

Norovirus Outbreak Control Checklist for Facilities

The following checklist is intended to help guide facilities responding to potential norovirus outbreaks. These steps are recommendations, not requirements, and should be executed in consultation with the local health jurisdiction (LHJ).

Norovirus Outbreak Interventions:	N/A	Date Completed
1. Determine if norovirus is the cause of gastroenteritis outbreak. See Norovirus Background for a description of norovirus.		
a. Provide information requested by the LHJ (e.g., case count and symptoms, microbiology test results, etc.) to enable the LHJ to determine if norovirus is the cause of the gastroenteritis outbreak.	<input type="checkbox"/>	_/_/_
2. Communication. See sample Communication Framework .		
a. Report suspected or confirmed outbreak to the LHJ immediately.	<input type="checkbox"/>	_/_/_
b. Educate staff, visitors, patients/residents, and parents, as applicable to the setting, about the importance of following outbreak control activities: <ul style="list-style-type: none"> • Provide periodic briefings to staff outlining the status of the outbreak and outbreak control activities being implemented.¹ • Provide information about the transmission of viral gastroenteritis and infection control procedures.¹ • Provide clear guidelines on how to report new ill staff, new ill customers, public vomiting/fecal accidents, handwashing sinks that need to be stocked, etc.¹ 	<input type="checkbox"/>	_/_/_
c. If the outbreak is in healthcare or long-term care facility: <ul style="list-style-type: none"> • Ensure facility administration and infection control team are aware of the possible outbreak.² • Ensure patients/residents, relatives, and visitors are aware of the outbreak, such as through signs at entry/exit and email notifications.² See sample notification alert. 	<input type="checkbox"/>	_/_/_
d. If outbreak is in a child care facility such as a school or day care, work with the LHJ to ensure parents and guardians are aware of the outbreak and norovirus control measures, such as by disseminating a child care notification alert and Guidance for Parents .		
3. Monitor the outbreak.		
a. If the outbreak is in any setting <i>except</i> a food service setting: <ul style="list-style-type: none"> • Consult with the LHJ to determine the most appropriate method of case reporting. If determined necessary by the LHJ, prepare a line list of infected individuals (including staff) with such information as their 	<input type="checkbox"/>	_/_/_

location, date/time of onset, events attended, etc. at time intervals requested by the LHJ. See case report worksheet for sample form the facility could submit.		
b. If the outbreak is in a food service setting, <i>immediately</i> notify the LHJ of infected individuals (including staff) with information requested by the LHJ such as the infected individual’s location, date/time of onset, any meal details, etc. upon report of illness. See case report worksheet for sample form the facility could submit.	□	_/_/_
4. Identify and eliminate common sources of transmission.		
a. Follow LHJ direction as to which foods that may have been contaminated need to be removed from service for holding, testing, or discarding, which may include items such as: <ul style="list-style-type: none"> • leftover food from meals implicated in a point-source outbreak (an outbreak where several people who shared the same meal become ill in a short period of time);¹ • open packages and open boxes of food that might be served without thorough cooking; • prepared food and ingredients that may be served without thorough cooking; • condiments that have been out for food worker or customer use including breadings, salt, pepper, hot sauce, ketchup, etc.; • condiment bottles that are refilled, if they cannot be thoroughly cleaned and sanitized; • open cases of single service articles including to-go boxes, wax paper, napkins, etc.; • ice and other beverage ingredients. 	□	_/_/_
b. If the setting is not a food service establishment or child care facility, follow LHJ direction as to whether to discontinue family-style or self-serve buffet meal service and instead designate food service employees to serve visitors/residents until the outbreak is under control. ¹	□	_/_/_
c. If the setting is a food service establishment, follow LHJ direction as to whether the food service establishment must be closed for 24-48 hours to allow for adequate cleaning and sanitizing, removal of contaminated foods, food worker healing, and investigation, after which the facility can open under regular operation.	□	_/_/_
d. If the setting is a child care facility, follow LHJ direction as to whether the facility should discontinue or modify food service and consider having the children bring food from home for the duration of the outbreak.	□	_/_/_
5. Prevent personnel from becoming infected.		
a. Review proper handwashing technique with employees. Use soap and water for at least 20 seconds for hand hygiene after providing care or having contact with individuals suspected or confirmed with norovirus. ⁶	□	_/_/_
b. Ensure that handwashing stations have soap, paper towels, and hands-free trash bins.	□	_/_/_

