



**CABINET FOR HEALTH AND FAMILY SERVICES
DEPARTMENT FOR PUBLIC HEALTH**

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Audrey Tayse Haynes
Secretary

March 12, 2013

Dear Health Care Facility Operator or Long Term Care Administrator:

Over the past several years Kentucky has experienced an increase in the reported number of gastrointestinal illnesses in health care facilities. We are not unique; there has been increased awareness of these kinds of illnesses in congregate living settings nationwide. These illnesses can cause nausea, diarrhea, vomiting, and stomach cramps, in addition to headache, low-grade fever, muscle aches, and fatigue. A common cause of gastrointestinal outbreaks in institutional environments is a virus called norovirus. This virus is very contagious and can easily spread from person to person through contaminated hands, surfaces, or food, particularly in congregate living situations.

We understand that when residents become ill, it can place a higher demand on staff time, cause stress for staff and residents, and potentially impact the financial viability of your business. In order to assist you in protecting the health of your staff and clients, the Kentucky Department for Public Health and the Office of Inspector General in the Cabinet for Health and Family Services have developed guidelines designed to reduce the number of gastrointestinal outbreaks, prevent spread of illness and assist in quicker recovery. Although targeted toward norovirus, this guidance includes appropriate precautions designed to prevent the spread of contagious diseases that are transmitted through the oral-fecal route. While the guidance is not written into state nursing facility licensure and federal certification laws, the Office of Inspector General encourages adherence to these standards as part of each facility's infection control program, under 42 C.F.R. 483.65, and to promote a sanitary environment, under 42 C.F.R. 483.15(h) and 483.70.

The document updates and replaces earlier guidance issued to long-term care facilities and nursing homes in 2010. For ease of use, it is purposely divided into sections that address various roles within the facility. Our agencies encourage you to discuss the recommendations contained in this document with the supervisors, and staff who work in each of the areas outlined. A multidisciplinary, team approach to infection and outbreak control is likely to prove the most successful.

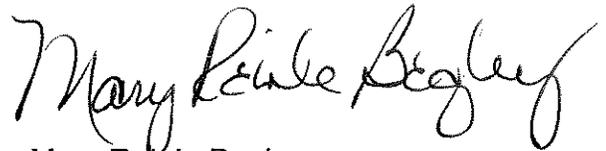
One of the first steps in controlling an outbreak of any communicable disease is early recognition. The Department for Public Health urges your health care facility to report illnesses involving two or more residents with like symptoms to your local health department. The reporting of communicable disease outbreaks is required by law, but it will also help health departments to better assist your facility and minimize the number of affected individuals.

Your local health department, Department for Public Health and the Office of Inspector General will continue to respond to and offer assistance in case of an infectious disease outbreak in an institutional setting. The Office of Inspector General will also place heightened statewide scrutiny on certification and licensure laws related to infection control, sanitation and dietary services. Failure to establish and maintain an infection control program that assures a sanitary environment and prevents the development and transmission of disease and infection may jeopardize the health and safety of residents. A copy of this guidance is being circulated to every licensed long term care facility in the Commonwealth of Kentucky.

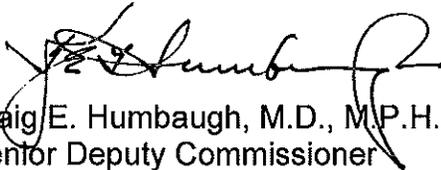
The Department for Public Health and the Office of Inspector General hope that the tools provided with this letter will prevent or reduce the occurrence of gastrointestinal illnesses in your facility.



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Gastrointestinal Illness (GI) Outbreaks

Housekeeping

All health care facilities should have standard operating procedures in place for routine cleaning and infection control protocols. When an illness outbreak occurs or is suspected, those routine procedures should be monitored or intensified to effectively control the spread of communicable diseases. The following guidance is offered to help identify areas that may need additional attention from staff.

