NOROVIRUS

ADVICE ON MANAGING INCIDENTS & OUTBREAKS IN INDEPENDENT SECTOR CARE HOMES
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action for care homes</td>
<td>3-5</td>
</tr>
<tr>
<td>Norovirus guidance for care homes</td>
<td>6-7</td>
</tr>
<tr>
<td>Bristol Stool Chart</td>
<td>8</td>
</tr>
<tr>
<td>Outbreak poster</td>
<td>9</td>
</tr>
<tr>
<td>Virology laboratory request form</td>
<td>10</td>
</tr>
<tr>
<td>Daily update form</td>
<td>11</td>
</tr>
<tr>
<td>Outbreak record sheet for residents</td>
<td>12</td>
</tr>
<tr>
<td>Information for care workers/staff</td>
<td>13</td>
</tr>
<tr>
<td>Information for residents</td>
<td>14</td>
</tr>
<tr>
<td>Norovirus frequently asked questions</td>
<td>15-17</td>
</tr>
<tr>
<td>Summary/Final Outbreak report</td>
<td>18-19</td>
</tr>
<tr>
<td>Cleaning guidance for Care Homes</td>
<td>20-27</td>
</tr>
<tr>
<td>Collecting and sending specimens during an outbreak</td>
<td>28</td>
</tr>
<tr>
<td>Hand Hygiene Leaflet</td>
<td>29</td>
</tr>
<tr>
<td>7-step Hand Hygiene poster</td>
<td>31</td>
</tr>
<tr>
<td>5 Moments for Hand Hygiene poster</td>
<td>32</td>
</tr>
<tr>
<td>Laundry Information Leaflet</td>
<td>33-34</td>
</tr>
<tr>
<td>Duty Room contact details</td>
<td>35</td>
</tr>
</tbody>
</table>
Action to be taken during an increase of diarrhoea and/or vomiting in a care home

1. The most common cause of gastrointestinal infection in care homes is Norovirus (also known as winter vomiting virus). Norovirus is transmitted from person-to-person via the airborne or faecal-oral route and contaminated environment or equipment. Cases of diarrhoea and vomiting are regarded as infectious until 48 hours after symptoms stop.

2. The definition of a potential norovirus outbreak is ‘two or more separate episodes of diarrhoea and/or vomiting that are not explained by another diagnosis or process (such as known colitis, enteral feeding, laxative use, etc.) among two or more residents or staff members associated with the care home’.

3. If there are two or more symptomatic residents or staff members over a short period of time, notify the Public Health Agency Duty Room (03005550119) and the Regulation Quality Improvement Authority (RQIA). If the care home is a Trust facility, the Trust Infection Control Team must be informed.

4. Individual GPs of affected residents should be informed and should be asked to review residents as required, depending on clinical condition/medical status.

5. Residents with symptoms of diarrhoea and/or vomiting should be nursed in their own rooms. If there is shared accommodation within the care facility, potential options to group residents (known as cohorting) may be explored with the Duty Room, Public Health Agency or with the Trust Infection Control Team if the care home is a Trust facility.

6. Movement of residents should be avoided while the outbreak is on-going, unless this is medically required. If a resident is transferring to another service or to hospital, the receiving unit/service must be informed of the outbreak in advance, even if the resident is symptom free. The ambulance and/or transfer service must also be advised in advance, so that they can take the necessary precautions.

7. Hand washing is the single most important measure in preventing further spread of infection.

8. All staff and visitors should be regularly reminded to wash their hands before entering and leaving the facility, and before entering and leaving each resident’s room.

9. Residents who have soiled themselves. When disposing of excreta or body
secretions/fluids, or when handling soiled linen and clothes, wash hands after removing gloves with liquid soap and water, dry hands thoroughly with disposable hand towels.

11. Movement of staff between floors and wings in the care facility should be restricted. Staff should be advised not work in other care homes or other healthcare settings while the outbreak is on-going.

12. If staff members become symptomatic, they must be sent off duty and specimens should be obtained. Staff must not return to work until they have been without symptoms for 48 hours. Note: a 48 hour exclusion period for staff is advised in current clinical guidance, however a 72 hour exclusion period should be considered for staff who handle food in the care home.

13. Stool and/or vomit samples should be obtained from symptomatic residents and staff. These should be sent for laboratory testing to help establish the cause of the outbreak or incident.

14. Symptomatic residents must have separate toilet facilities (i.e. toilet or dedicated commode) which have easy access to hand washing facilities.

15. Stop all bowel medicines (i.e. laxatives and anti-diarrhoeal drugs), unless instructed NOT to do so by GP.

16. Dispose of excreta into the toilet or bedpan washer; process commode pots in a bedpan washer. Where this facility is not available, care must be taken when cleaning commode pots. Complete this process in a designated area with a deep sink using detergent and hot water followed by sodium hypochlorite/chlorine dioxide and then dry with disposable towel.

17. Clean, decontaminate and dry commode chairs after use. The seat, back, arms and frame should be cleaned. Particular attention should be given to cleaning the underside of the commode frame and arms.

18. Linen which has been contaminated with faeces or vomitus should be placed in a water-soluble bag and transported to the laundry (without delay). Do not manually sluice or hand-wash linen. Programme the washing machine to the pre-wash/sluice cycle - follow this with a hot wash (as hot as possible suitable to the manufacturer’s instructions on the garment label).

19. Deal with spillages of body fluids immediately. Meticulous environmental cleaning is essential, particularly in toilet and bathroom areas and in other areas which are shared.

20. Regularly clean (at least 3 times per day) ‘touch’ points such as toilet flush, door handles, grab-rails, taps and light-switches with warm soapy water followed by a Hypochlorite/chlorine dioxide solution (e.g. bleach 1:1000,
Milton, Chlor Cleanse, Titan, Difficil-S etc). Clean carpets and soft furnishings with hot water.