c. In a healthcare or long-term care facility, provide personal protective equipment (PPE) (gowns, gloves, and masks) to staff. ¹	<input type="checkbox"/>	__/__/__
d. Direct personnel coming into direct contact with ill persons to wear disposable gloves and, in healthcare or long-term care facilities, to wear water proof gowns when contamination with fecal material or vomitus is possible. ¹	<input type="checkbox"/>	__/__/__
e. If setting is not a food service establishment, provide alcohol-based hand sanitizers with at least 60%-95% ethanol ₃ (not as effective as handwashing). Educate staff to use sanitizers as an adjunct between handwashing and only when hands are not visibly soiled. ¹	<input type="checkbox"/>	__/__/__
f. Direct personnel to practice proper handwashing technique and to wear gloves and – if available – masks when cleaning areas grossly contaminated by feces or vomit because splattering or aerosols of infectious material may contain infectious virus particles. ¹	<input type="checkbox"/>	__/__/__
6. Prevent employee transmission of illness.		
a. Staff members with symptoms of gastroenteritis should wait at least 48 hours after resolution of symptoms before returning to work. ^{1,4}	<input type="checkbox"/>	__/__/__
b. In food service establishments, restrict food employee work per the following regulations and guidance: <ul style="list-style-type: none"> • It is recommended that staff wait at least 48 hours after resolution of symptoms before returning to work.⁴ • The Centers for Disease Control and Prevention (CDC) advise that food employees not prepare food for others while sick and for 2-3 days after recovery.^{5,6} 	<input type="checkbox"/>	__/__/__
c. Exclude non-essential staff, volunteers, etc. from working in areas experiencing norovirus outbreaks. ⁴	<input type="checkbox"/>	__/__/__
d. In long-term or health care settings and cruise ships, work with the LHJ to establish and follow protocols for staff cohorting in the event of a norovirus outbreak. Staff should care for one patient/resident cohort on their ward and not move between patient cohorts (e.g., cohorts may include symptomatic, asymptomatic exposed, or asymptomatic unexposed patient/resident groups). ^{1,4} Staff who have been exposed to or recently recovered from suspected norovirus may best be suited to care for symptomatic patients/residents until the outbreak resolves.	<input type="checkbox"/>	__/__/__
7. Long-term or health care facilities: Prevent visitors from spreading illness to residents/patients.		
a. Restrict number of visitors to facilities with potential outbreaks, especially to units with affected patients/residents. ¹	<input type="checkbox"/>	__/__/__
b. Ensure that those visiting ill persons wear gowns and wash their hands before and after visiting. ¹	<input type="checkbox"/>	__/__/__
c. Caution visitors of ill patients/residents not to visit others until they are sure that they are not sick. ¹	<input type="checkbox"/>	__/__/__

