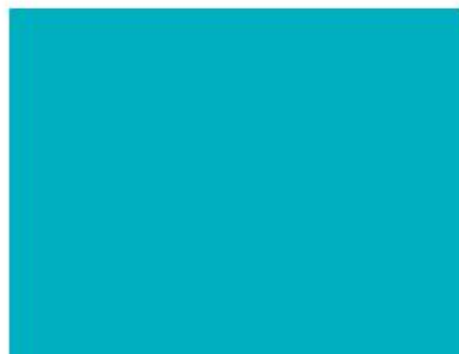
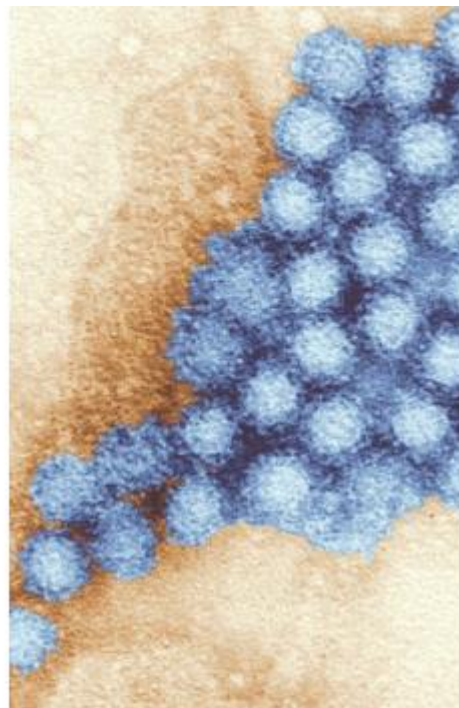




Public Health
England

Norovirus Toolkit

A set of resources for staff in schools and nurseries





Introduction

Norovirus, also called ‘winter vomiting bug’ because it usually occurs during the winter months, is the most frequent cause of infectious gastroenteritis in England and Wales each year. This toolkit has been developed to help you prevent and control future outbreaks of Norovirus in your care home. You should use the toolkit in conjunction with current Department of Health infection control guidance.

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Further information on Norovirus and other GI diseases is available on PHE website:

- www.gov.uk/phe

Thanks to Public Health England West Midlands – document was developed by them and adapted for local use.



Frequently asked Questions

What are Noroviruses?

Noroviruses are the most common cause of viral gastro-enteritis (stomach bugs) in England and Wales. Noroviruses are also known as the 'winter vomiting bug'.

How does Norovirus spread?

The virus is easily transmitted from one person to another through:

- Contact with an infected person;
- Consuming contaminated food or water;
- Contact with contaminated surfaces or objects.

What are the symptoms?

Signs and symptoms of Norovirus include nausea, vomiting, diarrhoea, headache, pyrexia, myalgia (muscle pain), and abdominal pain. The symptoms will begin around 12 to 48 hours after becoming infected. The illness is self-limiting and symptoms last for 12 to 60 hours. They 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 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. Because there are many different strains of Norovirus, and immunity is short-lived, outbreaks can affect more than 50% of susceptible people. Outbreaks usually tend to affect people who are in semi-closed environments such as hospitals, nursing homes, schools/nurseries and cruise ships.

How can these outbreaks be stopped?

Outbreaks can be difficult to control and long-lasting because Norovirus is easily transmitted from person to person, and the virus can survive in the environment. The most effective way to respond to an outbreak is to:

- Clean and disinfect contaminated areas frequently;
- Establish good hygiene, including hand washing;
- Provide advice on food handling;
- Isolate/exclude cases until 48 hours* after their symptoms have ceased.

*48hr exclusion period is advised in current clinical guidance; however, preference may be to practice 72hrs.



How is Norovirus treated?

There is no specific treatment for Norovirus, apart from letting the illness run its course. It is very important to drink plenty of fluids to prevent dehydration.

If I have Norovirus – how can I prevent others becoming infected?

Good hygiene is important in preventing others from becoming infected. This includes thorough hand washing, especially before and after toileting. Preparing food for others should be avoided until 48 hours after symptoms have ceased.

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. However, 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/nurseries, residential/care 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.