21. Serve hot cooked food during outbreaks. Remove exposed food from communal areas, e.g. fruit in bowls.

22. Admissions and transfers of new residents* to the home is a joint discussion between the transferring hospital staff & the Care Home staff, based on risk assessment. *Note: a new resident is a new admission who has not previously been resident in your care home.

23. If an existing resident** is discharged from acute services (i.e. transferred back from hospital care), they can be received into their own single room in the home after it has been terminally cleaned (if required). Residents received from acute services should be nursed in isolation in their own room until 48 hours after the last symptoms among residents in the facility (i.e. when the outbreak is concluded). **Note: an existing resident is someone who is usually resident in your care home and who has been transferred to another service (e.g. acute hospital services) for a period of care.

24. Arrangements should be agreed (including additional staff as required) to complete a deep-clean of the home once outbreak has been declared over. This declaration is confirmed by the home owner/manager to the Duty Room, Public Health Agency (using the final summary report contained within this pack).
Norovirus guidance for care homes

Norovirus also known as the winter vomiting disease is mainly found in the community. It causes diarrhoea and vomiting. Norovirus is a relatively mild illness. The elderly population are one of the most vulnerable, along with health care workers.

What is Norovirus?
Noroviruses are a group of viruses that cause stomach bugs. The incubation period is between 12-48 hours, with the illness lasting between 1-3 days.

What are the signs and symptoms?
Signs and symptoms include vomiting, diarrhoea, nausea, headache, pyrexia, myalgia (muscle pain), and abdominal pain.

How is the Norovirus treated?
There is no specific treatment for the Norovirus apart from letting it run its course and drinking plenty of fluids.

How is it spread?
The virus is easily transmitted from one person to another. It can be transmitted by contact with another infected person, or by eating contaminated food or water.

How can these outbreaks be stopped?
Outbreaks can be difficult to control and long-lasting because Norovirus is easily transmitted from one person to another and the virus can survive in the environment. The most effective way to respond to an outbreak is to clean and disinfect contaminated areas, to maintain effective hand hygiene measures using liquid soap and water and disposable hand towels, using the 7 step technique and to provide advice on food handling. Those affected should not handle any food until 72 hours after their last symptom.

Are there any long-term effects?
No, there are no long-term effects from Norovirus; however the elderly population are at risk from dehydration.

How should residents with Norovirus be cared for?
Those who have been infected should be isolated for 48 hours after their symptoms have ceased. Residents should be encouraged or helped to drink plenty of fluids to prevent dehydration. Stool samples should be obtained from residents or staff with the illness. Gloves and aprons should be worn when dealing with any bodily fluids and effective hygiene measures using liquid soap and water and disposable hand towels, using the 7 step technique should be used when dealing with patients or contaminated areas.
Laundry and cleaning
Water-soluble bags should be used for infected laundry and these items should be washed separate to other items, at the hottest temperature possible for the materials. Frequent cleaning of touch points with a hypochlorite solution (1000 ppm) using two or three step technique should be undertaken.

What if staff are infected?
All symptomatic staff should be excluded from work immediately until 48 hours (72 hours for food handlers) after their last symptom. They should be encouraged to use effective hand hygiene measures using liquid soap and water and disposable hand towels, using the 7 step technique and drink plenty of fluids.

Who do we tell?
Posters should be placed around the home informing visitors of the outbreak to encourage hand washing and to reduce unnecessary visits. When two or more cases of diarrhoea have been identified it is important to contact the Duty Room, Public Health Agency and the Regulation Quality Improvement Authority (RQIA) and the residents GP. In addition, if the care home is a Trust facility, contact the Trust Infection Control Team. If a patient is admitted to hospital, the hospital should be informed of an outbreak of diarrhoea and vomiting within the home.
The Bristol stool chart / scale is a medical aid to classify faeces into seven groups. It was developed by K.W. Heaton and S.J. Lewis at the University of Bristol and was first published in the Scandinavian Journal of Gastroenterology in 1997. The form of the stool depends on the time it spends in the colon.

Types 1 and 2 indicate constipation
Types 3 and 4 are the easiest to pass
Types 5 and 6 may indicate diarrhoea
Type 7 may be a sign of food poisoning
ALL VISITORS
IMPORTANT NOTICE

- If you/or someone you live with, has been suffering from vomiting or diarrhoea you must not visit.

- Instead of visiting please phone the nurse in charge of the home to make an enquiry.

- Wash your hands before and after visiting your relative or friend.

- In the current circumstances we would recommend that babies and children are discouraged from visiting.

- Please avoid visiting more than one relative/friend

Thank you for your cooperation
**Request form for investigation of potential Norovirus outbreaks**  v2.0  2010

Regional Virus Laboratory, Kelvin Building, Royal Hospitals, Belfast BT12 6BA.  Phone 028 90632662  Fax 028 90634803

**Date**_________________

**Location of outbreak (ward & institution)**

For residential homes etc. specify the GP (name & cypher no.) so that results can be reported

Specimens enclosed □  to follow □  already sent □  (write names below if known) Tel no. for reporting results________________

<table>
<thead>
<tr>
<th>Name</th>
<th>DOB</th>
<th>Source (ward / GP)</th>
<th>Specimen date</th>
<th>Specimen type (vomit / faeces)</th>
<th>Specimen number &amp; test code</th>
<th>Result (RVL use only)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Authorisation by Microbiologist or Infection Control**  Signature: ___________________ Name: ___________________

- Send faeces or vomit specimens NOT environmental or food samples
- Do not send more than 6 specimens from any outbreak
- Send only one specimen from each patient
- Samples can be sent on more than one outbreak form
- This form may be faxed to RVL in advance of specimens
- Subsequent additional forms for further patients can be faxed
Residential/Nursing Home Daily Update Form

Please complete daily and email pha.dutyroom@hscni.net before 12 midday

Date: _______________ Nursing Home: ________________________________

Contact Number: __________ Completed by: ________________________

New Cases today:

