

Viral gastroenteritis (*Norovirus*) outbreak guidance for caravan and campsites



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This guidance is for campsites and caravan sites in the Devon and Cornwall area and has been produced by the South West Peninsula Health Protection Unit, Cornwall Council and the Environment Agency. However, it is not a substitute for expert advice and should not dissuade the reader from seeking expert assistance if required.

Contents

1. Introduction	3
2. What is <i>Norovirus</i> ?	4
3. How is <i>Norovirus</i> spread?	4
4. Outbreak information for sites	5
4.1 Action needed before an outbreak	5
4.2 Action needed when an outbreak occurs	6
4.3 Dealing with staff illness	7
4.4 Dealing with occupant illness	8
5. Commonly asked questions	9
6. References	10
Appendices – 1. Checklist for sites	11
2. Treatment and disposal of sewage / waste	12
3. Cleaning facilities, equipment and supplies	14
4. Cleaning, removal and disposal of body fluids	16
5. Cleaning of public areas	19
6. Hand washing	20
7. Suggested information for visitors / occupants	22
8. Frequently asked question leaflet for visitors / occupants	23
9. Key information required by HPU / EH	25
10. Illness report form	26
11. Signage	27
12. Useful contact numbers	29

1. Introduction

This pack provides important information on infective viral gastroenteritis for caravan and campsites. The most common cause of such outbreaks is a virus called *Norovirus* (formerly Norwalk virus).

Outbreaks caused by other microbes can occur and it is important in every suspected outbreak to seek expert advice from the start by calling your local Health Protection Unit (HPU) on 01726 627881 (Cornwall Office) or 01803 861833 (Devon Office).

We hope that this information will highlight the importance of reporting cases early. If you have two or more linked cases of diarrhoea and vomiting or **more cases than you would usually expect** you should report the outbreak to your local HPU.

Don't wait for several cases of sickness and diarrhoea to occur before you report it, put controls and protocols into place – prompt action could prevent a major outbreak of infection. By having a pre-planned approach and by taking reasonable precautions when cases occur, you can help prevent illness spreading across a site.

Norovirus can spread rapidly, especially in close knit communities such as caravan and campsites, therefore it is important to take every precaution to protect your occupants and ensure they have a happy holiday, free from illness and return next year.

Thank you for your co-operation.

2. What is Norovirus?

Norovirus is one of a group of small round structured viruses, previously known as Norwalk / winter vomiting disease, which infects the gut. It causes a self-limiting, highly infectious gastroenteritis which typically lasts for a day or two but may occasionally last for up to a week. It is not a serious illness in healthy people but can be very disruptive in facilities such as schools, hospitals, care homes and camping / caravan sites. The incubation period for *Norovirus* is up to 72 hours, but more usually is 12 - 48 hours. Symptoms can be a combination of any of the following:

- Nausea
- Vomiting
- Abdominal pain
- Diarrhoea

It is sometimes associated with a flu-like illness e.g. aching joints and limbs. *Norovirus* infection results in short term immunity only.

3. How is Norovirus spread?

Norovirus is a purely human pathogen and infected individuals will excrete the virus in their stools and vomit. *Norovirus* is spread from vomit or faeces and can be spread via hand to mouth transmission but can also occur in the following ways;

Droplets

- Droplets are formed following vomiting which is often violent and projectile in nature, sometimes without warning.
- Diarrhoea is less of a risk for droplet spread if it is contained in the toilet.

Environment

- The environment becomes contaminated via the hands or from the settling droplets of vomit. Droplets land on surfaces etc. and are easily transferable via hands to the mouth.

Food

- Eating food that has been contaminated by an infected person either directly via vomit droplets, or, indirectly via contaminated hands also poses a risk of infection.

30mls of vomit can contain in excess of 30,000,000 viral particles and ingestion of as few as 10 and 100 viral particles may be enough to cause infection. To reduce the risk of transmission it is essential that vomit / diarrhoea is cleaned up immediately.

4. Outbreak information for sites

4.1 Action needed before an outbreak

Develop an action plan

Create an Outbreak Management Group – this will consist of key personnel including owners / management, supervisors, cleaning / estates etc. Designate one person to be in overall charge of co-ordinating the outbreak as it is more likely to be effective when staff can turn to one person for advice. Develop procedures and strategies to deal with an outbreak including contingency plans to cover staff sickness. This is the preparation you will need to ensure you can handle an outbreak quickly.

Train staff

Train staff in the procedures for dealing with an outbreak. All staff (including cleaners, estates, shop staff, food handlers and any others) should be trained to immediately notify management of any instances of sickness or diarrhoea, or general comments made by occupants about feeling ill. In this way you are likely to be aware of suspected cases at the earliest opportunity.

