Norovirus (updated 2-12-2015)

Organism: Noroviruses are small RNA viruses classified as caliciviruses.

Incubation period: 24-48 hours (average)

Infectious period: Infected persons can remain contagious after recovery because asymptomatic viral shedding can continue for as long as 3 weeks.

Transmission route: Highly contagious, it only takes 18 viral particles to infect another person. Primarily spread through close personal contact with an infected person or fecal-oral route when a person consumes contaminated food or water. It is possible to spread via aerosolized vomit that land on surfaces or enters a person's mouth then he or she swallows. Exposure to or ingestion of a focally contaminated vehicle, such as infected food or water and secondary infection via person-to-person contact, aerosolized vomitus, fomites, and infected foodhandlers.

Treatment: Symptomatic. Severe dehydration can occur; however, long-term sequelae of norovirus infection have not been reported.

Information Needed for the Investigation

Verify the Diagnosis

- Clinical history: acute-onset vomiting, watery non-bloody diarrhea with abdominal cramps, and nausea in the absence of any other identified cause. Some people may have low-grade fever, headaches and myalgias (body aches). Symptoms generally last 24-72 hours.
- Laboratory: norovirus detection from stool or vomitus by PCR analysis. Cannot be grown in culture.

Determine the Extent of Illness

- Use a foodborne outbreak questionnaire, and ask all identified case-patients to name others known to have sudden onset of diarrhea and/or vomiting within the timeframe of the outbreak.
- Try to obtain a three-day food history from case-patients (and controls) to determine potential foodborne or waterborne etiology.
- Always try to collect a stool sample from any ill food handler.
- Retrieve and refrigerate implicated food(s). If the food is a commercial product, obtain the brand name, lot number, and distributor and report to Division of Environmental Health, Food Safety and Sanitation

Laboratory Specimens

- SOE staff must first approve clinical sample testing from clusters of two or more related cases of gastroenteritis.

- No more than six (6) stool samples should be routinely collected for a given outbreak. (Usually, three (3) are adequate.)
- Collect ~10-50 ml of **bulk** stool (no UTM) and/or ~10-50 ml of vomitus in a leak-proof container.
- Collect specimens as soon as symptoms appear, ideally within 48-72 hours of onset.
- All human specimens should be sent to the ASPHL in Fairbanks. Along with a norovirus PCR request form. (For viral disease questions contact: E-mail: cdcinfo@cdc.gov or phone: Viral Diseases: 1-800-CDC-INFO (232-4636) / 1-888-232-6348 (TTY)
- Collect suspected food samples and bag separately. A CDC laboratory form will need to be completed for each food specimen and sent to CDC. Implicated foods can be tested at FDA for norovirus. Contact FDA's point of contact: Burkhardt III, William [William.Burkhardt@fda.hhs.gov]

  CAPT William Burkhardt III
  U.S. Food and Drug Administration
  1 Iberville Dr.
  Dauphin Island, AL 36528
  2514540088

  - Specimens should be refrigerated, not frozen. See Laboratory information. http://www.dhss.alaska.gov/dph/Labs/Documents/LaboratoryTests.pdf
  - Paperwork should be separated from the specimen.
  - Specimens should be packaged and labeled as Biological Substance, Category B, and shipped in an insulated, waterproof shipping container with cool packs to:

    Alaska State Virology Laboratory - Fairbanks
    931 Sheenjek Drive
    Or P.O. Box 60230 if sending by mail service
    Fairbanks, AK 99706-0230
- Notify lab (907) 474-7017 and Jessica Grantier (SOE Program) with airway bill number.

Contact and Control Measures

- Determine the source of infection to prevent other cases. This is done through a three-day food history, interviews, and epidemiology principles applied as in any foodborne outbreak.
- Sanitation/hygiene (see the norovirus prevention packet): http://www.epi.hss.state.ak.us/id/dod/norovirus.stm .
- Noroviruses are highly contagious, and a small inoculum, as few as 18 viral particles, is sufficient to infect an individual.
- Wash hands carefully using soap and running water for 20 seconds after using the toilet, and before eating or preparing food.
- Food handlers with nausea, vomiting and diarrhea should stop working until symptom-free for 48 hours. Meticulous hand washing should be continued since the virus can be shed in stool for 5-13 days after symptoms resolve.
- Hard surfaces that are frequently touched by people (such as counter tops, bathroom surfaces, doorknobs, handrails, telephones, and floors) should be cleaned using standard cleaners and then disinfected using 5.25% unscented chlorine bleach at a concentration of 1000 ppm (5 tablespoons of bleach/gallon of water). Allow the bleach solution to air dry.