Residents (num): _______________ Date / Time: ______________

Staff (num): _________________ Date / Time: _________________

Symptomatic clients today: ________________________________

Total Number affected including new cases to date:

Patients: ____________
Staff: ________________

Number of specimens sent to date: _______________
Results: __________________

Nursing home symptom free status – How many hours?
______________________________

Any other details – e.g. terminal clean, re-opening etc

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

File in appropriate nursing home file and give to Admin staff

Admin staff: - update Board, Outbreak excel sheet.
Please complete daily and email to pha.dutyroom@hscni.net before 12 midday

OUTBREAK RECORD: RESIDENT DETAILS
Name and address of Residential / Nursing Home ______________________________________

<table>
<thead>
<tr>
<th>Name of Patient</th>
<th>Location (block/wing)</th>
<th>Date of Birth</th>
<th>Date of Onset</th>
<th>Symptoms D V</th>
<th>Patient on antibiotics/laxatives</th>
<th>Date of specimen sent</th>
<th>Date symptoms ended</th>
<th>Results</th>
<th>Patient Outcome e.g. Hospitalised</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diarrhoea (D)
Vomiting (V)
Information for healthcare workers

Gastroenteritis due to Norovirus

Noroviruses are a group of viruses that are the most common cause of gastroenteritis. There are many different strains of Norovirus, and immunity is short-lived. In the past, Noroviruses have also been called ‘winter vomiting viruses’, ‘small round structured viruses’ or ‘Norwalk-like viruses’.

Transmission occurs by contact with an infected person; from aerosols of projectile vomit, by faecal-oral spread and by contact with contaminated surfaces or objects.

Outbreaks can be difficult to control and long-lasting because Norovirus is easily transmitted from one person to another and the virus can survive in the environment. Outbreaks tend to affect people who are in semi-closed environments such as hospitals, nursing homes etc.

The most effective way to respond to an outbreak is to institute good hygiene measures including hand-washing and disinfect contaminated areas, these guidance notes provide further advice and control measures.

Criteria for suspecting an outbreak is due to Norovirus

- Short incubation (15 – 48 h)
- Illness duration 12-60h
- Vomiting in > 50% symptomatic patients
- Patients and staff affected
**Information for Residents**

**What is Norovirus?**

Norovirus is a frequent cause of diarrhoea and vomiting in the community and is most common during the winter. It is some-times called ‘winter vomiting disease’.

**Why is it a problem?**

Norovirus causes symptoms of ‘gastric flu’. It lasts 2-3 days and the person will have diarrhoea and/or vomiting. Some people may have a raised temperature, headaches and aching limbs. The illness is usually mild in nature and gets better without antibiotics. Norovirus does however spread very easily within a care home due to the close contact between residents and staff. Large numbers of residents and staff can be involved and it is important to stop the illness spreading around the home or to relatives, friends and visitors.

**How does this affect me?**

If you become unwell in the care home you may be moved to a side room or to an area with other residents with the same illness. You should have as few visitors as possible and they will be invited to wash their hands using liquid soap and water and disposable hand towels it is vital for visitors to wash their hands before and after seeing you.

**Will I need treatment?**

Antibiotics are not needed to treat Norovirus; the main treatment is making sure you drink plenty of fluid. If you develop diarrhoea and vomiting a stool/vomit sample may be sent to the laboratory for testing. Once the illness has resolved no further action is necessary and your treatment will continue as before.

**Can I have visitors?**

Yes you can have visitors. Children should be discouraged from coming to visit you, as they are particularly susceptible to the virus. Friends or relatives that are unwell or suffering from diarrhoea and vomiting themselves should refrain from visiting. If you have any concerns about someone visiting please take advice from the nurse in charge.
Frequently asked Questions

What are Noroviruses?

Noroviruses are a group of viruses that are the most common cause of Gastroenteritis (stomach bugs) in Northern Ireland. In the past, Noroviruses have also been called ‘winter vomiting viruses’, ‘small round structured viruses’ or ‘Norwalk-like viruses’.

How does Norovirus spread?

The virus is easily transmitted from one person to another. It can be transmitted by contact with an infected person; by consuming contaminated food or water or by contact with contaminated surfaces or objects.

What are the symptoms?

The symptoms of Norovirus infection will begin around 12 to 48 hours after becoming infected. The illness is self-limiting and the symptoms will last for 12 to 60 hours. Symptoms may start with the sudden onset of nausea followed by projectile vomiting and watery diarrhoea. Some people may have a raised temperature, headaches and aching limbs. Most people make a full recovery within 1-2 days, however some people (usually the very young or elderly) may become very dehydrated and sometimes require hospital treatment.

Why does Norovirus often cause outbreaks?

Norovirus often causes outbreaks because it is easily spread from one person to another and the virus is able to survive in the environment for many days. There are many different strains of Norovirus, and immunity is short-lived, outbreaks may affect more than 50% of susceptible people. Outbreaks usually affect people who are in semi-closed environments such as hospitals, nursing homes, schools and cruise ships.

How can these outbreaks be stopped?

Outbreaks can be difficult to control and long-lasting because Norovirus is easily transmitted from one person to another and the virus can survive in the environment.
The most effective way to respond to an outbreak is to clean and disinfect contaminated areas, to establish good hygiene, including hand washing using liquid soap and water and disposable hand towels, and to provide advice on food handling. Those who have been infected should be isolated for up to 48 hours after their symptoms have ceased.

(Food handlers should refrain from working until they are 72 hours symptom free).

**How is Norovirus treated?**

There is no specific treatment for Norovirus. It is important to drink plenty of fluids to prevent dehydration.

**If I’m suffering from Norovirus, how can I prevent others from becoming infected?**

Meticulous hand and environmental hygiene is important in preventing others becoming infected – this includes thorough hand washing using liquid soap and water and disposable hand towels. Food preparation should also be avoided until 72 hours after the symptoms have subsided.