Create a cleaning Hit Squad

Put together a Hit Squad of cleaning staff who are ready to go into action at the first signs of an outbreak. This will help prevent confusion and panic if an outbreak does occur. The Hit Squad should protect themselves with the appropriate personal protective equipment (PPE). The Hit Squad must not include any food handlers.

Ensure adequate personal protective equipment (PPE) and chemical supplies

Ensure you have a supply of PPE (see Appendices 1 & 3) and that the Hit Squad is able to use PPE correctly. Ensure you have a stock of chemicals on site that can be used to clean up incidents of vomiting and diarrhoea. Make certain that you are aware of the necessary dilutions required to achieve a 0.1% hypochlorite solution (1000ppm)

Laundry facilities

Ensure your laundry facilities are capable of achieving hot water temperatures in excess of 60°C. Where practicable, provide soluble alginate linen bags. These can be placed directly into washing machines and open up at warm water temperatures. This minimises the risk of further handling of soiled laundry.

Contract cleaner

Identify a contract cleaner who will be able to provide cleaning staff at short notice, to provide cover in case of significant illness in your own staff. Exploring alternative staffing resources may be particularly prudent for smaller sites with fewer staff to call upon. It is advisable that these additional staff undertake normal cleaning duties releasing your own staff for the Hit Squad.

Sewage systems and drainage

Review sewage works and drainage to ensure these are fully operational prior to opening for bookings. Failure to ensure that the site septic system is functioning optimally may mean the waste water could potentially come into contact with people, or enter the natural environment without complete treatment of all harmful contents (see Appendix 2).

For further information, please read 'Treatment and disposal of sewage where no foul sewer is available: PPG4'. Available at:

<http://publications.environment-agency.gov.uk/pdf/PMHO0706BJGL-E-E.pdf>

Environmental Health / Health Protection Unit

Further information on preparedness and advice is available from your local Environmental Health Department and Health Protection Unit (HPU) (contact details available in Appendix 12).

4.2 Action needed when an outbreak occurs - implement the action plan

An outbreak can be defined as two or more linked cases of the same illness, or when the number of observed cases unaccountably exceeds the expected number.

Contact Environmental Health or your local Health Protection Unit (HPU)

Do not assume that an outbreak of vomiting and / or diarrhoea is viral in origin, as the symptoms might be caused by bacteria e.g. *Salmonella*, *E. coli*, or *Campylobacter*. An outbreak caused by these bacteria would be managed differently to that caused by a virus. Contact Environmental Health or your HPU as soon as possible for an initial investigation to be made. The Environmental Health Officer (EHO) will try to give an indication of the likely cause of illness by looking at the type and duration of symptoms of those affected. Confirmation can only take place when a stool sample is sent to the laboratory for analysis, which takes a few days. If food is thought to be the source of the outbreak, samples of the food will also need to be sent to the laboratory. Where it is evident that the likely source of the outbreak is *Norovirus*, then the following actions should be taken:

Assemble the Outbreak Management Group

Call the Outbreak Management Group together to go over your action plan including the responsibilities and duties of key personnel. This includes the verification of your cleaning and disinfection procedures and your protocols to ensure good personal hygiene amongst both occupants and staff.

Activate the cleaning Hit Squad

Incidents of sickness may occur at any time of the day and so the Hit Squad of trained cleaning staff should be readily available at short notice, 24 hours a day. Their duties should continue until the outbreak has ceased and only finish once 48 hours have passed without any further incidents / cases (see Appendices 3 – 5 for cleaning recommendations). The EHO will leave a number of faecal specimen pots, labels and forms for you to distribute to affected occupants and staff. They and the local HPU will also require you to complete an outbreak summary sheet giving details of all the occupants / staff that have been ill (see Appendices 9 & 10).

Determine the severity of the outbreak

Sites should consider whether closing part or the whole of the premises, or phasing / suspending the arrival of new visitors is appropriate to enable a full programme of environmental cleaning and disinfection to take place. In theory, a 48-72 hours closure may be adequate, provided no more occupants and staff are ill and a cleaning and disinfecting programme is undertaken as described.

Should I inform visitors not yet arrived?

Young children and the elderly are particularly vulnerable to serious illness as a result of infection, so if there is any evidence of *Norovirus*-like activity then it would be prudent, wherever possible, to inform occupants and those who have pre-booked of the situation. This would include giving prospective visitors sufficient information to make an informed choice (see Appendix 7 for a template letter).

4.3 Dealing with staff illness

In the event of a member of staff reporting that they have vomiting, diarrhoea, abdominal pains or nausea, they must immediately be sent off duty.