d. Restrict persons with recent symptoms of gastroenteritis from visiting the facility. ¹	<input type="checkbox"/>	__/__/__
8. In settings that are not food service establishments, minimize transmission between residents/patients/children/patrons.		
a. Restrict new admissions to a facility with an outbreak until the outbreak has ended. ¹	<input type="checkbox"/>	__/__/__
b. Consider canceling group activities in a facility with an outbreak, especially activities with possible fomite transmission or where food is shared. ^{1,4}	<input type="checkbox"/>	__/__/__
c. Temporarily suspend self-serve snacks in a common bowl for the duration of the outbreak. ¹	<input type="checkbox"/>	__/__/__
d. Conduct health assessments for persons with gastroenteritis at their place of residence or in a separate area of the clinic (e.g., separate area of school clinic) to prevent others from getting ill. ¹	<input type="checkbox"/>	__/__/__
e. Feed ill individuals in their rooms with disposable cutlery and dinnerware. If convalescing patients resist dining in their rooms, consider cohorting convalescing patients at tables together. ¹	<input type="checkbox"/>	__/__/__
f. During a norovirus outbreak, it may be appropriate to exclude children with norovirus from child care facilities for more than 24 hours (e.g., 48 or 72 hours) after resolution of diarrhea, as determined by the LHJ. <i>See Guidance for Parents.</i>	<input type="checkbox"/>	__/__/__
g. In long-term or health care facilities (or overnight camps or boarding schools if a person ill with norovirus does not return home): Isolate ill patients/residents from well patients/residents until at least 48 hours after resolution of symptoms. ¹ Either use single occupancy rooms or cohort ill patients together separate from asymptomatic patients/residents. ^{4,5}	<input type="checkbox"/>	__/__/__
h. In long-term or health care facilities, wait until 48 hours after exposure before transferring exposed, asymptomatic persons to unaffected areas. ⁵	<input type="checkbox"/>	__/__/__
9. Long-term or health care facilities: Prevent transmission to other facilities.		
a. Suspend transfer of patients/residents from a facility experiencing an outbreak to another ward or facility until patients/residents have been symptom-free for at least 48 hours. ^{1,4,5}	<input type="checkbox"/>	__/__/__
b. Inform staff that they should not report to work at any facility until at least 48 hours after resolution of symptoms. ¹	<input type="checkbox"/>	__/__/__
c. If a patient/resident must be transferred (either symptomatic or asymptomatic), advise staff of the receiving facility to take appropriate precautions to prevent transmission to others. ¹ Use an inter-facility transfer form for the patient. <i>See the sample Inter-Facility Infection Prevention and Safety Form.</i>	<input type="checkbox"/>	__/__/__
d. Medically suitable individuals recovering from norovirus (asymptomatic for at least 48 hours) can return to their place of residence. ⁴	<input type="checkbox"/>	__/__/__
10. Environmental disinfection		
a. Take the following actions to handle laundry safely:	<input type="checkbox"/>	__/__/__

<ul style="list-style-type: none"> • Individuals who handle soiled linens and clothes should wear disposable gloves and gowns and handle soiled linens and clothes as little as possible, minimizing agitation to prevent microbial contamination of the air.⁶ • Transport laundry in an enclosed and sanitary manner. • Promptly machine-wash soiled linens and clothes with a detergent in water at the maximum length cycle, and machine dry.⁶ 		
<p>b. Take the following actions to clean and disinfect:</p> <ul style="list-style-type: none"> • For hard, nonporous environmental surfaces: See the poster “Help Prevent the Spread of Norovirus”. • Clean by removing any visible organic contamination, followed by disinfection with a chlorine bleach solution or antimicrobial disinfectant approved by the Environmental Protection Agency (EPA) as being effective against norovirus for environmental cleaning (see https://www.epa.gov/pesticide-registration/list-g-epas-registered-antimicrobial-products-effective-against-norovirus). This EPA list should be interpreted with caution because the efficacy of these products is tested on the surrogate feline calicivirus, not human norovirus. Therefore, chlorine bleach solutions should be used whenever possible.⁵ Use a concentration of 1,000-5,000ppm (5-25 tablespoons or approximately 1/3 to 1 ½ cups of household bleach [5.25%] per gallon of water) for at least 5 minutes, or according to product directions for norovirus outbreak control if not using household bleach.⁵ Following disinfection, rinse all surfaces intended for food or mouth contact or in child care/school settings with plain water before use. <ul style="list-style-type: none"> ○ Bleach solutions should be freshly prepared for use within 24 hours, or the target concentration should be doubled for storage and used within 30 days.⁵ ○ Particular attention should be paid to high-touch surfaces and areas of likely greatest environmental contamination, including but not limited to: bathrooms including toilets, showers, walls, floors, benches, faucets, etc.; doors; door knobs; hand rails; light switches; elevator buttons; telephones; computer equipment; tableware; flatware; reusable food storage containers; tables; chairs and chair backs; counters; shelves; equipment faces; kitchen preparation surfaces; equipment (e.g., microwaves, refrigerators) and ice machine interiors.^{1,4,5} ○ Kitchens should be closed, thoroughly cleaned in accordance with the aforementioned norovirus cleaning and disinfection methods, and then re-opened with a cleaning schedule as part of the kitchen operation plan developed with the regulatory authority after the LHJ verifies that the cleaning is adequate, the proper foods have been removed, and food workers are well. When the building is norovirus-free, routine cleaning can resume. ○ In healthcare settings: <ul style="list-style-type: none"> ▪ Chlorine bleach or EPA-approved products for norovirus should be used to clean on a routine basis (i.e., twice daily ward/unit level cleaning and disinfection of patient/resident care areas, with frequently touched surfaces cleaned and disinfected three times daily).⁴ 	□	_/_/_/_