**Who is at risk of getting Norovirus?**

There is no one specific group who are at risk of contracting Norovirus – it affects people of all ages. The very young and elderly should take extra care if infected, as dehydration is more common in these age groups. Outbreaks of Norovirus are reported frequently in semi-closed institutions such as hospitals, schools, residential and nursing homes and hotels. Anywhere that large numbers of people congregate for periods of several days provides an ideal environment for the spread of the disease. Healthcare settings tend to be particularly affected by outbreaks of Norovirus. A recent study done by the Health Protection Agency shows that outbreaks are shortened when control measures within healthcare settings are implemented quickly, such as closing wards to new admissions, isolating infected residents in their rooms within 4 days of the beginning of the outbreak and implementing strict hygiene using liquid soap and water and disposable hand towels.
How common is Norovirus?

Norovirus is not a Notifiable disease so reporting is done on a voluntary basis. It is estimated that Norovirus affects between 600,000 and a million people in the UK each year.

Are there any long-term effects?

No, there are no long-term effects from Norovirus.

What can be done to prevent infection?

It is impossible to prevent infection; however, taking good hygiene measures. Hand hygiene using liquid soap and water and disposable hand towels and meticulous cleaning of the environment and frequently touched surfaces is vital. Certain measures can be taken in the event of an outbreak, including the implementation of basic hygiene and food handling measures and prompt cleaning and disinfection of contaminated areas, and the isolation of those infected for 48 hours after their symptoms have ceased.

(Food handlers should refrain from working until they are 72 hours symptom free).
# Summary Outbreak Report

**Residential and Nursing Home**

*(To be completed when Outbreak is declared over)*

## Home Details:

- **Name:**
- **Address:**
- **Telephone No.:**
- **E-mail:**

<table>
<thead>
<tr>
<th>Number of Residents in Home at time of Outbreak</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name of Staff Member responsible for Infection Control</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Nurse in Charge</strong></td>
<td></td>
</tr>
</tbody>
</table>

## Outbreak Summary

- **Date Outbreak Declared:**
- **Notified to:** *(name of person at Public Health Agency)*
- **Number of Residents ill:**
- **Number of Staff ill:**
- **Number of Persons Admitted to Hospital:**
- **Number of Persons Deceased:**

- **Main Symptoms: (please list)**

<table>
<thead>
<tr>
<th>Number of Samples Obtained:</th>
<th>Vomit:</th>
<th>Diarrhoea:</th>
</tr>
</thead>
</table>

## Results

- **Was the virus/organism detected:**
  - If yes, state results
<table>
<thead>
<tr>
<th>Control Measures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main measured taken to contain outbreak (please list):</td>
<td></td>
</tr>
<tr>
<td>Any additional information:</td>
<td></td>
</tr>
</tbody>
</table>

Completed by: _______________________________

Job title: _______________________________

Date: _______________________________

This form should be competed and returned to:

**Duty Room**  
**Public Health Agency**  
**12-122 Linenhall Street**  
**Belfast**  
**BT2 8BS**
Cleaning Guidance for Care Environments

**Introduction**

Each care facility should have written protocols to guide routine general cleaning together with a written cleaning schedule that ensures all areas of the environment are regularly cleaned to a satisfactory standard. Staff undertaking cleaning should follow agreed protocols which are clearly set out. Staff should have access to adequate resources and equipment to achieve required standard of cleaning. COSHH regulations should always be adhered to and staff should use appropriate personal protective equipment (PPE) to protect themselves at all times.

**Cleaning** is a process that removes visual dirt and contamination and many micro-organisms. Warm water and detergent should be used and most of the time cleaning is effective at decontaminating both equipment and the environment. However in certain situations (e.g. during an outbreak or increased incidence of infection or in the case of *Clostridium difficile* infection), surfaces and equipment require both cleaning and disinfection.

**Disinfection** is a process that reduces the number of germs to a level at which they are not harmful. It is only effective if surfaces and equipment have been cleaned thoroughly with detergent and water beforehand (if a combined detergent/disinfectant product is not used). Warm water and detergent (diluted as per manufactures’ instructions) should be used to clean hard surfaces followed by disinfection with 1000ppm (0.1%) chlorine releasing agent/hypochlorite solution or chlorine dioxide solution (diluted as per manufactures’ instructions). The hypochlorite or chlorine dioxide solution will kill both bacteria and viruses provided it is used as per manufactures’ instructions. Hypochlorite solutions are corrosive; it is recommended the solution is rinsed off commodes, mattresses and stainless steel surfaces with warm water at the end of the process. Some chlorine dioxide solutions do not need to be rinsed off.

**What is routine general cleaning?**

Routine cleaning of the environment should be undertaken at least **daily** within the care facility. Thorough cleaning with neutral detergent and water is the most common means of removing micro-organisms and dirt. If soiling (with blood and/or bodily fluids) is evident then general cleaning should be followed with a disinfectant clean - using a chlorine releasing product/sodium hypochlorite or a chlorine dioxide solution at the appropriate concentration and for the correct contact time. If using a hypochlorite solution the area should then be rinsed and dried. Some chlorine dioxide solutions do not need to be rinsed off.

**Always ensure that surfaces that are being disinfected are compatible with the product being used.**
**What is Enhanced Cleaning?**

During an outbreak of infection or an unusual increase in incidence of a particular organism, enhanced routine cleaning (**minimum twice daily**) is recommended. This will entail cleaning/disinfection of the environment including frequently touched surfaces, and any area/piece of equipment that may potentially be contaminated. Depending on the type of outbreak in the care facility, certain areas will require more frequent cleaning and disinfection e.g. sanitary areas will require more frequent cleaning and disinfection during an outbreak of gastrointestinal infection.