Outbreaks are shortened when control measures are implemented quickly, such as closing wards/units to new admissions within four days of the beginning of the outbreak, and implementing strict hygiene measures.

Are there any long-term effects?

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

What can be done to prevent infection?

It is not always possible to prevent infection; however, taking good hygiene measures (such as frequent hand washing) around someone who is infected is important. 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.



Guidance for Schools and other Child Care Settings

Hand washing: the simplest and most important infection control measure

In schools and nurseries of the most recognised ways that childhood infections are easily spread is through hands touching children, staff and physical surfaces such as table-tops, taps toilet seats and handles. Examples of these infections include:

- Diarrhoea and vomiting (including Norovirus infection, and that caused by E. Coli O157, one of the most serious gastro-intestinal infections).
- Germs causing upper respiratory tract infections and influenza.
- Other infections including impetigo and hand, foot and mouth disease.

Hand washing remains the most important step in preventing such infections. Hand washing, under supervision, should also take place on arrival and departure so children do not bring infection to school or take it home.

It is important that hands are washed correctly, please see over page for washing technique, but also remember to wet hands before applying one push of liquid soap. Liquid soap is preferred rather than bar soap, which increases the risk of cross contamination (i.e. the germs of the previous user(s) stay on the soap). For the same reason nail brushes should not be used.

Commercial products to clean hands are currently being marketed directly at schools and nurseries. These products are similar to hand decontaminants used in hospitals. It is important to note that only those products with an alcohol concentration of 70% and over are effective. Some are being sold as a replacement to hand washing, particularly in bathrooms and washrooms. **Please be aware that following visits to the toilet or any other activity where hands may be physically soiled, hand washing with soap and water remains the only recommended method of cleaning hands.** Products such as these will be rendered useless in the presence of dirt and soiled hands. They may have a place during outbreaks of gastro-intestinal infection (i.e. diarrhoea and vomiting), in addition to physical hand washing, but not to replace it. **These products cannot replace the need for hand washing.**



Actions to be taken during an outbreak of diarrhoea/vomiting

The winter months are traditionally the time when viral outbreaks of diarrhoea and vomiting are most common. Those affected may have diarrhoea or vomiting alone, or both. It is highly infectious and symptoms may come on rapidly. In order to contain the spread, the following steps are recommended.

1. If a member of staff suspects a higher than normal rate of diarrhoea or gastroenteritis consult the guidance found in “*Guidance on infection control in schools and other childcare settings (September 2014)*”
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/353953/Guidance_on_infection_control_in_schools_11_Sept.pdf.
2. Contact the parent/guardian of children who are off from school or nursery without a reason and find out if they have symptoms.
3. Collate a list of absent staff and children and include the child’s: name, address, contact phone number, GP, date of onset or reported days of absence. Information on recent farm visits or contact with animals should also be noted. In addition to this the following teams should also be informed:
 - Local Public Health England Centre Health Protection Team;
 - School Nurse;
 - Environmental Health Office.
4. Parents/guardians of children that are ill whilst at school should be contacted and requested that they come to collect their child from school or nursery.
5. Affected children should be isolated, if possible from their class mates until collected by their parent/guardian.
6. Symptomatic staff and pupils should not return to school or nursery until they have been free of symptoms for 48 hours.
7. Staff movements between classrooms and joint class activities in school, e.g. assembly, should be restricted.
8. Good hand hygiene should be enforced for all pupils and staff. A hand washing programme should be put into place that encourages children to wash their hands at the start of the school day, after using the toilet, after play, before and after eating, after touching pets and animals, and encouraging parents to let their children wash their hands at the end of the school day.
9. Liquid soap via a soap dispenser should be made available and there should be a plentiful supply of paper towels.