<ul style="list-style-type: none">▪ Cleaning products and disinfectants should be EPA-registered and have label claims for use in health-care settings.⁵• For carpets and other porous surfaces: use steam cleaning or an EPA approved cleaner. Disinfection with bleach may discolor carpets or fabric.• Persons cleaning areas heavily contaminated with vomit or feces should wear appropriate protective barriers (e.g., latex gloves – and if splashing is possible, a mask or face shield and garments such as a uniform, jumpsuit, or gown to protect street clothing) and perform disposal in a prompt manner that prevents transfer of this material to other surfaces or persons.⁶		
--	--	--

References

1. Public Health - Seattle & King County. Norovirus Infections: Public Health Importance and Outbreak Management [updated February 8, 2018; accessed December 31, 2019]. Available from: <http://www.kingcounty.gov/healthservices/health/communicable/diseases/NorovirusControl.aspx>
2. County of Los Angeles Public Health. Norovirus Outbreak Prevention Toolkit: A Guide for Preventing Norovirus Outbreaks in Skilled Nursing Facilities. County of Los Angeles Public Health; October 2012 [accessed 2016 January 25]. Available from: <http://publichealth.lacounty.gov/acd/docs/Norovirus/NoroToolkit2012.pdf>
3. MacCannell T, Umscheid CA, Agarwal RK, Lee I, Kuntz G, Stevenson KB. Guideline for the prevention and control of norovirus gastroenteritis outbreaks in healthcare settings. *Infection control and hospital epidemiology*. 2011;32(10):939-69. Epub 2011/09/21. doi: 10.1086/662025. PubMed PMID: 21931246.
4. Centers for Disease Control and Prevention. Key Infection Control Recommendations for the Control of Norovirus Outbreaks in Healthcare Settings. Atlanta, GA: Centers for Disease Control and Prevention; [accessed December 31, 2019]. Available from: <http://www.cdc.gov/hai/pdfs/norovirus/229110A-NorovirusControlRecomm508A.pdf>.
5. Centers for Disease Control and Prevention. Updated norovirus outbreak management and disease prevention guidelines. *MMWR Recommendations and reports*. 2011;60(Rr-3):1-18. Epub 2011/03/04. PubMed PMID: 21368741.
6. Centers for Disease Control and Prevention. Norovirus: Facts for Food Handlers. Atlanta, GA: Centers for Disease Control and Prevention; [accessed December 31, 2019]. Available from: <http://www.cdc.gov/norovirus/downloads/foodhandlers.pdf>.