Note: Examples of frequently touched surfaces are-bed tables, bed rails, the arms of chairs, sinks, call bells, door handles and push plates.

**What is Terminal Cleaning?**

**Terminal cleaning** is the thorough cleaning/disinfection of all surfaces including floors and re-useable equipment either within the whole care facility or within a particular part of the facility (e.g. an individual ward/department/unit). This may be required in the following scenarios:

- Following an outbreak or increased incidence of infection
- Following discharge, transfer or death of individual patients who have had a known infection – **individual patient room/bay/unit**
- Following isolation/contact precaution nursing of a patient – **individual patient room/bay/unit**

A terminal clean will generally be commenced following discussion and agreement between the Infection Prevention & Control Team and the nurse or manager in charge of the ward/unit/facility. The terminal clean should not commence until the relevant room/area has been fully vacated.

Note: The cleaning schedule in use in the facility should clearly advise which member of staff is responsible for cleaning different areas of the room/areas included in the terminal clean.

**Note:** In addition to the above some facilities/organisations employ the use of other technologies when doing terminal cleans (e.g. Steam, vaporised hydrogen peroxide). This is an additional step in the cleaning process which is undertaken in some organisations but should not substitute the physical decontamination of the environment/equipment with detergent & water and disinfectant.
Terminal cleaning procedure:

- Gather all equipment required for the terminal clean to the point of use i.e. mop bucket, shaft and mop head/ disposable colour coded cloths/disposable roll/yellow clinical waste bags and tags/alginate& red bags/wet floor sign/vacuum cleaner fitted with a HEPA filter.

- Don Personal Protective Equipment (PPE) - disposable apron and gloves - before entering the room, discard all disposables in the room/bed space/unit (e.g. hand towels, magazines, bottles, toilet rolls, etc.) All materials must be treated as clinical waste. Dispose of this waste, remove PPE and decontaminate hands.

- On commencing the terminal clean don PPE as before.

- Prepare cleaning solutions in a container (dilution as per manufacturer’s instruction). Do not mix chemicals and only use a cleaning product provided by your employer. It is important to follow the manufacturer’s guidelines for dilution of the product and contact time.

- Ventilation of the area/room being cleaned must be adequate; if there is no window, the door should be left open when applying the hypochlorite/chlorine dioxide solution. Please note that COSHH regulations must be adhered to when using chemical disinfectants.

- Prepare rinse water to rinse all items following cleaning and disinfecting (if rinsing is required) before drying. In particular it is important to rinse chlorine containing solutions from stainless steel surfaces to prevent corrosion.

- Use disposable cloths/paper roll for cleaning throughout the terminal clean. Where available and appropriate use disposable mop heads - after use these should be disposed into clinical waste bag prior to exiting the area/room.

- Ensure that PPE is changed when moving from one room/area to another and disposed PPE into clinical waste.

- Always decontaminate your hands after removing and disposing of PPE.
Terminal cleaning regime:

<table>
<thead>
<tr>
<th>Using neutral detergent and water followed by a sodium hypochlorite solution</th>
<th>Using a combined detergent and sodium hypochlorite solution</th>
<th>Using a chlorine dioxide solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove soft furnishings (bedclothes, curtains if applicable) and place in a water soluble bag and into a red linen bag. Process all linen, laundry etc. as infected linen.</td>
<td>Remove soft furnishings (bedclothes, curtains if applicable) and place in a water soluble bag and into a red linen bag. Process all linen, laundry etc. as infected linen.</td>
<td>Remove soft furnishings (bedclothes, curtains if applicable) and place in a water soluble bag and into a red linen bag. Process all linen, laundry etc. as infected linen.</td>
</tr>
<tr>
<td>Some curtains may require specialist cleaning. The dry-cleaning specialist should be informed that the curtains have come from an outbreak situation.</td>
<td>Some curtains may require specialist cleaning. The dry-cleaning specialist should be informed that the curtains have come from an outbreak situation.</td>
<td>Some curtains may require specialist cleaning. The dry-cleaning specialist should be informed that the curtains have come from an outbreak situation.</td>
</tr>
<tr>
<td>Take down blinds (if appropriate) and clean using a prepared solution of neutral liquid detergent in warm water (dilution as per manufacturer’s instruction). Continue by wiping with a solution of 1000ppm (0.1%) sodium hypochlorite solution (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Take down blinds (if appropriate) and clean using a prepared solution of combined detergent and hypochlorite (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Take down blinds (if appropriate) and clean using a prepared solution of chlorine dioxide (dilution as per manufacturer’s instruction).</td>
</tr>
<tr>
<td>Commence cleaning of high level surfaces. Clean first with a solution of neutral detergent and warm water (dilution as per manufacturer’s instruction). Continue by wiping with a solution of 1000ppm (0.1%) sodium hypochlorite solution (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Commence cleaning of high level surfaces using a prepared solution of combined detergent and hypochlorite (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Commence cleaning of high level surfaces using a prepared solution of chlorine dioxide (dilution as per manufacturer’s instruction).</td>
</tr>
</tbody>
</table>
**High level cleaning will include:** Curtain rails/tracks /high level window ledges and frames/ screen rail if present /walls /television (stands and leads)/top of wardrobes units/light fittings/lampshades and any other high level equipment.

If appropriate.