- Heavily contaminated hard surfaces that have been directly exposed to the virus (bathroom floors contaminated with fecal or vomitus) should first receive an initial cleaning to remove all organic material, and then disinfected with 5.25% unscented chlorine bleach at a concentration of 5000 ppm (2 cups of bleach per gallon of water) .[1] Other disinfectants other disinfectant registered as effective against norovirus by the Environmental Protection Agency (EPA). For more information, see http://www.epa.gov/oppad001/list_g_norovirus.pdf. Wear gloves when cleaning, allow the bleach solution to air dry, and wash hands well afterward.

Healthcare Facility Considerations

- Standard and Contact Precautions.
  http://www.cdc.gov/HAI/organisms/norovirus.html
  http://www.cdc.gov/hai/pdfs/norovirus/229110A-NorovirusControlRecomm508A.pdf
- Patient Cohorting and Isolation Precautions:
  - Place patients with norovirus gastroenteritis on Contact Precautions for a minimum of 48 hours after the resolution of symptoms
  - When symptomatic patients cannot be accommodated in single occupancy rooms, efforts should be made to separate them from asymptomatic patients. These efforts may include placing patients in multi-occupancy rooms, or designating patient care areas or contiguous sections within a facility for patient cohorts.
  - Staffs who have recovered from recent suspected norovirus infection associated with an outbreak may be best suited to care for symptomatic patients until the outbreak resolves.
    - Consider the following precautions:
      - ☐ Minimize patient movements within a ward or unit during norovirus outbreaks
      - ☐ Restrict symptomatic and recovering patients from leaving the patient-care area unless it is for essential care or treatment
      - ☐ Suspend group activities (e.g., dining events) for the duration of a norovirus outbreak.
- Persons who clean areas heavily contaminated with feces or vomitus may benefit from wearing masks, because virus can be aerosolized from these body substances.
- Increase the frequency of cleaning and disinfection of patient care areas and frequently touched surfaces during outbreaks of norovirus gastroenteritis (e.g., increase ward/unit level cleaning twice daily to maintain cleanliness, with frequently touched surfaces cleaned and disinfected three times daily using 5.25% bleach solution or an EPA-approved products for healthcare settings).
- Clean and disinfect surfaces starting from the areas with a lower likelihood of norovirus contamination (e.g., tray tables, counter tops) to areas with highly contaminated surfaces (e.g., toilets, bathroom fixtures). Change mop heads when new solutions are prepared, or after cleaning large spills of emesis or fecal material.
- No additional provisions for using disposable patient service items such as utensils or dishware are suggested for patients with symptoms of norovirus infection. Silverware and dishware may undergo normal processing and cleaning using standard procedures.

[1] Controlling the Spread of Norovirus retrieved 5-26-10: http://www.dec.state.ak.us/eh/docs/fss/norovirus.pdf

- Use Standard Precautions for handling soiled patient-service items or linens, which includes the appropriate use of PPE.
- Consider changing privacy curtains routinely and upon patient discharge or transfer.
- See contact and control measures above for environmental cleaning recommendations. http://www.cdc.gov/hai/pdfs/norovirus/229110A-NorovirusControlRecomm508A.pdf

Reporting Requirements

- FTR: Write up all investigated outbreaks.
- Document patient/client names and information in T:drive/Apps/INF_APPS/outbreaks and investigations spreadsheet.xlsx
- AK Stars: Not entered.

Reference

1. Centers for Disease Control and Prevention (CDC), Responding to Norovirus Outbreaks. Available at http://www.cdc.gov/norovirus/php/responding.html.
2. CDC Norovirus in Healthcare Settings. Available at http://www.cdc.gov/HAI/organisms/norovirus.html
3. Heymann DL, Editor. Control of Communicable Diseases Manual. Copyright: 2015 by the Public Health Association. Available at www.apha.org.
4. Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. Available at http://www.cdc.gov/hicpac/pdf/isolation/isolation2007.pdf

