Inspection Report Item 5:
Procedures for responding to vomiting and diarrheal events


When an employee, customer, or other individual vomits or has a diarrheal event in a food establishment, there is a real potential for the spread of harmful pathogens in the establishment. Putting the proper response into action in a timely manner can help reduce the likelihood that food may become contaminated and that others may become ill as a result of the accident.

According to the CDC, Norovirus is the leading cause of foodborne disease outbreaks in the United States.

Effective clean up of vomitus and fecal matter in a food establishment should be handled differently from routine cleaning procedures. It should involve a stricter cleaning and disinfecting process. Some chemicals that are routinely used for sanitizing food-contact surfaces and disinfecting countertops and floors, such as certain quaternary ammonium compounds, may not be effective against Norovirus.

It is therefore important that food establishments have procedures for the cleaning and disinfection of vomitus and/or diarrheal contamination events that address, among other items, the use of proper disinfectants at the proper concentration.

Consumers are at risk of contracting Norovirus illness from direct exposure to vomitus or from exposure to airborne Norovirus from vomitus. Additionally, exposed food employees are also at risk of contracting Norovirus illness and can subsequently transfer the virus to ready-to-eat food items served to consumers.

A clean-up and response plan should address situations where a food employee or other individual becomes physically ill in areas where food may be prepared, stored or served. Once such an episode has occurred, timely effective clean-up is imperative.

When developing a plan that addresses cleaning and disinfection of a vomitus and/or diarrheal contamination event, a food establishment should include specific directions for cleanup:

1) Designate who should cleanup – this should be someone not directly involved in food prep or service. Cleanup employee should wear personal protection – explain what to do with soiled PPE.
2) Describe process for containment and removing soil to prevent contamination of other surfaces.
3) Describe cleaning supplies needed and process to clean. (disposable items are best).
4) Describe how to disinfect (bleach solution is best) any surfaces that may have become contaminated. Steam clean items that cannot be bleached.
5) Describe procedures for the evaluation and disposal of any food or food contact surfaces that may have been exposed to discharges.
6) Describe procedures for disposal of personal protective equipment and direct employees to wash hands before returning to work.
Full Facility Norovirus Cleaning – Reference Document for Food Establishments

- **Before beginning, gather the following necessary supplies:**
  - **Equipment to protect yourself (personal protective equipment):**
    - Disposable gloves
    - Disposable hair cover
    - Disposable shoe covers
    - Disposable gown
    - Disposable face mask (for use if you need to clean up any bodily fluids or when mixing cleaning/disinfectant products)

  - **Clean-Up Kit:**
    - Disposable mop (avoid wooden mops)
    - Mop bucket
    - Disposable towels and cloths
    - Trash bags/plastic bags
    - A disinfectant proven to kill Norovirus

- **Recommended Disinfectant:** Mix a chlorine bleach solution using **non-scented** bleach. Warning: Chlorine bleach may damage some fabrics and surfaces so you should spot test areas before applying the solution.
  - Chlorine Bleach solutions should be freshly mixed just before beginning cleaning procedures.
  - Water should be approximately 75°F. Water temperatures higher than this can decrease the effectiveness of bleach solutions.
  - For **hard surfaces** (e.g. non-porous surfaces, ceramic, sealed countertops, utensils):
    - Bleach solution should contain **1000 ppm** chlorine
    - Add \( \frac{1}{3} \) cup bleach (5.25 - 6.15% sodium hypochlorite) to 1 gallon water
  - For **porous surfaces** (e.g. unsealed concrete or natural stone):
    - Bleach solution should contain **5000 ppm** chlorine
    - Add \( 1 \frac{2}{3} \) cups bleach (5.25 - 6.15% sodium hypochlorite) to 1 gallon water

  - **CONSULT THE PRODUCT LABEL - NOTE THE CONCENTRATION OF BLEACH YOU ARE USING (% SODIUM HYPOCHLORITE). THIS**
DETERMINES THE AMOUNT OF BLEACH YOU MUST ADD TO THE MIXTURE.

- If the bleach you are using is more or less concentrated from the concentrations listed above, consult the manufacturer’s instructions for proper mixing directions.

- You can also use another disinfectant registered as effective against Norovirus by the Environmental Protection Agency (EPA) (see attached list).

- NOT ALL DISINFECTANTS SHOWN ON THE EPA LIST ARE APPROVED FOR USE IN FOOD FACILITIES.

- Make sure that product labels contain language which states that they are approved to be used in FDA food facilities AND that the label provides adequate directions for use in these settings.

- QUATERNARY AMMONIA PRODUCTS ARE LESS EFFECTIVE.¹

- If you have questions, consult the manufacturer for more information on the approval for use of their product on food contact surfaces and/or in food service facilities.