Good Hand washing:

Hand washing is the single most effective means of controlling the spread of communicable diseases. During an outbreak employees should wash their hands frequently, and in accordance with 902 KAR 20:300 (6), and strict hand washing policies should be reinforced among staff. In addition, hand washing in these circumstances should always be done:

- After using the restroom
- After smoking, eating or drinking
- After handling garbage or touching any soiled surface
- After cleaning, sweeping or mopping
- Before putting on plastic gloves
- After removing plastic gloves
- After handling soiled linens
- After handling or touching any equipment or surface in a sick resident's room
- Whenever hands are visibly soiled

NOTE: Alcohol sanitizers do not replace good hand washing and may not be effective against norovirus.

Cleaning and Sanitizing:

Cleaning and sanitizing surfaces will help prevent cross-contamination and help interrupt the spread of germs. All hard, non-porous, environmental surfaces should be cleaned and sanitized during an outbreak using an EPA registered sanitizer effective against norovirus. For a complete list of approved sanitizers visit EPA's website:

www.epa.gov/oppad001/list_g_norovirus.pdf

**** NOTE: Some Quaternary ammonia based sanitizers are not effective against norovirus.

Employees should pay particular attention to "high touch" surfaces such as:

- Handrails along hall corridors
- Resident bed rails and medical poles
- Doorknobs and door handles in resident areas
- Toilet handle and lid
- Telephones
- Common living space items such as remote controls, backs of chairs, tables, etc.
- Window blinds/cord pulls
- Walker and wheelchair handles
- Water pitchers and ice buckets

Handling Linens to Prevent and Control Infection Transmission

- It is important that all potentially contaminated linen be handled with appropriate measures to prevent cross-transmission.
- If the facility handles all used linen as potentially contaminated (i.e., using standard precautions), no additional separating or special labeling of the linen is recommended.
- No special precautions (i.e., double bagging) or categorizing is recommended for linen originating in isolation rooms.
- Double bagging of linen is only recommended if the outside of the bag is visibly contaminated or is observed to be wet through to the outside of the bag.
- Alternatively, leak-resistant bags are recommended for linens contaminated with blood or body substances.
- If standard precautions for contaminated linens are not used, then some identification with labels, color coding or other alternatives means of communication is important.
- For the routine handling of contaminated laundry, minimum agitation is recommended, to avoid the contamination of air, surfaces, and persons.
- The risk of environmental contamination may be reduced by having personnel bag or contain contaminated linen at the point of use, and not sorting or pre-rinsing in resident care areas.
- It is important that laundry areas have hand washing facilities and products, as well as appropriate Personal Protective Equipment (PPE) (i.e., gloves and gowns) available for workers to wear if linen sorting is done.
- Laundry equipment should be used and maintained according to the manufacturer's instructions to prevent microbial contamination of the system.
- It is recommended that damp linen is not left in machines overnight.

AAMI (Association for the Advancement of Medical Instrumentation) defines the term "hygienically clean" as "free of pathogens in sufficient numbers to cause human illness."

- Detergent and water physically remove many microorganisms from the linen through dilution during the wash cycle.
- Advances in technology allow modern-day detergents to be much more effective in removing soil and reducing the presence of microbes than those used in the past when much of the research on laundry processing was first conducted.

- Facilities may use any detergent designated for laundry in laundry processing. Further, laundry detergents used within nursing facilities are not required to have stated anti-microbial claims. Facilities should closely follow manufacturer's instructions for laundry detergents used.
- Laundry processing conducted within facilities typically occurs in a low water temperature environment. Many laundry items are composed of materials that cannot withstand a chlorine bleach rinse and remain intact.
- A chlorine bleach rinse is not required for all laundry items processed in low temperature washing environments due to the availability of modern laundry detergents that are able to produce hygienically clean laundry without the presence of chlorine bleach.
- However, a chlorine bleach rinse may still be used for laundry items composed of materials, such as cottons.
- Hot water washing at temperatures greater than 160 degrees F for 25 minutes and low temperature washing at 71 to 77 degrees F (22-25 degrees C) with a 125-part-per-million (ppm) chlorine bleach rinse remain effective ways to process laundry.¹⁰¹
- If a facility chooses to process laundry using a hot water temperature environment, the temperature maintained for 25 minutes should be at or above 160 degrees Fahrenheit (71°C).¹⁰⁰
- Facilities are not required to maintain a record of water temperatures during laundry processing cycles.
- The CDC recommends leaving washing machines open to air when not in use to allow the machine to dry completely and to prevent growth of microorganisms in wet, potentially warm environments.
- Facilities are required to follow manufacturer's instructions for all materials involved in laundry processing (e.g., washing machines; dryers; any laundry detergents, rinse aids, or other additives employed during the laundry process).
- Facilities should also follow manufacturer's instructions for clothing, linens, and other laundry items to determine the appropriate methods to use to produce a hygienically clean product.
- Facilities should also consider a resident's individual needs (e.g., allergies) when selecting methods for processing laundry.
- The CMS, in collaboration with the CDC, has also determined that ozone cleaning systems are acceptable methods of processing laundry.
- Ozone cleaning systems also should be used per manufacturer's instructions.
- If laundry chutes are used, it is recommended that they are properly designed and maintained so as to minimize dispersion of aerosols from contaminated laundry (e.g., no loose items in the chute and bags are closed before tossing into the chute).
- If linen is sent off to a professional laundry, the facility should obtain an initial agreement between the laundry service and facility that stipulates the laundry will be hygienically clean and handled to prevent recontamination from dust and dirt during loading and transport. *For example, an ozone laundry cleaning system is a method which may require a professional laundry service. The facility will need to obtain such an agreement in this instance. Whether laundry*

