

## **Norovirus – “Winter Vomiting Disease”**

### **Advice for Schools**

Norovirus is the most common cause of infectious gastroenteritis in England and Wales. Although relatively mild, norovirus illness can occur at any age because immunity to it is not long-lasting. The disease was historically known as 'winter vomiting disease' due to its seasonality and typical symptoms.

### **Incubation period**

Usually 24 to 48 hours.

### **Symptoms**

Symptoms will 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. 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.

### **Infectivity**

The infective dose is extremely low.

Infectivity lasts for 48 hours after symptoms have ceased.

### **Spread**

Noroviruses are found in the stool and vomit of infected people. People can become infected with the virus in several ways:

- eating food or drinking liquids that are contaminated with norovirus
- touching surfaces or objects contaminated with norovirus (e.g. toilets, taps, flush handles, door handles), and then placing their hand in their mouth
- having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness, or sharing foods or eating utensils with someone who is ill)

Illness can result from contact with a very small dose of virus e.g. invisible particles contaminating the area surrounding a vomiting incident.

## **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. Outbreaks can be difficult to control and long-lasting. Because there are many different strains of Norovirus, and immunity is short-lived, outbreaks tend to affect more than 50% of susceptible people. Any semi-closed environment where large numbers of people congregate for periods of several days (e.g. schools, care homes, cruise ships, hospitals) provides an ideal environment for the spread of the disease.

## **Prevention of an outbreak**

The same principles apply as for other diseases involving vomiting and/or diarrhoea:

Good hygiene is the mainstay of the prevention as vomiting/diarrhoeal diseases can spread rapidly and it is not always easy to identify cases early enough to stop them spreading their illness to others. If cases of diarrhoea and/or vomiting occur in school it is important that meticulous attention is paid to hygiene.

Vomiting causes widespread contamination of the surrounding area (clothing, furniture, flooring, doors and handles, items like pencils or other equipment nearby) through spraying of particles too small to be seen by the naked eye. Anything potentially contaminated needs thorough cleaning with hot soapy water.

- Children and staff should be informed about the importance of both personal hygiene and of hygienic practices when serving, preparing and eating food. Parents should also be informed about the need for good hygiene at home as these diseases also spread rapidly within the community.
- Both pupils and staff should wash their hands thoroughly with soap and hot water after every visit to the toilet and before handling or eating food, and should dry them on single use paper towels. Young children may need supervision to ensure that adequate hand washing takes place.

An adequate supply of toilet paper, soap and paper towels should be available in school toilets at all times.

- Toilet bowls, seats and flush handles along with any other surfaces that may have been touched by contaminated hands (i.e. door handles, tap handles etc.) should be disinfected daily. A simple solution of a disinfectant at the correct dilution is all that is required.

- The wash hand basins in toilet blocks should not be used for drinking water and the use of communal drinking fountains should be discontinued.

### **An outbreak situation**

The school nurse should be made aware of the occurrence of more than one case of diarrhoea in any particular class, or 3 or more in school. This situation would be regarded as an outbreak. It is important that any outbreak is responded to quickly. The SYHPU should be contacted for help and advice.

### **Exclusion periods**

Those who have been infected should be excluded for up to 48 hours after their symptoms have ceased.

### **Treatment**

Like all viral infections, norovirus does not respond to treatment with antibiotics. 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.

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### **Advice for parents**

#### **What are noroviruses?**

Noroviruses are a group of viruses that cause “stomach flu,” or vomiting and diarrhoea in people. Like all viral infections, noroviruses are not affected by treatment with antibiotics, and cannot grow outside of a person’s body. The amount of norovirus needed to become unwell with vomiting and diarrhoea is extremely small, making it very easy to transmit illness from person to person.

#### **Symptoms**

The symptoms are nausea, vomiting, which is often sudden and “projectile”, diarrhoea and sometimes both. Some people may have a raised temperature, chills, stomach cramps, headaches and aching limbs. The illness often begins suddenly, and the infected person may feel very sick. Norovirus affects people of all ages. In general, children experience more vomiting than adults.

#### **When do symptoms appear?**

Symptoms of norovirus illness usually begin about 24 to 48 hours after contact with the virus, but they can appear as early as 12 hours after exposure.

#### **Are noroviruses contagious?**

Noroviruses are very contagious and can spread easily from person to person. Both stool and vomit are infectious. Particular care should be taken with young children in nappies who have diarrhoea.

#### **How do people become infected with noroviruses?**

Noroviruses are found in the stool or vomit of infected people. Anyone can become infected with these viruses. There are many different strains of norovirus, which makes it difficult for a person’s body to develop long-lasting immunity. Therefore, norovirus illness can recur throughout a person’s lifetime. People can become infected with the virus in several ways:

- eating food or drinking liquids that are contaminated with norovirus
- touching surfaces or objects contaminated with norovirus (e.g. toilets, taps, flush handles, door handles, furniture) and then placing their hand in their mouth

- having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness, or sharing foods or eating utensils with someone who is ill)

### **How long will my child be contagious for?**

48 hours after symptoms have gone away.

### **How serious is norovirus disease?**

People may feel very sick and vomit many times a day, but most people get better within 1 or 2 days, and they have no long-term health effects related to their illness.

### **How long does my child need to be excluded from school?**

Children who have been infected should not go to school for 48 hours after their symptoms have gone away.

### **What treatment is available for people with norovirus infection?**

Norovirus infection cannot be treated with antibiotics. This is because antibiotics work to fight bacteria and not viruses. There is no specific treatment for norovirus apart from letting the illness run its course. It is important to offer plenty of drinks (water, dilute fruit juice) to your child to prevent dehydration.

### **Can norovirus infections be prevented?**

You can decrease your chance of coming in contact with noroviruses by following these preventive steps:

- Frequently wash your hands, especially after toilet visits and changing nappies and before eating or preparing food
- Carefully wash fruits and vegetables
- Thoroughly clean contaminated surfaces immediately after an episode of illness, with hot soapy water, remembering that vomiting sprays infectious particles too small to be seen by the naked eye over a wide area
- Immediately remove and wash clothing or linens that may be contaminated with virus after an episode of illness (use hot water and soap)
- Flush or discard any vomit and/or stool in the toilet and make sure that the surrounding area is kept clean
- Should you (parent/carer) become unwell with diarrhoea and/or vomiting, you should not prepare food while you have symptoms and for 48 hours after you recover from illness. Food that may have been contaminated by an ill person should be disposed of.