- An illness report form should be completed
- Faecal specimens should be obtained from any infected staff and are usually submitted via their GP
- Staff should refrain from work until at least 48 hours, preferably 72 hours, have passed after symptoms cease (exclusion can be a legal requirement for food handlers with symptoms)
- Staff who live on the premises or share communal facilities should be transferred, wherever possible, to single accommodation with en-suite facilities. Where such accommodation does not exist then regular (ideally hourly) cleaning of affected areas should be arranged
- Ensure staff areas including bathrooms, toilets and communal areas are included in the cleaning and disinfection programme

If a member of staff is sick within the kitchen or any food sale / preparation areas then the potential for illness to spread will increase significantly. All foods in the area which may have become contaminated must not be used for human consumption and must be promptly disposed of in a safe manner. The same detailed cleaning programme will need to be introduced within the kitchen and any food areas with frequent changing of cleaning cloths and paper towels. It must be assumed that all surfaces may be contaminated.

REMEMBER: Being at work with symptoms poses a risk to vulnerable visitors / occupants and work colleagues

4.4 Dealing with occupant illness

Stress good personal hygiene

Instruct occupants in the importance of good personal hygiene especially hand washing (see Appendix 6). This is particularly important before eating.

Obtain a faecal specimen

Ask each affected person to provide a faecal specimen which can then be sent to the laboratory for testing. Specimen pots are available from your GP, the local hospital or environmental health department. The earlier specimens are obtained during the course of the illness and submitted for analysis, the greater the chances of identifying the virus, and therefore being able to manage the outbreak appropriately.

Environmental Health Officers (EHOs) are prepared to collect sample pots in the initial days of the outbreak in order to speed up the detection process. Ensure the label on each pot is fully completed. It is essential that the person's full name, date of birth, date, time of sample and temporary address are both on the sample pot as well as the form. In addition, both should also say "Outbreak Investigation" and the examination requested should include "Norovirus". The officer from the local environmental health department will assist in supplying the necessary sample pots and forms and give advice on how best to send the samples for laboratory analysis.

Isolate infected occupants

Actively encourage affected people to stay in their accommodation and avoid all public areas. Food and drink should be taken to individual pitches rather than affected persons attending communal areas if possible.

Provide information to occupants

Information should be provided to visitors when they arrive and to those who are already resident. You should notify them of the symptoms of illness and the procedures in place to prevent the spread of infection (see Appendices 6 & 7). Encourage quick reporting of illness as this is vital to ensure that cleaning can be done as soon as possible.

Provide extra facilities for ill people

This could include drinking water, sick bags or other disposable receptacle in case of illness.

Do not send symptomatic occupants or staff to the GP

It is advisable to request the GP to visit if required, rather than send affected persons to the Medical Centre. This will reduce the risk of spreading the infection.

Alternatively contact NHS Direct for information and advice.

Illness report form

Where possible, record information on affected persons in an illness report form or ask for this to be self-completed. This can help you see if there are any common links between sufferers (see Appendix 10).

5. Commonly asked questions for sites

How do we know if it is viral in nature?

Informing Environmental Health or your local HPU at the start of an outbreak will enable them to assess the likely nature of the outbreak. The following information is important: - symptoms, numbers affected, timescales, dates of onset of illness and duration of illness in affected individuals. Stool samples are important, particularly to rule out more serious causes of infection. If it is thought to be related to food handlers / food then the local environmental health officer at your council will take the lead.

What happens when an occupant vomits in a communal area e.g. dining area?

Isolate the occupant as soon as possible. Any vomit should be cleaned up immediately and disposed of into a plastic bag and secured and disposed of safely. Under no circumstances should vomit go into the food preparation area as this could pose a threat of further transmission if the environment becomes contaminated. Any other people in the immediate vicinity of the vomiting should be offered alternative food stuffs, as it is likely that their food will have been contaminated by aerosol droplets and they should also wash their hands.

Will every area of the premises need to be cleaned even if it has not been contaminated?

A risk assessment will be made by the owner / manager with the HPU providing assistance if required. It is important that a record is kept of the location of where contamination (vomiting) occurred. If there are only a moderate number of cases and the areas have been cleaned appropriately then a thorough general clean will suffice once the outbreak is deemed to be over in most cases.

What about people who visit regularly. Should they still visit?

All visitors should be made aware that there is an outbreak of diarrhoea and vomiting. It is then their decision as to whether they visit or not. If visitors have had any symptoms themselves then they should not visit for at least 48 hours from their last symptom. If a visitor is known to have chronic illness or they have young children then it may be sound practice to dissuade them from visiting.

What happens if an occupant / visitor needs to be admitted to hospital?