<table>
<thead>
<tr>
<th>Place bed in horizontal/flat position. Clean first with a solution of neutral detergent and warm water (dilution as per manufacturer’s instruction). Continue by wiping with a solution of 1000ppm (0.1%) sodium hypochlorite solution (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</th>
<th>Place bed in horizontal/flat position. Clean using a prepared solution of combined detergent and hypochlorite (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</th>
<th>Place bed in horizontal/flat position. Clean using a prepared solution of chlorine dioxide (dilution as per manufacturer’s instruction).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commence cleaning of furniture, fixtures and fittings in the area. Radiator covers must be removed to permit cleaning of the radiator. Cleaning will include, locker, table, chairs, stool, lamp, tops of oxygen tanks and suction equipment, wardrobe, sink, mirror, doors, door handles, bin (inside and out), hand towel holder (inside and out), clean using a solution of neutral detergent and warm water (dilution as per manufacturer’s instruction). Continue by wiping with a solution of 1000ppm (0.1%) sodium hypochlorite solution.</td>
<td>Commence cleaning of furniture, fixtures and fittings in the area. Radiator covers must be removed to permit cleaning of the radiator. Cleaning will include, locker, table, chairs, stool, lamp, tops of oxygen tanks and suction equipment, wardrobe, sink, mirror, doors, door handles, bin (inside and out), hand towel holder (inside and out), clean using a prepared solution of combined detergent and hypochlorite (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Commence cleaning of furniture, fixtures and fittings in the area. Radiator covers must be removed to permit cleaning of the radiator. Cleaning will include, locker, table, chairs, stool, lamp, tops of oxygen tanks and suction equipment, wardrobe, sink, mirror, doors, door handles, bin (inside and out), hand towel holder (inside and out), clean using a prepared solution of chlorine dioxide (dilution as per manufacturer’s instruction).</td>
</tr>
<tr>
<td>(dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Please note that oxygen &amp; suction connections should be changed and single patient use equipment should be discarded and replaced with new.</td>
<td>Please note that oxygen &amp; suction connections should be changed and single patient use equipment should be discarded and replaced with new.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Please note that oxygen &amp; suction connections should be changed and single patient use equipment should be discarded and replaced with new.</td>
<td>Please note that oxygen &amp; suction connections should be changed and single patient use equipment should be discarded and replaced with new.</td>
<td>Please note that oxygen &amp; suction connections should be changed and single patient use equipment should be discarded and replaced with new.</td>
</tr>
<tr>
<td>Hospital environments do not normally contain soft furnishings; however if applicable, soft furnishings must be steam cleaned if the fabric can withstand required temperature. Steam cleaning not only removes dust and debris but also uses a high temperature to achieve decontamination. Consideration should be given to industrial steam clean and records should confirm that all soft furnishings/carpeted areas have been cleaned using this method.</td>
<td>Hospital environments do not normally contain soft furnishings; however if applicable, soft furnishings must be steam cleaned if the fabric can withstand required temperature. Steam cleaning not only removes dust and debris but also uses a high temperature to achieve decontamination. Consideration should be given to industrial steam clean and records should confirm that all soft furnishings/carpeted areas have been cleaned using this method.</td>
<td>Hospital environments do not normally contain soft furnishings; however if applicable, soft furnishings must be steam cleaned if the fabric can withstand required temperature. Steam cleaning not only removes dust and debris but also uses a high temperature to achieve decontamination. Consideration should be given to industrial steam clean and records should confirm that all soft furnishings/carpeted areas have been cleaned using this method.</td>
</tr>
<tr>
<td>Commence cleaning of toilet if cleaning an ensuite. Clean all fixtures and fittings clean using a solution of neutral detergent and warm water (dilution as per manufacturer’s instruction). Continue by wiping with a solution of 1000ppm (0.1%) sodium hypochlorite solution (dilution as per manufacturer’s instruction), rinse and dry if appropriate. Cleaning will include sink, mirror, towel holder, toilet roll holder, bin (inside and out), door handle and toilet bowl and cistern. Clean and rel ine bin. Replenish supplies of toilet</td>
<td>Commence cleaning of toilet if cleaning an ensuite. Clean all fixtures and fittings using a prepared solution of combined detergent and hypochlorite (dilution as per manufacturer’s instruction), rinse and dry if appropriate. Cleaning will include sink, mirror, towel holder, toilet roll holder, bin (inside and out), door handle and toilet bowl and cistern.</td>
<td>Commence cleaning of toilet if cleaning an ensuite. Clean all fixtures and fittings using prepared solution of chlorine dioxide (dilution as per manufacturer’s instruction). Cleaning will include sink, mirror, towel holder, toilet roll holder, bin (inside and out), door handle and toilet bowl and cistern. Clean and rel ine bin. Replenish supplies of toilet</td>
</tr>
<tr>
<td>Task</td>
<td>Task</td>
<td>Task</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Cleaning will include sink, mirror, towel holder, toilet roll holder, bin (inside and out), door handle and toilet bowl and cistern. Clean and reline bin. Replenish supplies of toilet rolls and soap.</td>
<td>Clean and reline bin. Replenish supplies of toilet rolls and soap.</td>
<td>rolls and soap.</td>
</tr>
<tr>
<td>Damp mop floor using a solution of neutral detergent and warm water (dilution as per manufacturer’s instruction). Continue by wiping with a solution of 1000ppm (0.1%) sodium hypochlorite solution (dilution as per manufacturer’s instruction), rinse and dry if appropriate. Ensure that surfaces that are being disinfected using a chlorine based product are compatible with the product being used and rinsed. Skirting boards must be cleaned thoroughly.</td>
<td>Damp mop floor using a prepared solution of combined detergent and hypochlorite (dilution as per manufacturer’s instruction), rinse and dry if appropriate. Ensure that surfaces that are being disinfected using a chlorine based product are compatible with the product being used and rinsed. Skirting boards must be cleaned thoroughly.</td>
<td>Damp mop floor using a prepared solution of chlorine dioxide (dilution as per manufacturer’s instruction). Ensure that surfaces that are being disinfected using a chlorine dioxide product are compatible with the product being used. Skirting boards must be cleaned thoroughly.</td>
</tr>
<tr>
<td>Decontaminate domestic equipment following use Treat mops as infected linen / dispose of single-use mop-heads. Mop buckets must be emptied and cleaned using a solution of neutral detergent and warm water (dilution as per manufacturer’s instruction). Continue by wiping with a solution of 1000ppm (0.1%) sodium hypochlorite solution (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Decontaminate domestic equipment following use Treat mops as infected linen / dispose of single-use mop-heads. Mop buckets must be emptied and cleaned using a prepared solution of combined detergent and hypochlorite (dilution as per manufacturer’s instruction), rinse and dry if appropriate.</td>
<td>Decontaminate domestic equipment following use Treat mops as infected linen / dispose of single-use mop-heads. Mop buckets must be emptied and cleaned using a prepared solution of chlorine dioxide (dilution as per manufacturer’s instruction).</td>
</tr>
<tr>
<td>Waste bags should be sealed using twist swan-neck method and secured with a tag (provided by the waste contractor) when ( \frac{3}{4} ) full. Free liquid clinical waste should be disposed of in appropriate container provided by the waste contractor, secure lid and attach traceable tag when ( \frac{3}{4} ) full.</td>
<td>Waste bags should be sealed using twist swan-neck method and secured with a tag (provided by the waste contractor) when ( \frac{3}{4} ) full. Free liquid clinical waste should be disposed of in appropriate container provided by the waste contractor, secure lid and attach traceable tag when ( \frac{3}{4} ) full.</td>
<td>Waste bags should be sealed using twist swan-neck method and secured with a tag (provided by the waste contractor) when ( \frac{3}{4} ) full. Free liquid clinical waste should be disposed of in appropriate container provided by the waste contractor, secure lid and attach traceable tag when ( \frac{3}{4} ) full.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Notify nurse in charge on completion of work to facilitate review and assurance that the terminal clean has been completed to required specification and standard. <em>Inspection and /or audit of the terminal clean will provide assurance that deep clean has been completed to the required specification.</em></td>
<td>Notify nurse in charge on completion of work to facilitate review and assurance that the terminal clean has been completed to required specification and standard. <em>Inspection and /or audit of the terminal clean will provide assurance that deep clean has been completed to the required specification.</em></td>
<td>Notify nurse in charge on completion of work to facilitate review and assurance that the terminal clean has been completed to required specification and standard. <em>Inspection and /or audit of the terminal clean will provide assurance that deep clean has been completed to the required specification.</em></td>
</tr>
</tbody>
</table>

