



## **Prevention and Control of Viral Gastroenteritis Outbreaks in Long-Term Care Facilities**

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Outbreaks of gastroenteritis are reported to Lewis and Clark City-County Health Department for disease control and prevention. The most common causes of these outbreaks are Noroviruses. A fact sheet is available at the end of this document.

### **REPORTING**

State and county regulations require the *immediate reporting of diarrheal and gastroenteritis outbreaks* to local health authorities. Local health authorities can assist with the investigation and control of these events and link you with state resources that can provide access to testing and related services.

If an outbreak is suspected at a facility:

- Notify the infection control practitioner of the facility.
- Notify the Medical Director of the facility.
- Notify the local health agency to report the outbreak. Call the Health Department at 443-2584

### **Infection Control**

**Viral Gastrointestinal Outbreak Control:** In a semi-closed environment, such as a nursing home, there are risks of intense or prolonged transmission of viral gastroenteritis that may require aggressive intervention. Whatever the initial source of the outbreak, subsequent transmission is often person-to-person, with probably both direct fecal-oral and airborne involvement. Although most outbreaks of viral gastroenteritis are self-limiting, the following recommendations should be implemented to control a nursing home outbreak until the outbreak is over, i.e. when no signs or symptoms exist within the facility for 5 days.

#### **Residents:**

1. Isolate ill residents from others by confining them to their rooms until three days after their last symptoms. Group ill persons together if possible. Suspend activities where ill and well residents would be together. Group activities should be kept to a minimum, or postponed.
2. Ill residents should be served meals in their room. Discontinue self-service in the cafeteria/dining room to minimize food handling by residents.
3. Do not use any equipment that has been used for ill residents with well residents unless it has been thoroughly disinfected with an appropriate germicide.
4. Residents should be educated and reminded to wash hands.

5. Restrict visitations and suspend new admissions (particularly compromised individuals) until the outbreak is over.
6. All staff and residents should wash their hands immediately before they eat or touch their mouth.
7. Soiled linens and clothes should be handled as little as possible, and with minimum agitation to prevent microbial contamination of the air and of persons handling the linen. Transport in enclosed and sanitary manner such as a plastic bag if laundry is wet. Clean and sanitize as described below.

### **Employee Health**

1. Exclude from work ALL staff with symptoms of nausea, vomiting or diarrhea. Ill staff should remain away from work for a minimum of 48-72 hours following the disappearance of symptoms. This exclusion is particularly important for food handlers, who should not be involved in preparing food or handling ice for the same period.
2. Restrict access to the kitchen to well kitchen staff only. Staff who have been ill or who have been caring for ill residents must not enter the food service area.
3. Minimize the flow of staff between sick and well residents. Staff should be assigned to work with either well or sick residents, but should not care for both groups. Staff who go between ill and well residents, or who work on multiple units, or wings can transmit the virus from resident to resident.

### **Personal Protective Measures**

1. Conduct staff meetings to educate staff on enteric precautions, isolation measures, personal hygiene, disinfection, handwashing, glove use, linen handling, proper laundering, droplet precautions for vomitus, and avoiding aerosolization of virus.
2. Staff should wear gloves and protective gowns or clothing when caring for ill residents or when touching potentially contaminated surfaces, including bedding. Gloves and protective clothing should be discarded and hands washed **immediately** after completing patient care.
3. Staff should wash their hands when entering and leaving **every** resident room.
4. Masks should be worn when caring for residents who are vomiting or have diarrhea or when cleaning areas contaminated by vomit or stool.
5. Designate regular cleaning of all hand contact surfaces (e.g., handrails, doorknobs, faucets, bath rails, PT/OT equipment etc.) and restrooms with an appropriate germicidal product.
6. Alcohol based hand sanitizers are ineffective against some gastrointestinal viruses and must not be used in place of hand washing.

### **Cleaning and Disinfecting**

1. The most effective disinfectant for noroviruses is chlorine based. Use chlorine bleach from a **new bottle** in the following concentrations for these surfaces: with a **contact time of 10-20 minutes**  
**200 ppm (5 tablespoons of bleach in 1 gallon of water)**  
Stainless Steel, food/mouth contact items  
**1000 ppm (1/3 cup in 1 gallon of water)**  
Non-porous surfaces – Tile floors, counter-tops, sinks, toilets.