If an occupant is admitted to hospital, please ensure that the hospital is informed of the outbreak before admission so that arrangements can be made to ensure adequate procedures are in place to reduce the risk of further transmission to others. Please also inform the HPU if this situation arises.

What about staff who have another job?

Good communication is important in reducing transmission of illness between premises. Temporary or agency staff should be informed that there is an outbreak currently. They should not work anywhere else for 48 hours. This time lapse ensures that they are not incubating disease and are safe then to work elsewhere. The same applies to staff that may have two jobs. Staff with symptoms should inform their employer where they have been working. They should also inform their GP and send in a stool specimen if advised to. They should not work until 48 hours after the cessation of their symptoms.

6. References

British Water (2008) Code of practice: A guide for users of sewage treatment systems. ISBN 978-1-903481-13-4. Available at: [Link no longer available]

Communicable Disease and Public Health (2004) Preventing person-to-person spread following gastrointestinal infections: guidelines for public health physicians and environmental health officers

Environment Agency. Treatment and disposal of sewage where no foul sewer is available: PPG4'. Available at:
<http://publications.environment-agency.gov.uk/pdf/PMHO0706BJGL-E-E.pdf>

Guidance for the management of *Norovirus* infection in cruise ships

Health Protection Agency (2006) The identification and management of *Norovirus* infection in care homes and hotels

Health Protection Agency & HSE (2006) Management of Spa Pools: Controlling The risk of infection: Part 1:
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1200471667418

Health Protection Agency & HSE (2006) Management of Spa Pools: Guidance on the control of infectious agents in spa pools: Part 2:
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1200471667554

Health Protection Scotland (2003) The identification and management of outbreaks of *Norovirus* infection in tourists and leisure industry settings guide for NHS boards and local authorities

South West Peninsula Health Protection Unit (2009) Viral Gastroenteritis (*Norovirus*) Outbreak Guidance for Nursing/Residential Homes in Devon and Cornwall

South West Peninsula Health Protection Unit (2009) Hotel/Campsite D&V Outbreak Checklist

Torbay Council (2003) The control of viral illness in hotels and other accommodation providers

Appendix 1: Checklist for sites prior to opening

- Ensure you have adequate cleaning supplies / chemicals
- Review sewage works and drainage to ensure these are fully operational prior to opening for bookings. Failure to ensure that the site septic system is functioning optimally may mean the waste water could potentially come into contact with people, or enter the natural environment without complete treatment of all harmful contents (see Appendix 2)
- Ensure that your swimming pool / hot tubs have been checked and serviced
- Ensure food safety and hygiene practices are up to date for any food outlets / shops on site
- Ensure that farm animals are removed from fields to be used for camping for three weeks prior to use. Remove any visible droppings at the beginning of the 3 week period and mow the grass, removing the clippings before fields are used and keep it short. Keep animals off fields during their use for camping
- Ensure that appropriate signage is in place to encourage good hand hygiene amongst occupants (see Appendix 11)

Appendix 2: Treatment and disposal of sewage / waste

Correct disposal and treatment of sewage will protect the bathing waters and streams nearby from contamination.

- Document and understand the site drainage system. Record where the waste water and surface water drains to and detail whether surface run-off enters the same drainage system as sewage or is kept separate
- In advance of the season each year, check your site drainage system. Particular attention should be given to defective drains, wrong connections, accumulation of debris in manholes and pumping stations. Corrosion in associated electrics should also be inspected
- All systems must be kept operational throughout the season, especially when occupancy levels are high. Have a year round maintenance contract with a reputable firm
- Organise regular emptying of septic tanks, cess pits and chemical disposal points
- Install grease traps on vulnerable drainage systems and organise regular emptying
- Encourage visitors to 'bin it, don't flush it' for anything that should not be disposed of via a toilet or sink
- Emphasise the use of correct disposal points for chemical toilet contents and consider displaying hand hygiene information (see Appendix 11 for signage)
- Provide specific bins for dog waste and have signage to encourage their use
- Check that you have the required environmental permissions

For further information on the right treatment system to choose, its operation and maintenance, consent and land use planning requirements, please read 'Treatment and disposal of sewage where no foul sewer is available: PPG4'. Available at: <http://publications.environment-agency.gov.uk/pdf/PMHO0706BJGL-E-E.pdf>

There is a risk that sewage treatment facilities at campsites and caravan sites at times produce poor quality effluent. The sewage treatment systems are usually put under great stress at season start up (Easter). If you combine this with fluctuating loads until peak season in the summer, the site may be producing poorly treated effluent for long periods. It is advised the treatment plant is checked regularly, is working efficiently and a thorough pre-season check is undertaken by a specialist in water treatment systems. Further information can be gathered from Code of Practice – A Guide for Users of Sewage Treatment Systems.