Norovirus Testing at the Alaska State Virology Laboratory

Test	Norovirus
Disease(s)	Noro, Norovirus, Norwalk-like disease, epidemic viral gastroenteropathy
Organism(s)	Norovirus, Norwalk-like Viruses
Test Method	PCR
Availability	Testing will only be completed for outbreak situations. Contact Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.
Specimen	Raw stool, vomit, or emesis in sterile container. (Specimens must NOT be submitted in UTM). Collect at least 5 ml. Click here for Norovirus Detailed Collection Instructions
Storage/ Transport	Store refrigerated. Ship with cool packs.
Results	Norovirus Positive (Genogroup I or II)/Negative
Turnaround Time	2–7 days

Norovirus Detailed Collection Instructions

Norovirus outbreak testing should be pre-approved by the Section of Epidemiology. Please call the Section of Epidemiology at 907-269-8000 during business hours or 1-800-478-0084 after business hours.

Collection of Specimens

1. Section of Epidemiology will determine the number of specimens that need to be collected (usually 4-6).
2. Raw, loose, stool and vomitus are appropriate specimens to collect.
3. Collect at least 5 mL, preferably 10-50 mL of specimen.
4. Collect specimen in a leak-proof container. Supplies can be obtained from Epidemiology, the Alaska State Public Health Laboratory – Fairbanks or Anchorage.
5. Collection should begin as soon as symptoms appear, ideally within 48-72 hours of onset.
6. **DO NOT** submit samples in viral transport media (VTM) or Universal Transport Media (UTM).

Storage and Transport

1. Store specimens at 4oC.
2. Complete all information on the norovirus request slip. Paperwork may be obtained from Section of Epidemiology, Alaska State Public Health Laboratory – Fairbanks or Anchorage.
3. Specimen containers should be individually sealed and bagged with the appropriate amount of absorbent material. (Roughly two paper towels per 50 mL.)
4. Paperwork should be separated from the specimen.
5. Specimens should be packaged and labeled as Biological Substance, Category B, and shipped in an insulated, waterproof shipping container with cool packs.
6. Arrange with Section of Epidemiology for transportation to:

Norovirus Testing at the Alaska State Virology Laboratory

Alaska State Public Health Laboratory - Fairbanks 931 Sheenjek Drive or P.O. Box 60230 if sending by mail service Fairbanks, AK 99706-0230 (907) 371-1000

Note: Food, water or environmental samples are not tested. Please refer any further questions to the Alaska State Public Health Laboratory – Fairbanks at 907-371-1000.

http://www.cdc.gov/norovirus/downloads/keyfacts.pdf link for facts

http://www.cdc.gov/nceh/vsp/pub/norovirus/Norovirus.htm Cruise Ship Information

Key Infection Control Recommendations

for the Control of Norovirus Outbreaks in Healthcare Settings

Patient Cohorting and Isolation Precautions

Place patients with norovirus gastroenteritis on Contact Precautions for a minimum of 48 hours after the resolution of symptoms

When symptomatic patients cannot be accommodated in single occupancy rooms, efforts should be made to separate them from asymptomatic patients. These efforts may include placing patients in multi-occupancy rooms, or designating patient care areas or contiguous sections within a facility for patient cohorts.

- Staff who have recovered from recent suspected norovirus infection associated with an outbreak may be best suited to care for symptomatic patients until the outbreak resolves.

Consider the following precautions:

- Minimize patient movements within a ward or unit during norovirus outbreaks
- Restrict symptomatic and recovering patients from leaving the patient-care area unless it is for essential care or treatment
- Suspend group activities (e.g., dining events) for the duration of a norovirus outbreak.

Hand Hygiene

- Actively promote adherence to hand hygiene among healthcare personnel, patients, and visitors in patient care areas affected by outbreaks of norovirus gastroenteritis
- During outbreaks, use soap and water for hand hygiene after providing care or having contact with patients suspected or confirmed with norovirus gastroenteritis.

  *For all other hand hygiene indications refer to the 2002 HICPAC Guideline for Hand Hygiene in Health-Care Settings (http://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf).

Personal Protective Equipment (PPE)

- If norovirus infection is suspected, adherence to PPE use according to Contact and Standard Precautions is recommended for individuals entering the patient care area (i.e., gowns and gloves upon entry).