processing is completed within the facility or outside the facility, facilities should have written policies & procedures which should include training for staff who will handle linens and laundry.

- Standard mattresses and pillows can become contaminated with blood or body fluids during resident care if the integrity of the covers of these items is compromised.
- A mattress cover is generally a fitted, protective material, the purpose of which is to prevent the mattress from becoming contaminated with blood and body fluids.
- A linen sheet placed on the mattress is not considered a mattress cover.
- Patches for tears and holes in mattress covers do not provide an impermeable surface over the mattress. Therefore it is recommended that mattress covers with tears or holes be replaced.
- It is recommended that moisture resistant mattress covers be cleansed and disinfected between residents with an EPA approved germicidal detergent to help prevent the spread of infections, and fabric mattress covers should be laundered between residents.
- Pillow covers and washable pillows should be laundered in a hot water laundry cycle between residents or when they become contaminated with blood or body fluids.
- Discarding mattresses if fluids have penetrated into the mattress fabric and washing pillows and pillow covers in a hot-water laundry cycle will also reduce the risk of indirect contact with infectious agents.¹⁰²

REFERENCES

¹⁰⁰ *Sehulster, L.M., Chinn, R.Y.W., Arduino, M.J., Carpenter, J., Donlan, R., Ashford, D., Besser, R., Fields, B., McNeil, M.M., Whitney, C., Wong, S., Juranek, D., and Cleveland, J. (2003). Guidelines for environmental infection control in health-care facilities. Recommendations from CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Pp.139. Accessed December 10, 2008 from http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/Enviro_guide_03.pdf*

¹⁰¹ *Sehulster, L.M., Chinn, R.Y.W., Arduino, M.J., Carpenter, J., Donlan, R., Ashford, D., Besser, R., Fields, B., McNeil, M.M., Whitney, C., Wong, S., Juranek, D., and Cleveland, J. (2003). Guidelines for environmental infection control in health-care facilities. Recommendations from CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Pp. 139. Accessed December 10, 2008 from http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/Enviro_guide_03.pdf*

¹⁰² *Sehulster, L.M., Chinn, R.Y.W., Arduino, M.J., Carpenter, J., Donlan, R., Ashford, D., Besser, R., Fields, B., McNeil, M.M., Whitney, C., Wong, S., Juranek, D., and Cleveland, J. (2003). Guidelines for environmental infection control in health-care facilities. Recommendations from CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Pp. 140. Accessed December 10, 2008 from http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/Enviro_guide_03.pdf*

Sick Employees Should Stay Home:

- Facilities should have a "Worker's Health Policy" in place and review it at least annually with employees.
- When an employee is ill, the supervisor should be notified.
- If employees are sick with vomiting, diarrhea or nausea, they should stay home.
- Employees should use special care when other people in the home are sick, ex. children or spouse.

Limit the Transfer of Germs Between Sick and Non-Sick Resident Rooms:

- Limit the flow of traffic in and out of ill residents rooms.
- When possible, ill residents should be segregated from well residents during routine activities.
- Dispose of vacuum cleaner bags between sick and non-sick resident areas.