If you do not have a permit for your discharge please contact the Environment Agency to discuss your application for a permit.

Swimming pools / hot tubs

- All backwash water must be discharged to the foul sewer, not to surface waters
- Chlorination and chemical storage must be carried out in a safe fashion
- Discharge of the swimming pool contents for cleaning and repairs must only be carried out after the contents have been allowed to de-chlorinate
- Storage of chemicals and oil must be carried out in a safe fashion

Guidance has been produced by the Health and Safety Executive (HSE) and the Health Protection Agency (HPA) to increase understanding of the microbiological risks associated with using a spa pool or whirlpool bath, and to give advice on some of the control measures that can be used to manage these risks effectively. This guidance is intended to help those designing, manufacturing, supplying, installing, displaying and most importantly managing spa pools meet their legal responsibilities under health and safety legislation, but may also be useful for the domestic owner.

Management of Spa Pools: Part 1:

http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1200471667418

Management of Spa Pools: Part 2:

http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1200471667554

Appendix 3: Cleaning facilities, equipment and supplies

Cleaning and disinfection is the single most important factor in preventing the spread of the virus and if carried out effectively, it should reduce the risk of further spread of infection.

- Ensure the Hit Squad of trained cleaning staff is readily available at short notice, 24 hours a day. Their duties should continue until the outbreak has ceased and only finish once 48 hours have passed without any further incidents / cases.

Cleaning facilities

A cleaning sink with hot and cold water should be designated for the exclusive use of the Hit Squad cleaning staff. It must not be in a food preparation area.

Changing / washing facilities

Designate specific changing and washing facilities for Hit Squad cleaning staff including hot and cold water, liquid bactericidal soap, a disposable nailbrush and paper towels.

Cleaning equipment and supplies

Ensure your supplies of cleaning equipment and cleaning chemicals are adequate. Where necessary, ensure that it is thoroughly cleaned, disinfected and stored in a dry location. Equipment can include:

- Hypochlorite solution e.g. bleach or virucidal multi-purpose cleaner
- Disposable paper towels and disinfectant wipes
- Plastic scrapers / dust pans
- Detergent
- Disposable cloths and disposable mop heads
- Soluble alginate laundry bags
- Buckets
- Plastic bags
- Sick bags
- Absorbent granules
- Hazard warning tape
- Disposable apron

Personal protective equipment (PPE)

Provide protective equipment for cleaning staff. This might include:

- Single use latex gloves
- Single use disposable plastic aprons
- A supply of medicated wipes

Ensure that staff are aware of your site protocols regarding PPE and that they are using PPE correctly:

- Use the PPE (usually aprons and gloves) as per site protocols, when there is a risk of contamination from body fluids
- Whilst the appropriate use of PPE may offer some protection to clothes from contamination, during the outbreak you may wish to consider changing out of your work clothes before travelling home. Work clothes that are washed at home can be washed in a domestic washing machine

In order to minimise risk to colleagues from used PPE, it must be removed in a standard manner:

- First remove the gloves, by turning them inside out in one single motion; then remove the apron
- Used PPE should be bagged, tied or sealed and disposed of as domestic waste
- After disposing of the PPE in the bin, you should wash your hands with liquid soap and running water
- If the hands are not visibly soiled, an alcohol hand rub can be used as an alternative if soap / water provision is not within close proximity

Removal of waste

After cleaning each affected area or room, all waste including the protective equipment should be removed, placed in a secure plastic bag and removed carefully to a designated storage area. Thorough hand washing with soap and hot water should then be carried out. Disposable latex gloves and plastic aprons should be used for each affected area to be cleaned.

Appendix 4: The cleaning, removal and disposal of body fluids

The current guidance on cleaning up spills and the recommendation from the HPU is detergent and water followed by a standard hypochlorite (0.1%) solution to disinfect (e.g. Milton diluted as detailed by the manufacturer). However, there are differing options within local authorities on the choice of products that are used for cleaning. Instructions from the manufacturer should be followed. Spillages of diarrhoea and vomit should always be attended to as quickly as possible.