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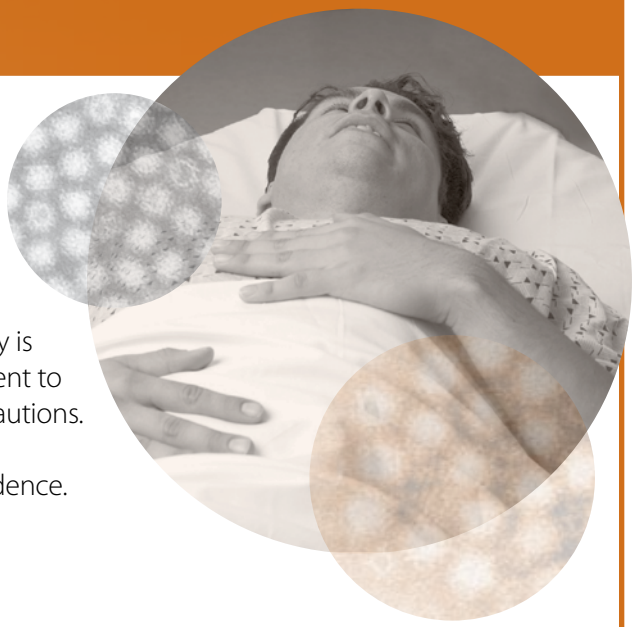

Patient Transfer and Ward Closure

- Consider the closure of wards to new admissions or transfers as a measure to attenuate the magnitude of a norovirus outbreak.
- Consider limiting transfers to those for which the receiving facility is able to maintain Contact Precautions; otherwise, it may be prudent to postpone transfers until patients no longer require Contact Precautions. During outbreaks, medically suitable individuals recovering from norovirus gastroenteritis can be discharged to their place of residence.

Diagnostics

- In the absence of clinical laboratory diagnostics or in the case of delay in obtaining laboratory results, use Kaplan's clinical and epidemiologic criteria to identify a norovirus gastroenteritis outbreak.

Kaplan's Criteria:

1. Vomiting in more than half of symptomatic cases, and
2. Mean (or median) incubation period of 24 to 48 hours, and
3. Mean (or median) duration of illness of 12 to 60 hours, and
4. No bacterial pathogen isolated from stool culture

- Consider submitting stool specimens as early as possible during a suspected norovirus gastroenteritis outbreak and ideally from individuals during the acute phase of illness (within 2-3 days of onset).
- Specimens obtained from vomitus may be submitted for laboratory identification of norovirus when fecal specimens are unavailable (consult with your lab). Testing of vomitus as compared to fecal specimens may be less sensitive due to lower detectable viral concentrations.
- Routine collecting and processing of environmental swabs during a norovirus outbreak is not required.

Environmental Cleaning

- Perform routine cleaning and disinfection of frequently touched environmental surfaces and equipment in isolation and cohorted areas, as well as high traffic clinical areas. Frequently touched surfaces include, but are not limited to, commodes, toilets, faucets, hand/bedrailing, telephones, door handles, computer equipment, and kitchen preparation surfaces.
- Increase the frequency of cleaning and disinfection of patient care areas and frequently touched surfaces during outbreaks of norovirus gastroenteritis (e.g., increase ward/unit level cleaning twice daily to maintain cleanliness, with frequently touched surfaces cleaned and disinfected three times daily using EPA-approved products for healthcare settings).

- Clean and disinfect surfaces starting from the areas with a lower likelihood of norovirus contamination (e.g., tray tables, counter tops) to areas with highly contaminated surfaces (e.g., toilets, bathroom fixtures). Change mop heads when new solutions are prepared, or after cleaning large spills of emesis or fecal material.
- No additional provisions for using disposable patient service items such as utensils or dishware are suggested for patients with symptoms of norovirus infection. Silverware and dishware may undergo normal processing and cleaning using standard procedures.
- Use Standard Precautions for handling soiled patient-service items or linens, which includes the appropriate use of PPE.
- Consider changing privacy curtains routinely and upon patient discharge or transfer.

Staff Leave and Policy

- Exclude ill personnel from work for a minimum of 48 hours after the resolution of symptoms. Once personnel return to work, the importance of performing frequent hand hygiene should be reinforced.
- Establish protocols for staff cohorting in the event of an outbreak of norovirus. Ensure staff care for one patient cohort on their ward and do not move between patient cohorts (e.g., patient cohorts may include symptomatic, asymptomatic exposed, or asymptomatic unexposed patient groups).
- Exclude non-essential staff, students, and volunteers from working in areas experiencing outbreaks of norovirus.

Communication and Notification

- Notify appropriate local and state health departments if an outbreak of norovirus gastroenteritis is suspected.

