimes people additionally have a low-grade fever, chills, headache, muscle aches, and a general sense of tiredness and feel very sick.
- In most people the illness is self-limiting with symptoms lasting for about 1 or 2 days.
- In general, children experience more vomiting than adults.
- Symptoms generally are self-limiting and last between one to three days. Fluid loss can be a serious problem for the elderly and very young.

*This “stomach flu” is **not** related to the flu (or influenza), which is a respiratory illness caused by influenza virus.

Major Complications:

- ◆ Illness can be severe in infants and elders. Severely dehydrated persons may require hospitalization. Outbreaks in long-term care facilities can be life threatening to the residents.

Diagnosis and Treatment:

- ◆ Healthy people usually recover on their own in about 48 hours. There are no medications available to treat this infection.
- ◆ Supportive treatment includes drinking plenty of fluids to prevent dehydration. Recommend the patient should see their health care provider if vomiting or diarrhea lasts for more than three days, especially in infants and the elderly and if there are signs of dehydration.

Public Health Measures:

- ◆ Noroviruses can easily spread in settings where people are in close contact, including schools, day-care centers, long-term care facilities, health-care facilities and cruise ships.
- ◆ Patients with suspected Norovirus infection should be managed with Standard Precautions with careful attention to hand hygiene practices. However, Contact Precautions should be used when caring for diapered or incontinent persons, during outbreaks in a facility, and when there is the possibility of splashes that might lead to contamination of clothing. Persons cleaning areas heavily contaminated with vomitus or feces should wear surgical masks as well. In an outbreak setting, it may be prudent to place patients with suspected Norovirus in private rooms or to cohort such patients.

People suffering from Norovirus but not requiring hospitalization should:

- Stay home while ill.
- Wash hands frequently, especially after using the bathroom or changing diapers and before eating or preparing food.
- ◆ Thoroughly clean floors, counters, and objects contaminated with feces or vomit by first removing with a paper towel and throwing in the garbage, then clean with household cleaner and disinfect with diluted bleach (4 teaspoons of bleach in a litre of water). Wash hands after cleaning/disinfecting area.
- ◆ Since Norovirus can be shed for weeks after symptoms resolve, it is important that people continue to wash their hands carefully even after they have recovered.

Facilities suffering from Norovirus should:

- ◆ Report suspected outbreaks in facilities, defined as 3-4 suspect cases of gastroenteritis occurring within a 4-day period. Outbreak control measures such as isolating those symptomatic, practicing contact precautions and restricting visitation can be initiated while investigation is activated.
- ◆ As well as, restricted visitations and possibly postponing elective services in healthcare facilities, extra hand washing precautions would be instituted, such as washing hands upon entry and exit to the facility.

Reporting and Follow-Up:

- ◆ Any suspected or confirmed outbreaks should be reported to the Office of the Chief Medical Health Officer (OCMHO). Suspected outbreaks in facilities should be reported immediately to the OCMHO.
- ◆ Complete *Communicable Disease Report Form*.

Public Education: (Key Messages)

- ◆ Review steps of proper hand washing procedure with patient and household members.
- ◆ Review cleaning/disinfection of contaminated areas and bedding with patient/family.
- ◆ Provide information on safe food handling for the patient/family.