

Long-term Care Facility Norovirus Packet



Background

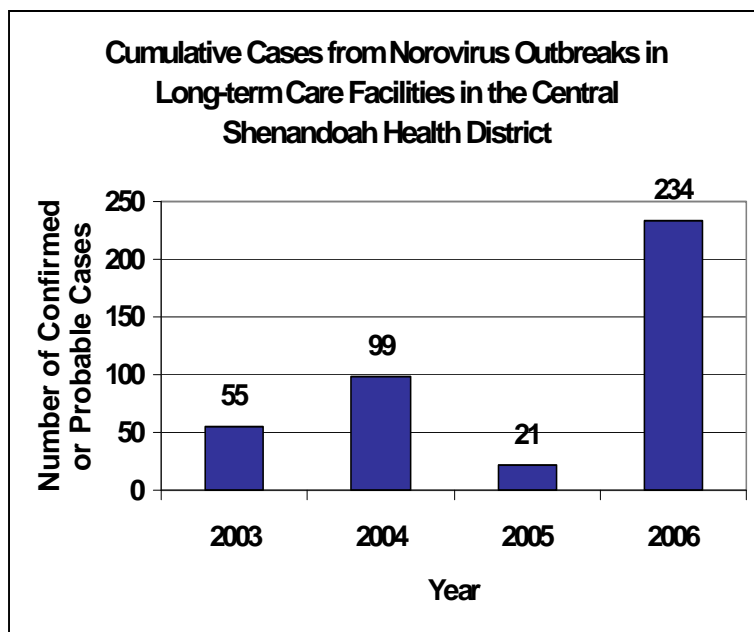
Every year, nursing homes across the state experience outbreaks of viral gastroenteritis. Viral gastroenteritis is an infection caused by a variety of viruses (e.g., norovirus) that result in vomiting and/or diarrhea. It is often called the “stomach flu,” although it is not caused by the influenza (flu) virus.

During an outbreak many residents become ill; some may require outpatient treatment or hospitalization for dehydration. Occasionally a patient may die from this disease. In addition, many staff become ill and must stay home, seriously affecting the facility’s ability to maintain a high level of patient care. A facility may have to stop accepting new admissions until the outbreak subsides.

Outbreaks of norovirus illness can be due to a food vehicle, but more commonly the virus is transmitted person-to-person. Norovirus outbreaks are the most common healthcare-associated outbreak reported to the Office of Epidemiology.

Clinical Manifestations

The average incubation period for norovirus-associated gastroenteritis is 12 to 48 hours, with a median of approximately 33 hours. Illness is characterized by acute-onset vomiting; watery, non-bloody diarrhea with abdominal cramps, and nausea. In addition, myalgia, malaise, and headache are commonly reported. Low-grade fever is present in about half of cases. Dehydration is the most common complication and may require intravenous replacement fluids. Symptoms usually last 24 to 60 hours. Volunteer studies suggest that up to 30% of infections may be asymptomatic.



Epidemiology of Transmission

Noroviruses are highly contagious, with as few as 100 virus particles thought to be sufficient to cause infection. Noroviruses are transmitted primarily through the fecal-oral route, either by direct person-to-person spread or fecally contaminated food or water. Noroviruses can also spread via a droplet route from vomitus. These viruses are relatively stable in the environment and can survive freezing and heating to 60°C (140°F). In healthcare facilities, transmission can additionally occur through hand transfer of the virus to the oral mucosa via contact with materials, fomites, and environmental surfaces that have been contaminated with either feces or vomitus.

Norovirus Fact Sheet

What are noroviruses?

Norovirus is a virus that causes viral gastroenteritis or vomiting and diarrhea, in people.

What are the symptoms of illness caused by noroviruses?

Norovirus illness usually begins 24 - 48 hours after exposure, but can appear as early as 10 hours after exposure. Symptoms usually include nausea, vomiting, diarrhea, and stomach cramping. Sometimes people have a low-grade fever, chills, headache, muscle aches, and a general sense of tiredness. The illness is usually brief, with symptoms lasting only 1 or 2 days.

How serious is norovirus disease?

Norovirus disease is usually not serious, but people may feel very sick. Most people get better within 1 or 2 days, and have no long-term health effects from the illness. Sometimes people are unable to drink enough liquids to replace what they lose from vomiting and diarrhea, and they can become dehydrated and need to see a doctor. This problem usually occurs only among the very young, the elderly, and persons with weakened immune systems.

How is norovirus spread?

Noroviruses are very contagious and spread easily from person to person. The virus is found in the stool and vomit of infected people. People can become infected in several ways, including eating food or drinking liquids that are contaminated by infected food handlers, touching surfaces or objects contaminated with norovirus and then touching their mouth before handwashing, or having direct contact with another person who is infected and then touching their mouth before handwashing. Outbreaks also have occurred from eating undercooked oysters harvested from contaminated waters - cooking kills the virus. Drinking water contaminated by sewage can also be a source of these viruses. Persons working in day-care centers or nursing homes should pay special attention to children or residents who have norovirus illness. This virus can spread quickly in these places.

How long are people contagious?

People infected with norovirus are contagious from the moment they begin feeling ill to at least 3 days after recovery. Some people may be contagious for as long as 2 weeks after recovery. Therefore, good handwashing is important. Persons infected with norovirus should not prepare food while they have symptoms and for 3 days after they recover. Infected people do not become long-term carriers of norovirus.

What treatment is available for people with norovirus infection?