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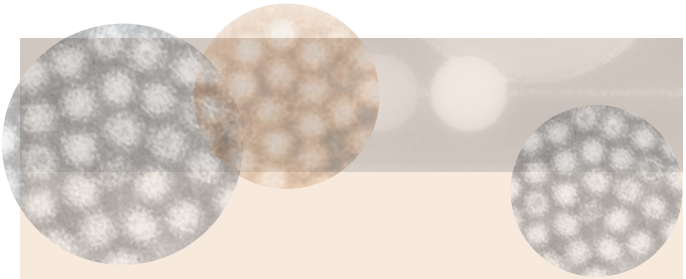
Norovirus in Healthcare Facilities Fact Sheet



General Information

Virology

Noroviruses (genus Norovirus, family Caliciviridae) are a group of related, single-stranded RNA, non-enveloped viruses that cause acute gastroenteritis in humans. Norovirus is the official genus name for the group of viruses provisionally described as "Norwalk-like viruses". Currently, human noroviruses belong to one of three norovirus genogroups (GI, GII, or GIV), which are further divided into >25 genetic clusters. Over 75% of confirmed human norovirus infections are associated with genotype GII.

Clinical manifestations

The average incubation period for norovirus-associated gastroenteritis is 12 to 48 hours, with a median period of approximately 33 hours. Illness is characterized by nausea, acute-onset vomiting, and watery, non-bloody diarrhea with abdominal cramps. 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. Up to 30% of infections may be asymptomatic.

Epidemiology of transmission

Noroviruses are highly contagious, with as few as 18 virus particles thought to be sufficient to cause infection. This pathogen is estimated to be the causative agent in over 21 million gastroenteritis cases every year in the United States, representing approximately 60% of all acute gastroenteritis cases from known pathogens. 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 also 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 infections are seen in all age groups, although severe outcomes and longer durations of illness are most likely to be reported among the elderly. Among hospitalized persons who are immunocompromised or have significant medical comorbidities, norovirus infection can directly result in prolonged hospital stays, additional medical complications, and, rarely, death. There is currently no vaccine available for norovirus and, generally, no specific medical treatment is offered for norovirus infection apart from oral or intravenous repletion of volume.

The ease of its transmission, a very low infectious dose, a short incubation period, environmental persistence, and lack of durable immunity following infection enables norovirus to spread rapidly through confined populations. Healthcare facilities and other institutional settings (e.g., daycare centers, schools, etc.) are particularly at-risk for outbreaks because of increased person-to-person contact. Healthcare facilities managing outbreaks of norovirus gastroenteritis may experience significant costs relating to isolation precautions and personal protective equipment, ward closures, supplemental environmental cleaning, staff cohorting or replacement, and sick time.

Diagnosis of norovirus infection

Diagnosis of norovirus infection relies on the detection of viral RNA in the stools of affected persons, by use of reverse transcription-polymerase chain reaction (RT-PCR) assays. This technology is available at CDC and most state public health laboratories and should be considered in the event of outbreaks of gastroenteritis in healthcare facilities. Enzyme immune-assays may also be used for identification of norovirus outbreak but are not recommended for diagnosis of individuals. Identification of the virus can be best made from stool specimens taken within 48 to 72 hours after onset of symptoms, although positive results can be obtained by using RT-PCR on samples taken as long as 7 days after symptom onset. Because of the limited availability of timely and routine laboratory diagnostic methods, a clinical diagnosis of norovirus infection is often used, especially when other agents of gastroentertis have been ruled out.

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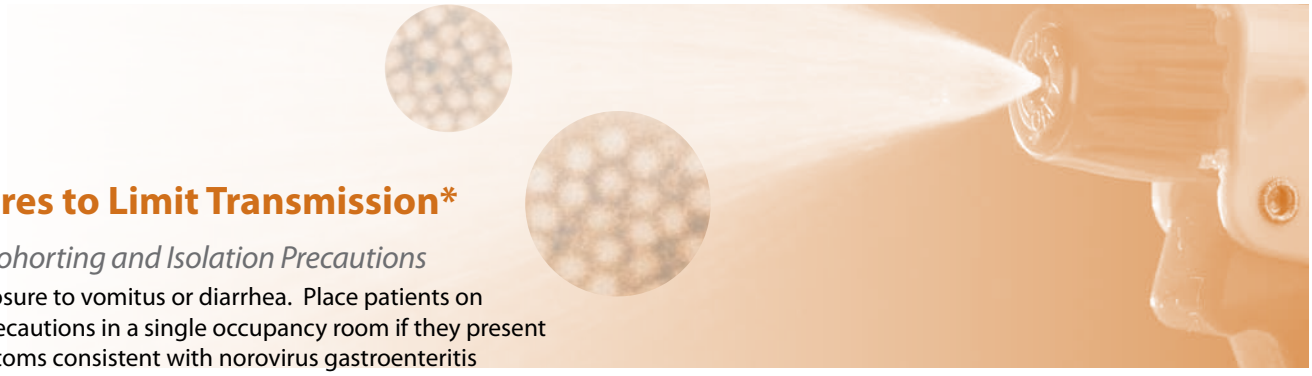