Norovirus Can Be Spread Through Vomitus Or Fecal Contact:

- Remove bulk vomitus or stool and dispose of in the toilet.
- Clean the soiled area with detergent and water.
- For non-porous surfaces follow with a sanitizer effective against norovirus
- Sanitizer should be used at its maximum strength following the manufacturer's instructions.
- The Centers for Disease Control and Prevention recommends that for chlorine bleach sanitizers, maximum strength would be about 1/3 cup of bleach per gallon of water.
- Allow the sanitizer to sit on the area for up to five minutes.
- Carpet or upholstered fabric visibly soiled with vomit or feces can be cleaned with hot water and detergent or steam cleaned.
- Do not dry vacuum.

Food Service Staff

Norovirus can be transmitted and spread through poor food handling practices and contamination of food and/or surfaces.

HANDWASHING:

The single most effective means of controlling the spread of viruses and bacteria in the food service environment is frequent, thorough and effective hand washing

- Wash hands often, with soap and warm water and dry with a disposable or clean, dry towel.
- Wash hands after engaging in any activity that may contaminate them.
- Wash hands after using the restroom.
- Wash hands after handling soiled equipment or utensils.
- Wash hands during preparation as often as necessary to prevent contamination and prevent cross contamination.
- Wash hands between raw and ready-to-eat foods.
- Wash before putting on plastic gloves.
- Wash hands after removing gloves.

MANUAL SANITIZING OF FOOD CONTACT EQUIPMENT:

- Some sanitizers are not effective against norovirus. Check to be sure you are using a sanitizer that is effective against norovirus.
- EPA publishes a list of approved antimicrobial products effective against norovirus at: <http://www.epa.gov/oppad001/chemregindex.htm>
- Regular Unscented Liquid Bleach and many other sodium hypochlorite based compounds are effective against norovirus.
- **Use all products in accordance with manufacturer's labeling directions and at the recommended strength and concentration. Remember some products listed on EPA's list may not be approved for use in a food service area and should be used only in approved areas.**

HEAT SANITIZATION OF EQUIPMENT AND UTENSILS:

- Heat sanitizing dishwashers that meet the regulatory requirement of 180 degrees Fahrenheit are effective against noroviruses.
- Low temperature dish machines that use a sanitizing additive in the final rinse can be used as an alternative.
- The additive should be a sanitizing product that is effective against norovirus.
- Use the correct concentration of sanitizer specified for the chemical agent used.

SANITIZING OF NON-FOOD CONTACT SURFACES:

- Non-porous, hard surfaces such as dining room chairs, tables, bus carts, etc. should be wiped clean with detergent and water and then sanitized with an approved sanitizing agent.
- Use sanitizer at the highest concentration allowed for the intended surface and always in accordance with labeling directions.
- Allow the sanitizer to stand on the surfaces for several minutes to completely kill the virus.
- Personnel protective equipment (PPE), such as disposable gloves and face masks should be worn when handling concentrated cleaners.
- Employees should follow all OSHA guidelines for use as applicable to their facility.

WASH FRUITS AND VEGETABLES THOROUGHLY:

- Raw fruits and vegetables have been known to be a source of norovirus transmission.
- All fruits and vegetables should be thoroughly washed prior to preparation and service.
- Cutting boards and utensils used for the preparation of fruits and vegetables should be cleaned and sanitized before and after preparation.

SICK FOOD WORKERS:

- Facility should have a "Workers Health Policy" in place and review it annually with staff and new employees.
- Staff who have been diagnosed as having a confirmed case of norovirus or who have been exposed to a person living in the same household with a confirmed case of norovirus should be excluded from working in the food service area in accordance with the 2005 FDA Model Food Code.**
- Food workers who are sick with vomiting, diarrhea, yellowing of the skin, sore throat with fever, or with open lesions or cuts should notify their supervisor and should be restricted from work in food service areas in accordance with the 2005 FDA Model Food Code.
- Return to the food service operation of a restricted or excluded employee shall follow the guidance established in the 2005 FDA Model Food Code.
- Staff may contact the local health department for guidance on worker restriction and exclusion.