### **5000 ppm (1 and 2/3 cups bleach in 1 gallon of water)**

Porous surfaces—wooden floors

2. Designate cleaning teams to clean and disinfect all surfaces - doorknobs, faucets, sinks, toilets, bath rails, PT/OT equipment, phones, hand rails, light switches, mattress covers, aprons, linens, bedding, ice machines. Continue with twice daily bleach disinfection of surfaces and objects.

### **SPECIFIC CLEAN UP PROCEDURES**

Cleaning **large spills** of vomitus/stool (2 step process)

1. Pickup visible organic debris with absorbent material and discarded in a plastic bag to prevent aerosols.
2. Liberally disinfect area and objects surrounding the contamination with bleach solution of appropriate concentration and allow for a sufficient contact time—see above. Multiple applications may be necessary.

**Hard Surfaces** – Disinfect with bleach, allow 10-20 minutes contact time and rinse with clean water.

**Carpet** – Pickup visible organic debris with absorbent material and discarded in a plastic bag. Steam clean @ 158 degrees F for Five minutes or 212 degrees for 1 minute.

**Linens/clothing /textiles** – remove visible organic debris with absorbent material and discard in a plastic bag. Keep contaminated and uncontaminated clothes separate. Minimize disruption of soiled linens and laundry to minimize aerosols. Wash in a pre-wash cycle, then use a regular wash cycle using detergent and dry separately from contaminated clothing at temp greater than 170 degrees F.

### **HEALTH CONCERNS WITH USING CHLORINE BLEACH**

Never ever mix other cleaners/disinfectants/or other chemicals with bleach.

Prepare your bleach solution in a well-ventilated area. Chlorine bleach is corrosive and an irritant to skin, eyes, upper and lower respiratory tract and all mucosal tissue.

Avoid spray bottle application of disinfectants.

Use disposable gloves (a heavier glove is necessary when working with 1000 ppm and 5000 ppm dilutions), masks, eye protection and gown or protective clothing when working with 1000 ppm and 5000 ppm dilutions of bleach disinfectant especially.



## Norovirus Facts

### **What are Noroviruses?**

Noroviruses are a group of viruses that cause the “stomach flu,” or gastroenteritis (GAS-tro-en-ter-I-tis), in people. Norovirus is also commonly known as Norwalk or the “cruise ship virus.

### **What are the symptoms of noroviruses?**

The symptoms of norovirus illness usually include nausea, vomiting, diarrhea, and some stomach cramping. Sometimes people also have a low-grade fever, chills, headache, muscle aches, and a general sense of tiredness. The illness often begins suddenly, and the infected person may feel very sick. The illness is usually brief, with symptoms lasting from 12 hours to 5 days. In general, children experience more vomiting than do adults. Most people with norovirus illness experience both diarrhea and vomiting.

### **How serious is norovirus disease?**

Norovirus disease is usually not serious, although people may feel very sick and vomit many times a day. Most people get better within 1 or 2 days, and they have no long-term health effects related to the norovirus. However, sometimes people become dehydrated due to vomiting and diarrhea and may need special medical attention. The very young, the elderly, and persons with weakened immune systems are more likely to experience dehydration, hospitalization, and complications, including death.

### **How do people become infected with noroviruses?**

Noroviruses are found in the stool or vomit of infected people. People can become infected with the virus in several ways, including:

- Eating food or drinking liquids that are contaminated with norovirus;
- Touching surfaces or objects contaminated with norovirus, and then placing their hand in their mouth;
- Having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness, or sharing foods or eating utensils with someone who is ill).

Persons working in day-care centers or nursing homes should pay special attention to children or residents who have norovirus illness. **This virus is very contagious and can spread rapidly** throughout such environments.

### **When do symptoms begin?**

Symptoms of norovirus illness usually begin about 24 to 48 hours after ingestion of the virus, but they can appear as early as 12 hours after exposure.

### **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, it is very important to use good handwashing and other hygienic practices.