Currently, there is no specific medication or vaccine for norovirus. Norovirus infection cannot be treated with antibiotics. By drinking fluids, such as juice or water, people can reduce their chance of becoming dehydrated. Sports drinks do not replace the nutrients and minerals lost during this illness.

Do infected people need to be excluded from school, work or daycare?

Since the virus is passed in vomit and stool, children should not go to daycare or school while they have diarrhea or vomiting. Once illness ends, children can return to daycare, but handwashing must be strictly monitored. **Persons who work in nursing homes, take care of patients, or handle food should stay out of work until at least three days after symptoms end.**

Guidelines for the Control of Viral Gastroenteritis Illness

1. Isolate ill residents from others by confining them to their rooms (until three days after their last symptoms). Group ill people together if possible. Discontinue activities where ill and well residents would be together. Asymptomatic individuals, especially those with cognitive impairment or those who might not reliably report illness or tend to their hygiene, may also need to be confined to their rooms to control the spread of illness. In some situations, confinement of all individuals may be necessary if other control measures have not been or may not be effective.
2. Ill staff should remain out of work for three days following *cessation* of diarrhea and/or vomiting.
3. Minimize the flow of staff between sick and well residents. Staff should be assigned to work with either well residents or sick residents. If this is not feasible it is recommended that staff be assigned to work with well residents first and sick residents second to minimize transmission between the two groups.
4. Staff should wash their hands when entering and leaving every resident room.
5. Staff should wear gloves and gowns when caring for ill residents or when touching potentially contaminated surfaces. Masks should be worn when caring for residents who are vomiting. Change gowns, gloves, and masks between contacts with roommates. Gloves should be discarded and hands washed immediately after completing patient care. Remove gowns before leaving the resident's environment. Housekeeping staff should wear gloves and masks when cleaning contaminated or potentially contaminated surfaces or laundry.
6. Use a disinfectant to frequently clean all heavy hand contact surfaces. Restroom surfaces, such as faucet handles, soap dispensers, stall doors and latches, toilet seats and handles, and towel dispensers are heavily contaminated surfaces and require frequent disinfection.

The CDC recommends either chlorine bleach or U.S. Environmental Protection Agency (EPA) approved disinfectants for use in controlling norovirus outbreaks. Chlorine bleach should be applied to hard, non-porous, environmental surfaces at a minimum concentration of 1000 ppm (generally a dilution 1 part household bleach solution to 50 parts water). Healthcare facility staff should use appropriate PPE (e.g. gloves and goggles) when working with bleach. In areas with high levels of soiling and resistant surfaces, up to 5000 ppm chlorine bleach may be used. [The EPA list of approved disinfectants against norovirus can be found here.](#)

7. Cleaning procedures that increase the aerosolization of norovirus should not be utilized, such as dry vacuuming carpets or buffing hard surface floors. Cleaning with detergent and hot water, followed by disinfection with hypochlorite (if a bleach-resistant surface) or steam cleaned (5-minute contact time at a minimum temperature of 170°F).
8. Contaminated linen and bed curtains should be carefully placed into laundry bags (to prevent generating aerosols) and washed separately in hot water for a complete wash cycle – ideally as a half load for best dilution.
9. Air currents generated by open windows, fans, or air conditioning will disperse aerosols widely. Air currents should be minimized.
10. It may be prudent to discontinue new admissions and/or visitation to the nursing home until the outbreak is over. If visitation is allowed, visitors should go directly to the person they are visiting and not spend time with anyone else. They should wash their hands upon entering and leaving the room. They should not visit if they are sick.

Health Department Reporting Information

Facility Contact Name:

Today's Date: ____ / ____ / ____

Facility Contact Number:

Facility Name/Location: _____

Facility Type: Nursing home, Assisted living, other, specify: _____

Date of first case: ____ / ____ / ____

Was food-worker implicated as the source of contamination? Yes No

Number of residents ill: _____ Total number of residents of the facility: _____

Number of staff ill: _____ Total number of staff employed by facility: _____

Predominant symptoms:

Average duration of illness (specify hours or days): _____

Number of residents admitted to a hospital: _____ Number of residents who died: _____

Public Health Interventions (check all that apply):

- Restriction of visitors
- Served meals in rooms only
- Excluded ill staff from work
- Cohorted staff to work with ill or well
- Implemented environmental cleaning
- Isolated/cohorted residents
- Emphasized hand hygiene
- Closed to new admissions
- Discontinued group activities (Specify dates of closure: _____)

This document has been compiled by the Central Shenandoah Health Department as a tool to assist long-term care facilities in the detection, surveillance, and intervention of norovirus outbreaks.



ATTENTION VISITORS!!!

We presently have a number of ill residents. Please wash your hands before visiting and before leaving. You may wish to reconsider visiting at this time.

If you have any questions please contact either the Administrator _____ or the Director of Nursing _____.

Thank you



Hand washing is the single most important practice to prevent the spread of outbreaks!

HANDS MUST BE WASHED:

- Whenever they are visibly soiled or there has been contact with stool.
- Between contact with different residents.
- Before putting on gloves *and* after removing gloves.
- After using the toilet.
- Before eating or smoking.
- Before handling or preparing food.

A PROPER HAND WASH INCLUDES:

- Using warm running water and soap with plenty of friction for 30 seconds.
- Using a clean paper towel to dry your hands and to turn off the tap.

Use of a waterless hand sanitizer may be substituted for handwashing if adequate sink facilities are not immediately accessible and hands are not visibly soiled.