- 10.** Disposable aprons and gloves should be worn when cleaning touch points, cleaning and disinfecting potties, changing nappies, toileting a child or cleaning up vomit or diarrhoea. Staff should wash their hands after the removal of gloves or aprons.
- 11.** Soiled children's clothing should be sealed in a plastic bag to go home. It should not be washed on site.
- 12.** The frequency of toilet cleaning should be increased, e.g. clean after each break time and after a child has been sick or had diarrhoea.
- 13.** Touch points, e.g. taps, toilet flush handles, door handles, should be cleaned regularly with a hypochlorite (bleach based) solution 1,000 parts per million. Read manufacturer's instructions and do not use on fabrics and carpets.
- 14.** Potties should be cleaned and disinfected after use and should only be used by the same child. If this is not possible they should be cleaned and disinfected after use with 1000 parts per million hypochlorite (bleach based solution).
- 15.** Toys used by the children should be washed and if possible disinfected. Soft toys should be machine washable; hard surface toys are more easily washed and disinfected.
- 16.** Stop sand and water play, use of Play-Doh/plasticine, and cookery lessons. Sand and Play-Doh/plasticine should be thrown away.
- 17.** Cookery activities for the children should be suspended during the outbreak.
- 18.** Group visits in and out of school should be stopped until 48 hours after the last person has stopped having symptoms.
- 19.** Visitors to the school should be postponed, or if their visit is necessary then they should be informed of the outbreak and any control measures in place.
- 20.** Food should be either prepared by canteen staff or brought in by a child and consumed by that child only, i.e. no sharing of food.



Public Health England London Centre Health Protection Teams

North West London Health Protection Team

Public Health England
61 Colindale Avenue
London, NW9 5EQ

T: +44(0) 20 3326 1658 (during office hours)

T: +44(0) 1895 238 282 (out of office hours)

F: +44(0) 20 3326 1654

E: nwlhpt.oncall@phe.gov.uk

North East and North Central Health Protection Team

Ground Floor, South Wing, Fleetbank House
2-6 Salisbury, London, EC4Y 8JX

T: +44(0) 20 3837 7084 (during office hours)

T: +44(0) 207 191 1860 (out of office hours)

F: +44(0) 20 3837 7086

E: necl.team@phe.gov.uk /

South London Health Protection Team

Zone C, 3rd Floor, Skipton House
80 London Road, SE1 6LH

T: +44(0) 344 326 2052 (during office hours)

T: +44(0) 344 326 2052 (out of office hours)

F: +44(0) 344 326 7255

E: slhpt.oncall@phe.gov.uk

Communication and updates

The local HPT will not require daily updates or lists of affected persons. However the school/nursery must immediately inform the local HPT if anyone develops bloody diarrhoea, is admitted to hospital, becomes seriously unwell, or dies. If the school/nursery has any concerns/questions then they should contact HPT for advice.

****Care home to inform the following other agencies of outbreak:** OFSTED.**

Declaring the outbreak over

An outbreak is considered over when there have been no new cases for 72 hours; it is the Head Teacher/Nursery Manager's role to declare the outbreak over. The school/nursery needs to ensure that accurate records are kept so that the end of the outbreak can be identified. After the outbreak is over the school/nursery should be 'deep cleaned'. This will involve decontaminating the environment as detailed above, steam cleaning all carpets, washing all curtains. All equipment should also be decontaminated. Once the outbreak is over normal cleaning schedules can resume and any signs and posters removed.



Wet

NHS



Soap



Wash



Rinse



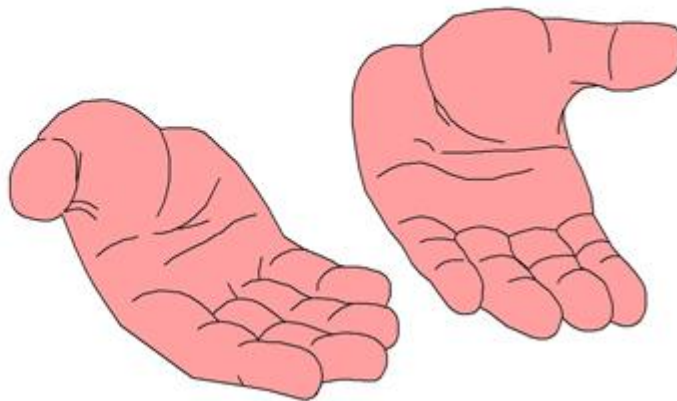
Dry

Stop germs spreading.
The power is in your hands.

Have you washed your germs away? Wash your hands.