1. Always assess the risk of carrying out the required task before you begin
2. Isolate the affected area, for example, with warning cones, if at all possible
3. Make sure that all the protective clothing and equipment you require is available (disposable latex gloves and disposable plastic aprons)
4. Put on the protective clothing
5. Contain the spill (if necessary) by placing disposable wipes/paper towels around it
6. Remove the bulk of the contamination with paper towels. The area should be cleaned thoroughly with detergent and water, using disposable cloths. Then wipe over using a hypochlorite solution **or** the recommended product agreed by your locality which should also contain 0.1% hypochlorite. Ensure adequate ventilation when using hypochlorite solutions
7. Put all disposable items into a waste bag, tie and dispose
8. All re-usable items must be thoroughly cleaned, disinfected and dried before being returned to the correct storage area. The cleaning of such equipment must be carried out in the cleaning equipment sink and never anywhere else
9. Thoroughly wash your hands on removal of gloves with soap and water and dry well
10. Remove safety cones when the area is dry
11. Report any shortfalls in the protective clothing or equipment used for dealing with body fluids to the person responsible for maintaining stock levels

The disinfectant solution should always be freshly prepared and then discarded when you have finished (in the cleaners sink) as the solution may become deactivated after 24 hours (refer to your Control of Substances Hazardous to Health (COSHH) manual). If the spillage has taken place on a carpet, thoroughly clean the affected area using disinfectant (but not hypochlorite). If possible, use a steam cleaner ensuring it is working as per the manufacturer's instruction e.g. it is able to reach and maintain the correct temperature – also that the person using the cleaner has been suitably trained. If steam cleaning of the carpet is not appropriate then a carpet extraction machine should be used.

For soft furnishings that are heat tolerant, initial cleaning with hot water and detergent, should be followed by steam cleaning which reaches a minimum of 70°C. If this is not possible, disinfect using a suitable effective virucidal disinfectant. If covers are removable they should be laundered at 70°C.

Once the outbreak is over then a thorough environmental clean / deep clean / terminal clean should suffice. It is important that all staff work together to enable the final clean to be performed in a safe and timely manner. Good communication between the HPU, the site and cleaning agency etc. is essential.

You may wish to issue copies of this guidance to any privately owned caravans on your site so that owners can take the appropriate actions to reduce the risk of infection.

Prior to cleaning ensure:

Areas to be cleaned are emptied of as many personal belongings as possible.

It is the responsibility of the person in charge to ensure soiling (i.e. vomit or diarrhoea) is cleaned up in a timely manner to reduce the risk of further transmission.

Process of cleaning:

1. Communal areas including:

- a. Toilet facilities; including bathroom fittings, wash hand basins, surfaces, taps, toilet and bath rails, light switches etc
- b. External water points, taps or showers e.g. for wet suits
- c. Washing up areas
- d. Laundry rooms
- e. Campsite shop / reception
- f. Play areas inc. sand and ball pits
- g. Leisure equipment / amusement arcades
- h. Table tops and surfaces where dust collects
- i. Door handles and edges, telephones, banisters, furniture, waste bins, window frames

It is important that all visible soiling is physically removed and cleaned prior to disinfection. All areas are to be damp dusted with detergent and water and then a standard hypochlorite solution, or appropriate locally agreed product. This ensures that dust and possible virus particles are wiped away. If necessary and following discussion with the HPU, curtains are steam-cleaned in situ unless there are mitigating circumstances and they need to be taken down and washed. Carpets, seating and soft furnishings, if soiled, should be steam cleaned or at least shampooed (hypochlorite solution should not be used on carpet, curtains or soft furnishings as it may damage the fabric. Please check manufacturer's advice on the product for more information). Check that materials are heat tolerant before starting. Do not dry vacuum carpets or other affected soft furnishings – this will only spread the virus further by making it airborne. Where soft furnishings are not heat tolerant, disinfect using a suitable effective virucidal disinfectant. If covers are removable they should be laundered at 70°C.

Removal of contaminated items

Any removable soft furnishings e.g. towels, bedspreads, cushions, curtains etc should be changed. Place contaminated items in plastic bags for removal to the laundry. It is strongly recommended that you use soluble alginate laundry bags that

can be placed directly into the washing machine thereby avoiding the risk of further exposure of the virus. These materials can be adequately washed on a hot wash cycle. This should be at 70°C. If an outside laundry service is used then they should be advised of the outbreak in order that their cleaning routines do not put themselves at risk. Ensure they are capable of achieving a 70°C hot wash cycle in order to disinfect the linen.

Appendix 5: Cleaning of public areas

When sickness occurs in public areas e.g. reception, shop, dining areas etc. they must be cordoned off prior to cleaning being undertaken. Some form of hazard warning tape is recommended to prevent access to visitors, occupants or other members of staff.

Viral particles can travel a long way, so don't confine the cordoned off area to just the immediate area of contamination. Where possible, the areas to be cleaned and cordoned off should extend to at least 3 metres around the area of gross contamination.

Advise staff on the methods to prevent other persons gaining access into these areas until the cleaning staff can ensure the area is properly cleaned. Appropriate signage may need to be used during the cleaning process and for a period afterwards to allow for surfaces to dry before access is re-established. Remember to maintain access to toilet facilities for site occupants in case of illness.