Measures to Limit Transmission*

Patient Cohorting and Isolation Precautions

Avoid exposure to vomitus or diarrhea. Place patients on Contact Precautions in a single occupancy room if they present with symptoms consistent with norovirus gastroenteritis

Hand Hygiene

During outbreaks, use soap and water for hand hygiene after providing care or having contact with patients suspected or confirmed with norovirus gastroenteritis.

Patient Transfer and Ward Closure

Consider limiting transfers to those for which the receiving facility is able to maintain Contact Precautions; otherwise, it may be prudent to postpone transfers until patients no longer require Contact Precautions. During outbreaks, medically suitable individuals recovering from norovirus gastroenteritis can be discharged to their place of residence.

Diagnostics

In the absence of clinical laboratory diagnostics or in the case of delay in obtaining laboratory results, use Kaplan's clinical and epidemiologic criteria to identify a norovirus gastroenteritis outbreak.

Kaplan's Criteria

1. Vomiting in more than half of symptomatic cases and,
2. Mean (or median) incubation period of 24 to 48 hours and,
3. Mean (or median) duration of illness of 12 to 60 hours and,
4. No bacterial pathogen isolated in stool culture

Environmental Cleaning

Increase the frequency of cleaning and disinfection of patient care areas and frequently touched surfaces during outbreaks of norovirus gastroenteritis (e.g., increase ward/unit level cleaning to twice daily to maintain cleanliness, with frequently touched surfaces cleaned and disinfected three times daily using the US Environmental Protection Agency's list of approved products for healthcare settings (http://www.epa.gov/oppad001/chemregindex.htm).

Staff Leave and Policy

Develop and adhere to sick leave policies for healthcare personnel who have symptoms consistent with norovirus infection.

Exclude ill personnel from work for a minimum of 48 hours after the resolution of symptoms. Once personnel return to work, the importance of performing frequent hand hygiene should be reinforced, especially before and after each patient contact.

Establish protocols for staff cohorting in the event of an outbreak of norovirus gastroenteritis. Ensure staff care for one patient cohort on their ward and do not move between patient cohorts (e.g., patient cohorts may include symptomatic, asymptomatic exposed, or asymptomatic unexposed patient groups).

Communication and Notification

As with all outbreaks, notify appropriate local and state health departments, as required by state and local public health regulations, if an outbreak of norovirus gastroenteritis is suspected.

*Prevention and control recommendations taken from priority recommendations in the CDC HICPAC Guideline for the Prevention and Control of Norovirus Gastroenteritis Outbreaks in Healthcare Settings (http://www.cdc.gov/hicpac/pdf/norovirus/Norovirus-Guideline-2011.pdf)

Date last modified: September 6, 2011

Content source: Division of Healthcare Quality Promotion (DHQP), National Center for Preparedness, Detection, and Control of Infectious Diseases (NCEZID)

Contact Us: Centers for Disease Control and Prevention
1600 Clifton Road, Atlanta, GA 30333, USA

1-800-CDC-INFO (1-800-232-4636)

TTY:888-232-6348,

24 hours/everyday at cdcinfo@cdc.gov (TTY)

US Environmental Protection Agency
Office of Pesticide Programs

List G: EPA Registered Hospital Disinfectants Effective Against Norovirus (Norwalk-like virus)