Notice



Please wash and dry
your hands on entering
and leaving the premises



Cleaning and disinfection of the environment and equipment

Principles of cleaning and disinfection

Some infections (including Norovirus) have been shown to survive well in the environment. It is essential that there is a robust decontamination (cleaning and disinfection) regime within the institution. Cleaning and disinfection should be done twice daily as a minimum (plus as necessary) during an outbreak of diarrhoea and vomiting using clean, disposable, single use cloths and dedicated mops / mop buckets. The cleaning guidance within this document must be shown to and followed by all staff involved in cleaning (including dedicated cleaning staff/contractors). It may be necessary to contact the Local Education Authority (LEA) for schools, or the person responsible for the cleaning contract for the institution, to ensure that extra cleaning can be carried out as recommended.

Cleaning is a process that physically removes contamination (e.g. faeces) and therefore also removes many micro-organisms. Warm water and detergent (soap) should be used to clean. In most circumstances cleaning is highly effective at decontaminating equipment and the environment. However, in an outbreak situation, the environment and equipment should ideally be both cleaned and disinfected.

Disinfection is a process that reduces the number of germs to a level at which they are not harmful. Disinfection is only effective if the surfaces and equipment are cleaned thoroughly with detergent and water beforehand. Warm water and detergent should be used to clean hard surfaces, followed by disinfection with 1000ppm chlorine releasing agent / hypochlorite solution (e.g. bleach or 'Milton' solution). Bleach or Milton is the recommended disinfectant (at 1000ppm) as this will kill both bacteria and viruses, but if these are not available / suitable for the surface to be used on, a disinfectant that has both antibacterial and antiviral properties should be used.

All detergents and disinfectants must be used in accordance with manufacturers' instructions and COSHH regulations must be adhered to. Ready-to-use products should be used in preference to those requiring dilution.

During an outbreak, particular attention should be paid to cleaning and disinfecting toilet seats, toilet flush handles, door handles, commodes, wash-hand basin taps, light switches, push plates on doors, stair hand rails, lift buttons and other frequently touched areas. In special school/other settings, particular attention should also be made to cleaning and disinfecting soft play areas, changing areas, water therapy areas and special equipment, including mobility aids.

Vacuum cleaning carpets and floor buffing during an outbreak have the potential to re-circulate Norovirus and are not recommended. Carpets and soft furnishings should be steam cleaned (or steam vacuumed) using a steam cleaner which



reaches a minimum of 70°C, unless the floor covering is heat sensitive and/or fabric is bonded to the backing material with glue. If this is the case, then a suitable effective carpet shampoo, ideally with virucidal properties, should be used. Carpets should be allowed to dry before any child/staff member is allowed back into the area. Care should be taken by the steam cleaner operator not to become exposed to contaminated contents whilst emptying contents after using the machine.

If vacuum cleaners are used in non-contaminated areas, they should contain high efficiency particulate air (HEPA) filters which are regularly cleaned and disinfected.

If soft furnishings are removable (e.g. curtains, cushion covers) they should be machine washed separately on a hot wash (see laundry section).

Guidance on cleaning up vomit /diarrhoea spillages

All spillages of, and areas contaminated with, body fluid (e.g. diarrhoea or vomit) should be cordoned off and cleared up as soon as possible and the area well ventilated. If a person has vomited then the entire area needs to be decontaminated as virus particles in the vomit can travel a great distance, contaminate surfaces and put others at risk of infection.

Cleaning up vomit /diarrhoea spills

The following instructions should be used by individuals who clean up vomit or faeces in order to minimise the risk of cross-infection:

1. Spillages of body fluids should be cleared up immediately.
2. Wear disposable gloves and apron.
3. Use paper towels to soak up gross spillage. Dispose of these and any solid matter directly into a clinical waste bag.
4. Clean the soiled area with detergent and hot water, using a disposable single-use cloth.
5. Disinfect the area with freshly made 1000ppm (0.1%) hypochlorite solution. Note that hypochlorite is corrosive and may bleach furnishings and fabrics. (See below for dealing with carpets, soft furnishings and clothing.)
6. Dispose of used cloths, gloves and apron into the clinical waste bag.
7. Wash hands thoroughly using soap and water and dry them.