During an outbreak, routine cleaning of site toilets, staff toilets and shower blocks will need to be increased in frequency to at least 4 times a day, preferably hourly, and after any incidence of soiling or contamination. This may need to increase if there is evidence that the outbreak is not under control. Designate a member of staff to undertake a regular tour of all public areas as this may identify areas needing urgent cleaning. Do not wait for a member of public to notify staff of an event of illness.

Swimming pools / spa pools

If a vomiting or diarrhoea incident occurs in or close to the pool:

1. Clear the pool of bathers immediately
2. Ensure that disinfectant levels are maintained at the top of the range
3. Use a coagulant and filter the water for six turnover cycles
4. Backwash the filter throughout this operation
5. Subject to clarity of water and satisfactory pH and chlorine levels the pool can then be re-opened
6. Records should be maintained of the incident and all subsequent actions taken
7. Instructions for cleaning and disinfection should be followed for pool surrounds and communal areas
8. The areas to be cleaned and cordoned off should extend to at least 3 metres around the area of gross contamination

Appendix 6: Hand washing

Strict hand washing before and after tasks is essential to reduce the risk of transmission of viral particles from the environment to either yourself or others.

Hand washing with warm water and liquid soap from a pump dispenser is recommended as follows

- If hands are visibly soiled
- After removing personal protective equipment (PPE) e.g. aprons and gloves
- Immediately after hands have been contaminated with blood, faeces, urine or other body fluid
- Before preparing or eating food
- After going to the toilet
- Before going home

Procedure for hygienic hand washing

Wet both hands thoroughly before applying soap to the hands. Follow the technique outlined below for 20-30 seconds. Pay particular attention to the thumbs, fingertips, and between the fingers. Hands should be thoroughly rinsed with running water. Care should be taken to dry the hands thoroughly using disposable paper towels. Hand cream may be applied to the hands at the completion of duties to prevent the skin drying, and cracking.

Hand washing steps



1. Wet the hands thoroughly, before applying the soap.



2. Rub hands palm to palm.



3. Rub the right palm over the back of the left hand and rub the left palm over the back of the right hand.



4. Rub the hands palm to palm with the fingers interlaced.



5. Rub the backs of the fingers into the opposing palms with the fingers interlocked.



6. Clasp the right thumb in the left hand, rub rotationally and vice versa.



7. Rub rotationally the clapsed fingers of the right hand into the palm of the left hand and vice versa.



8. Rinse and dry the hands thoroughly with a patting action.

N.B. It is important to follow this same technique when decontaminating hands using an alcohol hand decontaminant

Appendix 7: Suggested information for visitors / occupants

Once the Health Protection Unit / Environmental Health have been informed of the outbreak and after following their advice; the letter template below can be used by sites to send to visitors / occupants to inform them of the situation.

Date

Dear Visitor / Occupant

I am writing to let you know that the site has experienced an outbreak of gastro-enteritis over the last few days.

I have been advised by the Health Protection Unit and Environmental Health Departments that this is a mild illness probably caused by a virus, but that it is very infectious. The most usual symptom is vomiting. Some people may have diarrhoea and / or abdominal pain. Symptoms rarely last for more than 24 – 48 hours. The incubation period (time it takes for the illness to develop) is usually between 12 and 48 hours but may be longer in some instances (72 hours).

There is a risk to visitors of acquiring this illness therefore, we advise you to stay away until the outbreak is over. If you are affected, please do not visit until 48 hours after the diarrhoea and vomiting have stopped.

The virus is easily spread from person to person. Good hygiene by everyone in the family reduces the risk. This means washing hands with soap and warm water after going to the toilet and before preparing or eating food.

It is important to clean up carefully when someone has been sick as vomit is very infectious. It is important to clear up spills of vomit or faeces immediately, by thorough washing of the contaminated environment with soap and hot water. For hard surfaces, (floor, work tops etc, an additional disinfection with a dilute solution of Milton or household bleach (according to manufacturer's instructions) will reduce the contamination. DO NOT MIX these substances with soap and water. Be sure that each person uses separate towels and flannels which are changed and washed frequently. **Hand washing after visiting the toilet, cleaning up spillages and before handling food is the most important element of reducing the risk of infection.**

We are ensuring the site is thoroughly cleaned to reduce any further risk.

Yours faithfully

The Manager / Owner



Appendix 8: Frequently asked question leaflet for visitors / occupants

What is *Norovirus*?

Norovirus is one of a group of viruses that are the most common cause of gastroenteritis (stomach bugs) in England and Wales. 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. The infectious dose is very low, swallowing as few as 10 - 100 virus particles may be enough to cause illness.