**** 2005 FDA Model Food Code still being adhered to as per state Food Safety personnel, March, 2013**

LIMIT ACCESS TO UNAUTHORIZED PERSONNEL:

- Unauthorized personnel should not be allowed in the kitchen and food prep areas.
- Ice machines should be cleaned and sanitized at the onset of an outbreak and access to the machine should then be limited to designated food service staff only.
- Ice machines and other common food containers have been implicated in some outbreaks.

Medical Staff, Administrative and Other Non-Medical Personnel

Medical staff, administrative personnel, or other non-medical personnel in the facility can transfer viruses from one person to another if proper precautions are not taken.

NOTIFY OTHERS IMMEDIATELY:

- As soon as a resident or staff member becomes symptomatic, staff should actively begin infection control measures outlined in this guidance.
- Food service, housekeeping, other non-medical personnel, and visitors should be notified when there is a suspected case of norovirus or other communicable disease.
- Appropriate signage and/or notifications should be put into place.
- The Local Health Department should be notified and consulted for control measures.

HANDWASHING IS KEY TO PREVENTION:

- Hand washing should always be performed before and after direct patient care.
- Personnel should always wash their hands when entering a resident room and before handling any resident equipment.
- Staff should wash their hands after coming into contact with the resident's skin, bedding or any equipment inside an ill resident's room.

AVOID UNINTENTIONAL TRANSFER OF GERMS:

- Staff members who are ill should not return to work until they have been without symptoms for 24 hours.
- Group activities at the facility should be limited, at the administrator's discretion.

- Equipment or surfaces that may come into contact with multiple residents such as physical therapy equipment, stethoscope, medical carts, etc. should be cleaned and sanitized routinely to prevent the unintentional transfer of germs.
- Medical and other support staff should use standard precautions, including appropriate personal protective equipment such as masks, disposable gowns or gloves as indicated by the resident's condition and the agency's infection control plan.
- Administrators and medical staff should work together to cohort sick residents by confining them to one area of the building, attended by a single set of staff, if possible.

Laboratory Testing

SUBMIT LABORATORY SPECIMENS FOR DIAGNOSTIC TESTING IN A TIMELY MANNER:

The early recognition of the causative agent of gastroenteritis may limit the impact among other residents and staff. Laboratory confirmation plays a vital role in this determination. Norovirus is often implicated in these outbreaks and medical personnel should review the proper collection and submission of specimens for norovirus testing, as listed below:

Stool — Preferred Specimen for Norovirus Testing:

- **Timing:** Specimen collection for viral testing should begin upon the first recognition of a gastrointestinal outbreak. Any delays in obtaining a specimen for viral testing may limit diagnostic accuracy. Ideally, specimens should be obtained during the acute phase of illness (i.e., within 48 - 72 hours after onset) while the stools are still liquid or semisolid.
- **Number and Quantity:** Ideally, specimens from the first seven to 10 ill persons should be obtained during the acute phase of the illness. Bulk samples (i.e., 10 to 50 mL of stool placed in a sterile stool cup or urine container) are preferred, as are acute diarrhea specimens that are loose enough to assume the shape of their containers.
- **Storage and Transport:** Specimens should be kept refrigerated at 4 degrees Celsius or 39.2 degrees Fahrenheit. Specimens collected over a weekend can be refrigerated and submitted on a regular business day. For transport to the laboratory, they should be bagged, sealed, and sent with frozen refrigerant packs in an insulated, waterproof container. Lab Form 275 should be submitted for each sample with complete demographic information when specimens are submitted to the Kentucky Department for Public Health, Division of Laboratory Services (DLS). This form along with complete shipping instructions can be accessed on the DLS Website at:
<http://chfs.ky.gov/dph/info/lab/>

Note: Raw stool specimens for norovirus should be collected at the same time as collection of specimens for bacterial cultures. While specimens for norovirus testing can be sent to the Division of Laboratory Services, specimens for enteric bacterial testing and Clostridium difficile testing can be sent to your facility's usual referral laboratory. This recommendation will allow for the concurrent testing of both norovirus and other enteric pathogens.

We recommend that no more than 10 raw specimens for norovirus testing be sent to the State Lab for storage and testing per outbreak. Please advise the Reportable Diseases Section (502-564-3261) and the Division of Laboratory Services (502-564-4446, EXT. 4483) prior to sending specimens.