Cleaning carpets/soft furnishings contaminated with body fluid spills

Contaminated carpets should be cleaned with detergent and hot water and then either disinfected with hypochlorite (if bleach-resistant); otherwise, they should be



steam-cleaned. Contaminated soft furnishings should be steam cleaned or machine washed on the hottest wash possible for fabric. Care should be taken by the steam cleaner operator not to become exposed to contaminated contents whilst emptying contents after using the machine.

Guidance on cleaning clothing/linen contaminated with diarrhoea or vomit

Flush any solid material (e.g. vomit/faeces) into the toilet, avoiding splashing, or dispose of into a clinical waste bag. Manual soaking, sluicing or hand washing of contaminated items must not be carried out.

Contaminated clothing should be placed in a sealed plastic bag and taken home by the parent/guardian to be washed in a hot wash, separate from other items.

All soiled linen must be handled with care and staff must ensure that they wear the appropriate personal and protective equipment (PPE). The PPE must be disposed of in the correct waste stream and hands washed.

Guidance on toys/play equipment/activities during the outbreak

Only toys/equipment that can be cleaned and disinfected should be used during an outbreak (e.g. plastic or hard toys/equipment). These should be disinfected at least daily (use detergent and water, followed with bleach or Milton at 1000ppm). Any toys/equipment that becomes contaminated with diarrhoea/vomit should be immediately removed, then disinfected (or disposed of if this is not possible). Soft toys should not be used during an outbreak as they cannot be effectively decontaminated. Any soft toys that may have been contaminated at the start of the outbreak should be immediately removed and washed at high temperatures (>60°C) in a washing machine (or disposed of).



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Appendix 1 - Template letter for Head Teachers / Nursery Managers

Dear Sir / Madam

This letter is to advise you that in the last few weeks Public Health England has seen a general increase in outbreaks of diarrhoea and vomiting in the community.

Norovirus, more commonly called the “winter vomiting bug”, is a common virus in the winter months which causes vomiting and diarrhoea. It spreads more easily in closed/semi-closed environments, which means that those attending schools and nurseries are highly susceptible to the virus.

Good hygiene, including thorough hand washing, especially after toilet visits and before handling food, will help reduce the spread of infection.

If your school experiences a larger than expected absenteeism with illnesses of this nature, please contact the on-call team at your local Health Protection Team for advice on **<ENTER CONTACT TELEPHONE NUMBERS FOR IN & OOHs>**.

Enclosed with this letter is a Norovirus Toolkit that you may wish to use to assist you in minimising the impact of this illness in your school/nursery.

Yours sincerely



Appendix 2 - Template letter for Parents

Dear Parent/Carer,

We have been informed that several children at your child's school/nursery have experienced diarrhoea and vomiting. The exact cause of these symptoms is not confirmed; however the commonest cause of outbreaks of diarrhoea and vomiting in institutions is Norovirus (winter vomiting bug). This letter is to advise you on common symptoms of Norovirus, and what you can do to reduce the spread of the infection.

What are the symptoms?

- Diarrhoea and vomiting, usually lasting 1 -2 days.

What should you do if your child is unwell?

- Make sure they get lots of rest and drink plenty of fluids.
- If your child is unusually sleepy, won't take fluids or has other symptoms, e.g. blood in their stool, call NHS 111, contact your GP or take your child to hospital.
- Inform the school/nursery that your child is ill and what symptoms they had.
- Keep your child at home until they are well enough to return to school AND they have been clear of diarrhoea and vomiting symptoms for 48 hours.
- Keep your child away from other children and people that are particularly vulnerable, e.g. the elderly and those with chronic illnesses.

How can you prevent the spread of these infections?

Hand washing is the most important way of preventing the spread of gastrointestinal infections – this applies to the child who is ill AND the person(s) looking after them.

Hands should always be washed, using liquid soap if possible:

- Before and after caring for your child.
- After using the toilet.
- Before eating or handling food.
- After cleaning up a mess (e.g. vomit, faeces or urine).

Other ways of preventing the spread of infection are to:

- Keep a separate towel for family members who have symptoms.
- Machine-wash soiled clothing, bed linen and towels on hottest wash for that fabric.
- Clean baths and washbasins thoroughly and disinfect after use.
- If cleaning up diarrhoea /vomit, wash the surface with hot soapy water and disinfect.

Yours sincerely