What are the symptoms?

The most common symptoms are nausea, vomiting and diarrhoea. Symptoms often start with the sudden onset of nausea followed by projectile vomiting and watery diarrhoea. However, not all of those infected will experience all of the symptoms. Some people may also have a raised temperature, headaches and aching limbs.

Symptoms usually begin around 12 to 48 hours after becoming infected. The illness is self-limiting and the symptoms will last for 12 to 60 hours. Most people make a full recovery within 1-2 days, however, some people (usually the very young or elderly) may become very dehydrated and 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*, immunity is short-lived and infection with one strain does not protect against infection with another strain. Outbreaks commonly occur in semi-closed environments such as hospitals, nursing homes, schools, caravan and campsites and on cruise ships, where people are in close contact with one another for long periods.

How can these outbreaks be stopped?

Outbreaks can be difficult to control because *Norovirus* is easily transmitted from one person to another, the low infectious dose and because the virus can survive in the environment for lengthy periods. The most effective way to respond to an outbreak is to institute good hygiene measures such as strict adherence to hand-washing especially when handling food, after contact with infected people, and after using the toilet; disinfecting contaminated areas promptly; not allowing infected people to prepare food until 48 hours after symptoms have elapsed and isolating ill people for up to 48 hours after their symptoms have ceased.



How is *Norovirus* treated?

There is no specific treatment for *Norovirus* apart from letting the illness run its course. 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?

Good hygiene is important in preventing others from becoming infected – this includes thorough hand washing after using the toilet. Food preparation should also be avoided until 48 hours after the symptoms have subsided.

Who is at risk of getting *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 anywhere that large numbers of people congregate for periods of several days. This provides an ideal environment for the spread of the disease. Healthcare settings tend to be particularly affected by outbreaks of *Norovirus*. A recent study by the HPA shows that outbreaks are shortened when control measures are implemented quickly including strict hygiene measures.

How common is *Norovirus*?

Norovirus is not a notifiable disease so reporting is voluntary. The HPA receives reports of outbreaks and records between 130 and 250 outbreaks each year. 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, good hygiene measures (such as frequent hand washing) around someone who is infected are important and can reduce the risk of infection. Certain measures can be taken in the event of an outbreak, including the implementation of basic hygiene and food handling measures and prompt disinfection of contaminated areas, and the isolation of those infected for 48 hours after their symptoms have ceased.

Appendix 9: Key information which will be required by the Health Protection Unit / Environmental Health

Name of caravan / campsite	
Name of owner / manager and contact telephone number	
Email address	
Date of onset of outbreak (to include brief description of symptoms of those affected and duration of illness)	
How many occupants on site?	
How many staff employed on site?	
How many occupants affected with illness?	
How many staff affected with illness?	
Brief description of the site to include number of pitches, number of toilet / shower blocks and location, leisure facilities available e.g. swimming pool / hot tubs, any animals on site – are these able to be petted?	
Cleaning arrangements on site, please include cleaning products used, cleaning schedule?	
Any food outlets on site or food sold on site?	
Any children's play areas e.g. ball pits, sand pits etc?	
Has the site started an illness report form?	

Appendix 10: Illness report form

Name	DOB / Age	Sex	Staff or Occupant	Unit / Tent / Pitch / Dorm	Symptoms	Onset date	Date of last symptom	Specimen collected Y / N & date

This form can be used as a site management tool to record relevant information regarding the outbreak and may help to identify a possible cause or source. It may also help to target control measures appropriately and effectively e.g. if only one field is affected.

NOTICE

***Avoid contamination
wash your hands***



NOTICE

***Avoid contamination
wash your hands***



Have you washed your hands?



Appendix 12: Useful contact numbers

South West Peninsula Health Protection Unit

Cornwall Office 01726 627881

Devon Office 01803 861833

Website: www.hpa.org.uk

Environmental Health, Cornwall Council

Telephone 0300 1234 100

Please ask to be put through to the relevant Environmental Health Officer for your area to report an outbreak of gastrointestinal illness.

Website: www.cornwall.gov.uk

Email: envhealthandlicensing@cornwall.gov.uk

Environmental Health, Devon

East Devon 01395 516 551

South Hams 01803 861 238

Exeter 01392 277 888

Teignbridge 01626 361 101

Mid Devon 01884 255 255

Torbay 01803 208 010

North Devon 01271 388 870

Torrige 01237 428 809

Plymouth 01752 668 000

West Devon 01822 813 600

Website: <http://www.devon.gov.uk/>

Environment Agency

Telephone: 08708 506 506

Website: <http://www.environment-agency.gov.uk/>