October 29, 2014

EPA Registration No.	Primary Product Name
777-99	BRACE
1677-21	MIKRO-QUAT
1677-216	EXSPOR BASE CONCENTRATE
1677-226	VIRASEPT
1677-238	PEROXIDE MULTI SURFACE CLEANER AND DISINFECTANT
1677-241	HYDRIS
1839-79	NP 4.5 DETERGENT/DISINFECTANT
1839-95	NP 4.5 (D & F) DETERGENT/DISINFECTANT
1839-188	AEROSOL SDAS
5741-28	TUMULT
5813-100	PUMA
6659-3	SPRAY NINE
6836-77	LONZA FORMULATION S-18
6836-78	LONZA FORMULATION R-82
6836-139	LONZA FORMULATION R-82F
6836-140	LONZA FORMULATION S-21F
6836-152	LONZA FORMULATION DC-103
6836-245	CSP-46
6836-266	BARDAC 205M-10
6836-333	MMR-4U
6836-346	LONZAGARD RCS-256
6836-347	LONZAGARD RCS-128
6836-348	LONZAGARD RCS-128 PLUS
6836-349	LONZAGARD RCS-256 PLUS
9480-8	PDI SANI-CLOTH BLEACH WIPES
10324-58	MAQUAT 128
10324-81	MAQUAT 7.5-M
10324-214	MAGUARD 5626
34810-36	CLEAN-CIDE WIPES
46781-12	CAVICIDE 1
56392-7	DISPATCH HOSPITAL CLEANER DISINFECTANT WITH BLEACH
65402-3	VIGOROX SP-15 ANTIMICROBIAL AGENT
67619-12	CPPC TSUNAMI
67619-13	CPPC STORM
67619-17	SHIELD
67619-24	BLONDIE
67619-25	DAGWOOD
67619-30	GNR
70060-19	ASEPTROL S10-TAB
70271-13	PURE BRIGHT GERMICIDAL ULTRA BLEACH
70271-24	TECUMSEH B
70590-1	HYPE-WIPE
70590-2	BLEACH-RITE DISINFECTING SPRAY WITH BLEACH
70627-56	OXIVIR TB
70627-58	OXY-TEAM DISINFECTANT CLEANER
70627-60	OXIVIR WIPES

71654-7	VIRKON
71847-2	KLOR-KLEEN
72977-3	AXEN(R) 30
73232-1	ALPET D2
74559-1	ACCEL TB
74559-8	Accel 5 RTU
74986-4	SELECTROCIDE 2L500
82972-1	VITAL-OXIDE
84526-1	SANOSIL S010
87518-1	HSP2O
88089-4	PERIDOX RTU (TM)

Acute Gastroenteritis / Norovirus Case Report Worksheet

Reporting facility: _____ Contact Name/Phone Number: _____ Estimated number of exposed patients during outbreak ☐

Street Address: _____ Outbreak Identification Number (Health Dept. assigned) _____ Estimated number of exposed staff during outbreak ☐

Unit: _____

	Patient/Staff Demographics					Case Location	Symptoms						Outcome		Diagnostics			
	Name	Unique ID (optional)	Patient (P) Staff (S)	Age	Sex (M/F)	Patients only: Room/Bed	Symptom onset date (mm/dd/yy)	Vomiting (Y/N)	Diarrhea (Y/N)	Bloody stools (Y/N)	Fever (Y/N)	Abdominal cramps (Y/N)	First symptom-free date (mm/dd/yy)	Died (Y/N/Unk)	Specimen(s) collected for diagnostics (Y/N/Unk)	Date of specimen collection (mm/dd/yy)	Lab Results	Location of stool specimen testing (H=HCF lab, C=contracted lab, S=state lab, CD=CDC lab)
1.																		
2.																		
3.																		
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CS# 216887-A

If required, REDACT Name column prior to faxing; FAX to local/state health department upon completion

Sample Framework: Resources for Specimen Submission during Norovirus Outbreaks

Department Notification	Contact Department	Contact Name(s)	Contact phone/email
Primary Options			
Local healthcare facility or contracted clinical laboratory	Clinical Virology lead		
Secondary Options			
Local public health laboratory	1. Communicable Diseases or Outbreak Unit		
	2. Communicable Diseases or Outbreak Unit		
	Public Health Laboratory: Virology		
State public health laboratory	Epidemiology Division		
	Public Health Laboratory: Virology		
Additional Resources			
	Division of Viral Diseases — www.cdc.gov/ncidod/dvrd/gastro/norovirus		cdcinfo@cdc.gov 1-800-CDC-INFO (232-4636)
	Division of Healthcare Quality Promotion — www.cdc.gov/HAI/organisms/norovirus		

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CS# 226212-A NorovirusSpecimenSub