

# Gloucester City Council

## *Environmental Health Factsheet*

### **VIRAL GASTRO-ENTERITIS IN NURSERIES**

#### **What is Viral Gastro-Enteritis?**

*“An illness involving inflammation of the stomach and intestines which is caused by a virus”.*

There are many different kinds of virus that can cause viral gastro-enteritis symptoms for example, rotavirus, calicivirus, astrovirus and most notably Norwalk-like viruses (NLVs).

This factsheet specifically concentrates on NLVs as these have been a major cause of gastro-enteritis in recent years. However, much of the advice included in the factsheet can be applied to any cases/outbreaks of viral gastro-enteritis.

#### **What is Norwalk-like Virus? (NLV)**

The Norwalk group of viruses are one of a number of small round viruses which have in recent years been associated with gastro-enteritis. They are extremely small particles which cannot be seen by the naked eye.

#### **How common is NLV?**

NLV is the most common cause of infectious intestinal disease in the UK with an estimated 600,000 - 1 million cases in England a year.

#### **Where does NLV occur?**

Hospitals and residential care homes are affected most by outbreaks of NLV. Hotels, restaurants, schools and nurseries are also common places for outbreaks of the virus to occur. NLV is most likely to affect places where there are large groups of people and particularly vulnerable groups, for example the sick, elderly and young children. Standards of personal hygiene may be lower within these groups and the virus spreads quickly among large groups of people, particularly if the person vomits, without warning.



#### **ENVIRONMENTAL HEALTH**

Gloucester City Council    Tel 01452 396396    Fax 01452 396340  
Herbert Warehouse        Email [enviro@gloucester.gov.uk](mailto:enviro@gloucester.gov.uk)  
The Docks                    Minicom 01452 396161  
Gloucester GL1 2EQ        [www.gloucester.gov.uk](http://www.gloucester.gov.uk)



**GLOUCESTER**  
**CITY COUNCIL**

## **What are the symptoms of NLV?**

NLV usually causes mild and short lived illness. Symptoms include mild to projectile vomiting, diarrhoea and nausea. Symptoms normally last for 24-48 hours.

## **How is it spread?**

It can take anywhere between 4 and 72 hours of the virus being in the body before symptoms start. Studies have shown that less than 10 virus particles are necessary to start infection.

Projectile vomiting, which is often without immediate warning, leads to widespread contamination of the area and aerosols containing the virus being present. This can lead to others picking up the virus by inhaling it or from food or water which has been contaminated with the virus.

People can also pick up the virus through touching a surface contaminated with the virus and then touching their mouth.

## **What do we do if someone suspected of having NLV is sick in a shared area?**

### **ACT IMMEDIATELY**

- Due to the low number of viruses needed to cause a person to become infected, where any vomiting occurs in toilets or common areas, the area should immediately be cordoned off prior to the suggested cleaning routine being undertaken. The use of some form of hazard warning tape is recommended to prevent access.
- Staff must be advised on the methods to prevent other persons gaining access into these areas until the cleaning staff can undertake the cleaning procedure. Further guidance on the cleaning procedure is given later in this factsheet.
- Signs stating that toilets are out of use may need to be used during the cleaning process and for a period afterwards to allow for surfaces to dry.
- Cleaning of children's and staff toilets will need to be increased in frequency to several times a day and at the height of an outbreak should preferably be hourly.
- A member of staff should be given the responsibility of undertaking a regular tour of all public areas as this may identify those needing urgent cleaning, rather than wait for a child to advise staff of an incident of sickness.

## **Guidelines if an outbreak of viral gastro-enteritis occurs**

1. A **single person** should be designated in overall charge of co-ordinating the outbreak at the nursery. This is more likely to be effective as staff can turn to one person for advice.

2. A **"Hit Squad"** of trained cleaning staff should be on hand at short notice throughout the day until the incident in question has ceased.
3. It is strongly recommended that children who have been ill are taken into a **segregated area and avoid shared areas**.
4. Children who have been ill must be **excluded** from the nursery as soon as possible.
5. It is important to **prevent any staff becoming affected** during cleaning operations and therefore single latex gloves and disposable aprons should be made available and used. These need to be removed, placed in secure plastic bags after each affected area or room has been cleaned, the waste carefully and promptly removed and stored for collection. After cleaning rooms, staff should carry out thorough hand washing with soap and hot water. Clean gloves and aprons should be used for each affected area to be cleaned.
6. Once notified of any case of sickness, **immediate action** should be taken to clean this or any diarrhoea up and the following steps followed:-

a) **Removing gross contaminant**

Paper towels should be used to cover and remove any gross contaminant of vomit or faecal material and these should be placed in a plastic bag that is securely sealed with a wire / plastic tag. This waste must be treated as **clinical waste** and dealt with appropriately.