**AVOID LEAVING AND RE-ENTERING THE AREA UNTIL THE TERMINAL CLEAN IS FULLY COMPLETED.**

**THOROUGH PREPARATION AND SYSTEMATIC APPROACH IS KEY TO ACHIEVEING SUCCESSFUL TERMINAL CLEAN!**
Collecting and sending stool specimens during an outbreak

Specimens of Diarrhoea and/or Vomit are required to provide a definitive diagnosis for an outbreak within your care facility. Specimens of Vomit and/or Diarrhoea (Bristol stool chart type 6/7) may be sent for Virology testing. A specimen of Diarrhoea should also be sent for Microbiology. Try not to mix urine with a stool sample; do not worry if this is not possible. Ideally the sample should be submitted within 2 hours of collection, if this is not possible it should be refrigerated in a designated fridge and submitted within 24 hours.

Specimens for Virology Testing

One specimen of Diarrhoea (Bristol stool chart type 6/7) and or Vomit in a collection pot should be sent to The Regional Virus Laboratory, Kelvin Building, the Royal Victoria hospital site. The specimen pot should be clearly marked with the resident’s name, location and date of birth/HSC number and the date and time of the specimen. You may have your own arrangements for transporting specimens, perhaps through your health centre, GP or local hospital laboratory for onward transmission. The specimen of diarrhoea/vomit must go to The Regional Royal Victoria Hospital Virus Laboratory at the Royal Hospital site as no other hospital in Northern Ireland has a Virology Laboratory. Use the Virology request form contained in the outbreak pack (page 11). Complete all resident details on the form including the name of your facility, GP details and your contact telephone number. Up to six samples, from 6 different residents may be sent with the virology form, the form should be sent with the samples, clearly marked “Outbreak” as well as faxing a copy of completed form to Virology (telephone number on top of Virology form), and Virology will anticipate the arrival of your samples. Send samples as you gather them (2 or 3) at a time. Do not wait until you have collected all six samples as this may delay diagnosis. No more than six samples should be sent for virology testing.

Specimens for Microbiology Testing

A separate specimen of diarrhoea should be sent to your local hospital laboratory for Microbiology testing. Vomit specimens should not be sent for organism and sensitivity. This faeces sample (Bristol stool chart type 6-7) should also be collected in a rigid sample container, be labelled correctly and placed in the plastic attachment of the Microbiology form. The microbiology request form should state that an organism and sensitivity request has been requested as part of an outbreak in your care home. Microbiology will test for Salmonella, Campylobacter or other food related disease; the Laboratory will also test Diarrhoea of a person over 65 years for Clostridium difficile infection (CDI). If your resident is younger than 65 and you are sending a specimen for Microbiology, please request that the sample is also tested for CDI.
When can I not use hand sanitisers?

It is not appropriate to use a hand sanitiser when the hands are visibly dirty or soiled. You should use running water and liquid soap in this instance.

Many hand sanitisers are not effective against viral infections eg vomiting and diarrhoea caused by norovirus, or when someone has *Clostridium difficile* infection (infectious diarrhoea). You should use running water and liquid soap in this instance.

Hospital or care home staff will be happy to advise you when it is appropriate to use hand sanitisers or soap and water.

Remember it's OK to ask!

As a patient in a hospital or a resident in a care home, you should expect to see staff clean their hands before and after they provide care to you, but if you think staff have forgotten it's OK to ask!

Hand hygiene

Information leaflet for patients and visitors

Infection prevention and control is everyone's responsibility.

Patients and visitors all have an important role to play in preventing the spread of healthcare associated infections.