- Any product that will be used to sanitize food contact surfaces must be approved by FDA under 21CFR178.1010. See the following link for a list of approved chemicals:

¹ CDC. Updated Norovirus Outbreak Management and Disease Prevention Guidelines. MMWR 2011;60(RR03)11-15.
Procedure:

- WASH YOUR HANDS

- PUT ON PERSONAL PROTECTIVE EQUIPMENT (change if any item becomes soiled)

- CLEANING
  - Begin with clean equipment and clean supplies.
    - Make sure that cleaning supplies are clean.
    - Begin with fresh cleaning solution in a spray bottle so that the cleaner solution doesn’t become contaminated.
    - If you use a mop and bucket to clean the floor, the mop head should be thrown away and the mop equipment (including handles, mop bucket and wheels, etc.) should be disinfected when finished. Mop equipment can hold bacteria and viruses and can contaminate already-cleaned surfaces.
    - Do not use wooden mops. Some are not sealed and cannot be disinfected properly.
  - Clean
    - Cleaners (also known as detergents) remove dirt and germs off surfaces so they can be rinsed away with water. Cleaning is important as you must make sure dust and dirt are removed from surfaces before disinfecting or the disinfectant will not be effective.
  - Rinse
    - Rinsing is an important part of the cleaning process.

- DISINFECTION
  - Disinfectants are chemical products that destroy or inactivate germs and prevent them from growing. Disinfectants have no effect on dirt, soil, or dust so surfaces MUST be cleaned (as described above) before they are disinfected.
  - Apply disinfectant to all surfaces in the room, paying close attention to frequently-touched areas
    - Change cloth when soiled.
    - Make sure to allow the disinfectant to remain in contact with the surface it is applied to for the appropriate amount of time (this is referred to as “contact time”). Use the manufacturer’s guidelines to determine what the appropriate contact time is.
    - Bleach solutions typically need at least 5 minutes of contact time.
    - If the disinfectant dries before the appropriate contact time has passed, you should re-apply disinfectant to that area.
o RINSE Food Contact Surfaces
  - **BEFORE USE, RINSE ALL FOOD CONTACT SURFACES WITH POTABLE WATER (WATER THAT IS SAFE FOR DRINKING) AFTER THE APPROPRIATE CONTACT TIME HAS PASSED.**
  - IF SURFACES ARE NOT RINSED, LEVELS OF THE DISINFECTANT THAT ARE LEFT BEHIND MAY MAKE PEOPLE SICK.

o Air Dry
  - Allow all surfaces to *air dry*. Do NOT use towels to dry any surfaces as they may re-contaminate equipment.

o Work from clean to dirty surfaces
  - Always begin cleaning in the least dirty areas and clean toward the known, dirtier areas.
  - If you are cleaning up any bodily fluids (such as vomit), you should clean from the edges of the spill toward the center.
  - Bathrooms should be cleaned last.

o Clean from top to bottom
  - Carpets and floors should be cleaned last.
  - Carpets should be cleaned with a chemical disinfectant that is effective against Norovirus (see attached list) and then carpets should be steam cleaned at 158°F for 5 minutes or 212°F for 1 minute for complete inactivation.

o Separate clean from dirty
  - Do not place dirty items with, above, or close to clean items.

o Laundering of dirty linens/clothing
  - Items containing bodily fluids (such as vomit) that need to be laundered should be double-bagged.
  - Handle laundry carefully and avoid shaking it as this can spread the virus.
  - Launder with hot water in a Virkon™ solution or other laundry detergent effective against Norovirus (see attached list) for the longest available cycle length. Laundry should then be machine dried.

- WHEN FINISHED, REMOVE ALL PERSONAL PROTECTIVE EQUIPMENT AND PLACE IN A TRASH BAG
• **WASH YOUR HANDS THOROUGHLY WITH SOAP AND WATER IMMEDIATELY AFTER DISPOSING OF TRASH**
  - Hand sanitizers may not be effective against Norovirus and should not be used as a substitute for hand washing.

• **CONTACT YOUR INSPECTOR FOR FINAL APPROVAL OF NOROCLEAN PROCEDURES BEFORE RE-OPENING TO THE PUBLIC.** Contact information for inspectors by county can be found at: [http://dia.iowa.gov/page27.html](http://dia.iowa.gov/page27.html)

• **Resources:**
## US Environmental Protection Agency
### Office of Pesticide Programs

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

#### 16-Jun-16

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46781-12  CAVIDECIDE 1
56392-7  DISPATCH HOSPITAL CLEANER DISINFECTANT WITH BLEACH
56392-8  Dispatch Hospital Cleaner Disinfectant Towels with Bleach
65402-3  VIGOROX SP-15 ANTIMICROBIAL AGENT
67619-8  CPPC Ultra Bleach 2
67619-12  CPPC TSUNAMI
67619-13  CPPC STORM
67619-17  SHIELD
67619-20  REX
67619-21  CARB
67619-24  BLONDIE
67619-25  DAGWOOD
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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
71554-7  VIRKON
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74559-8  Accel 5 RTU
74986-4  SELECTROCIDE 2L500
82972-1  VITAL-OXIDE
84361-1  URTHIPRO
84526-1  SANOSIL S010
87518-1  HSP20
88089-4  PERIDOX RTU (TM)