b) **Disinfection**

Affected surfaces must be cleaned with hot water and detergent and then be disinfected with a 1000ppm (0.1%) bleach solution. The use of bleach solution to disinfect soft furnishings should be avoided, as this may cause bleaching of the material.

c) **Thorough Cleaning**

Viruses are liberated by vomiting and diarrhoea, producing a droplet effect, meaning all surfaces in the immediate vicinity will be contaminated. Therefore, vomiting in bathrooms or baby changing rooms must result in the thorough cleaning of the basin, toilet, the floor, walls and all fixtures, such as toilet paper holders, towel rails, flush handles, light switches, shelving etc., with hot water and detergent. Following cleaning, hard surfaces may be disinfected with a bleach solution and all soft furnishings, such as towels, curtains, changing mats etc. should be changed. These materials can be adequately washed on a hot wash cycle of a washing machine (above 60°C). Carpeting and seating should be cleaned using a professional cleaner that includes a hot water and detergent extraction system.

**d) Cloths and Towels**

- Separate cleaning cloths for different areas must be used. These should not be used to clean any other area. Disposable paper towels should also be used in the same way.
- The cleaning cloth used to clean the bathroom should be used in such a way that cleaning ends with the toilet or alternatively a further separate cleaning cloth used to clean the toilet bowl.
- Used hand towels should not be used to dry off wet surfaces, as this may only re-contaminate areas that have been effectively disinfected.
- Toilet brushes and holders should be cleaned in a separate container or bucket with a bleach solution, which is then disposed of between each affected room.

**e) Drying**

Cleaned and disinfected surfaces should be dried with disposable paper towels and windows to rooms left open to allow air-drying.

**f) Remaining Bleach Solution**

This should be flushed away and must not be re-used to clean another area, as this may provide the potential for transferring viruses to new locations.

**g) Cleaning Trolleys / Equipment**

These should be thoroughly disinfected after each use in each room. Mops should be cleaned in an equipment sink, not a kitchen sink; rinsed with a disinfecting solution and dried.

**h) Affected Materials**

Any potentially affected materials, including bed linen, furnishings, towels, etc. should be bagged and securely tied, prior to the removal from one area to another. If an outside laundry is being used, then they should be advised of the incident in order that their cleaning routines do not put themselves at risk. Hand towels should be changed daily as a minimum, although the use of disposable paper towelling may be more sensible.

**i) Affected Rooms**

Wherever possible, affected rooms, once cleaned, should be left unoccupied for 72 hours to allow any remaining viruses to die before a final clean is carried out.

## **Is there anything else we can do to prevent spread of NLV?**

### **YES - YOU SHOULD IMPLEMENT THE FOLLOWING GOOD HYGIENE PROCEDURES:-**

1. Always wash your hands after using the toilet and before eating or handling food use warm, running water and a mild, antibacterial liquid soap.
2. When washing hands, rub hands together vigorously until a soap lather appears and continue for at least 15 seconds. Ensure all surfaces of the hands are covered. Rinse hands under warm water and dry with a hand dryer or clean towel (preferably paper).
3. If a food handler has diarrhoea or vomiting exclude them from work, request they go to the doctors and give a stool sample. Food handlers must be clear of symptoms for 48 hours before returning to work. Contact Environmental Health for more information if required.
4. Keep toilets clean and disinfect them regularly.
5. Discard disposable towels in a bin. Bins with foot pedal operated lids are preferable.
6. Encourage the use of handkerchiefs when coughing and sneezing.
7. Always wash your hands thoroughly after changing nappies. Changing mats should be disinfected between uses with a bleach based chemical or alcohol wipes. Soiled nappies are classed as clinical waste and must be disposed of appropriately.

### **Exclusion**

The recommended time to keep children with symptoms of NLV off school or nursery is as follows:-

1. Children over 5 years old: symptom free for 24 hours.
2. Children under 5 years old and older children unable to maintain good personal hygiene: 48 hours symptom free.

It is recommended that stool or vomit samples are taken from the child in order to eliminate possible bacterial causes of the symptoms.

### **Clinical Waste**

The waste from cleaning vomit and faecal material is classified as clinical. The waste must be identified separately. Special arrangements must be made for its removal, except where small quantities are handled, in which case it can be put in with your trade waste. The Environment Agency (01684) 850951 can be contacted for further information on clinical waste.

**Further information on infection control can be obtained from:**

“Our Healthier Nation - Guidance on infection control in schools and nurseries”,  
Department of Health, 1999.