HSC Public Health Agency

Public Health Agency
4th Floor, 12-22 Lissanule Street
Belfast BT2 6BS
Tel: 028 9032 1313
www.publichealth.hscni.net
The importance of hand hygiene

Hand hygiene is the most important method of preventing and controlling the spread of infections.

It is extremely important that all patients and visitors have clean hands.

There are two main ways to decontaminate your hands: either washing them with soap and fresh running water or using a hand sanitiser.

How patients and visitors can help prevent the spread of infections

Patients – always wash your hands after using bathroom or toilet facilities, before eating food, after coughing or sneezing into the hands, or when your hands are visibly dirty. Hand wipes may also be useful to clean your hands.

Visitors – protect yourself and patients in hospitals and care homes by washing your hands when entering and leaving the ward or by using the liquid or foam hand sanitisers.

Hand hygiene technique

It takes less than a minute!

1. Palms
2. Backs
3. Between fingers
4. Knuckle grip
5. Thumbs and webs
6. Fingertips
7. Wrists

Washing your hands with liquid soap and water

- Wet hands under running water and apply liquid soap.
- Rub hands together, ensuring all areas are covered – this can be achieved by following the 7-step diagram as illustrated.
- Dry hands thoroughly using a disposable paper towel.
- Dispose of used paper towel in appropriate waste bin – waste bins in hospitals and care homes will be foot operated pedal bins – this will prevent recontamination of your hands by lifting the lid of the bin.

Using a liquid or foam hand sanitiser

- Apply hand sanitiser to dry hands.
- Rub hands together, ensuring all areas are covered – follow the 7-step diagram as illustrated.
- Allow hand sanitiser to dry on your hands.
HAND. HYGIENE

1. Palms
2. Backs
3. Between Fingers
4. Thumbs & Webs
5. Knuckle Grip
6. Fingertips
7. Wrists

You can do it in... 45 Seconds

* Wet hands under running water and then dispense one dose of liquid soap/antiseptic onto hands.

* Wash vigorously for 15 seconds. Following steps 1 - 7 without adding more water.

* Ensure hands are well rinsed.

* Dry hands thoroughly with paper towel and turn off taps with elbows or paper towel.

* Dispose of towel in bin. Always use the foot operated pedal and not your hand to open bin.

* Apply hand cream regularly.

Produced 2007
SET/IPC/HH11/07
Your 5 moments for hand hygiene at the point of care*

1. BEFORE PATIENT CONTACT
2. BEFORE ASEPTIC TASK
3. AFTER BODY FLUID EXPOSURE RISK
4. AFTER PATIENT CONTACT
5. AFTER CONTACT WITH PATIENT SURROUNDINGS

Public Health Agency

*Adapted from the WHO Alliance for Patient Safety 2006

Improving Your Health and Wellbeing
Remember

- Always wash your hands with soap and water after handling dirty clothing, and before handling clean clothing.
- Make sure that your washing machine and tumble dryer are working well. For example, remove fluff from the tumble dryer filter and use the correct amount of washing powder or detergent.
- Try not to rinse dirty clothes by hand but, if you need to, ensure that you wear household gloves and immerse the dirty clothing underwater to avoid the risk of splashing and spreading germs to work surfaces.

Laundry guidance

If you require further advice or information, please contact the hospital’s Infection Prevention and Control Team or a member of the ward/care home staff.

Infection prevention and control is everyone’s responsibility.

Healthcare workers, patients and visitors all have an important role to play in preventing the spread of healthcare associated infections.

Information leaflet for patients and visitors

Produced by the Public Health Agency, Omnusa Avenue Ltd, 10 Omnusa Avenue, Belfast BT9 6HJ. Tel. 028 9081 1411. Telephone Test Relay: 18001 225 901 131 131. www.publichealthni.net
Who should read this leaflet?

This leaflet is for anyone who takes their friend’s or relative’s clothing home to wash from a hospital or healthcare setting such as a care home.

Is there a risk of infection to me or my family if I take clothing home?

The risk of infection to you and your family is low. Information in this leaflet will help you to safely handle clothing taken home.

How will I carry the clothing home?

Laundry taken home from the hospital or care home should be transported in an appropriately sealed bag ie a patient property bag or a dissolvable bag suitable for domestic washing machines.

What if my friend or relative has an infection?

In this situation staff may give you extra advice, for example they might tell you to use a higher washing temperature than you would normally use.

How should I handle clothing I take home to wash?

Step 1: Take the bagged items home.

Step 2: Remove items from the bag and put them directly into the washing machine (unless using a dissolvable bag, which can be placed directly into the washing machine).

If you have to sort the clothes, wear household gloves and wash these and your hands with soap and warm water afterwards.

- Wash the clothing separately from your other home laundry.
- Always hold the clothing away from you at arm’s length to avoid spreading germs onto your clothes.
- Do not shake the clothing as this may cause germs to spread.
- Discard the bag you used to carry the clothing home into your household bin.
- Wash your hands thoroughly with soap and warm water.

Step 3: Wash the clothing using the highest temperature possible (according to the garment care label).

- Use your normal washing powder or detergent and follow the instructions on the correct amount to use.
- Do not overload your washing machine as this may not wash the clothes as thoroughly as needed.

Step 4: Tumble dry the clothes (if possible) following the washing instructions on the garment care label.

- If items are not suitable for tumble drying then dry as you would normally. For example, hang on a washing line or a clothes horse.

Step 5: Iron clothes according to their garment care label. If possible, use a hot steam iron.

Step 6: Store clothing in a clean and dry place until they are ready to be used again.

- This includes when you are taking the clothes back to a hospital or care home. Always carry clean clothes in a clean bag.
PUBLIC HEALTH AGENCY
HEALTH PROTECTION
DUTY ROOM
4TH FLOOR
12-22 LINENHALL STREET
BELFAST BT2 8BS

Tel: 0300 555 0119
Fax: 02895 363 947

E-mail: pha.dutyroom@hscni.net