Health Protection Scotland

NHS National Services Scotland

The Identification and Management of Outbreaks of Norovirus Infection in Tourists and Leisure Industry Settings

Guide for NHS Boards and Local Authorities

Prepared by a Joint Working Group from NHS Boards, Local Authorities and Health Protection Scotland.

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2.0 Introduction

2.1 Laboratory reports and outbreaks of norovirus (NV) infection have increased substantially in recent years. Most outbreaks occur in closed or semi-closed communities, especially hospitals, nursing homes and leisure industry settings such as hotels, holiday and caravan camps, and coach parties. NV was previously called Small Round Structured Virus (SRSV) or Norwalk-like virus (NLV) and causes what many people still call 'Winter Vomiting Disease' although it can occur at any time of year.

2.2 NV is highly infectious. It has an incubation period of between 10 and 50 hours (usually 24-48 hours). Transmission is usually from person to person by the faecal oral route, although it may also occur from aerosols or environmental contamination, especially following faecal accidents or projectile vomiting. Infected food handlers pose a particular risk, and some foods, especially bivalve molluscs, and water may be contaminated before entering the kitchen. Infectivity lasts for at least 48 hours after resolution of symptoms.

2.3 The most prominent symptom is vomiting, often projectile, though nausea, diarrhoea, headache, fever and muscle aches also occur. The illness is generally mild and short lived (12-72 hours) though people with pre-existing chronic medical conditions may develop more serious symptoms. Treatment in most cases requires an increased consumption of fluids but some people may wish to seek medical advice.

2.4 Although this guidance is not specifically aimed at cruise ships and residential homes it may be useful in managing outbreaks within these environments.

3.0 How to use this pack

3.1 This guide has been revised by a Working Group consisting of Local Authority (LA) Environmental Health Officers (EHOs), NHS Board (NHSB) Consultants in Public Health Medicine (CPHM), an Infection Control Nurse (ICN) and from Health Protection Scotland (formally Scottish Centre for Infection and Environmental Health) (HPS) a Consultant EHO, a Consultant Epidemiologist, a Nurse Consultant in Infection Control, an Environmental Law Consultant and a Specialist Registrar.

3.2 This guide aims to provide accessible advice to EHOs, CsPHM and Public Health ICNs (PHICNs) on how to identify and manage outbreaks of NV infection in the leisure industry setting. Final decisions on all aspects of management and control ultimately remain at local level. To keep the guide as brief, clear and easy to use the style is somewhat didactic in places. Nevertheless it can only inform local professional judgement, it is not a substitute for it. It should not, therefore, dissuade the reader from seeking more expert assistance if required. Further advice is available to industry through trade associations, EHOs, CsPHM and PHICNs. EHOs CsPHM and ICNs can obtain further information from HPS.

3.3 The guide describes the Working Group's opinion of the responsibilities of EHOs, CsPHMs, leisure industry management (LIM) and staff, and HPS. It contains examples of standard forms for the reporting and monitoring of incidents, and guides for LIM, staff, and guests, which we suggest EHOs and CsPHM jointly adapt for local use. This has necessitated some repetition, but we believe that this is warranted for ease of use.

3.4 NHS boards throughout Scotland vary in their approach to routine investigation and monitoring of NV outbreaks. In many instances this key role is the responsibility of PHICN. There are numerous references throughout this document to EHOs and CsPHM due to their statutory responsibilities however in order to reflect the key role played by PHICNs references to CsPHM should be read as PHICN if appropriate in local circumstances.

4.0 Overview of Roles and Responsibilities

4.1 Leisure Industry Managers

4.1.1 It is the Leisure Industry Manager's (LIM) responsibility to

- Identify the existence of cases and report the matter as quickly as possible to the EHO, CPHM or PHICN.
- Provide appropriate cleaning procedures, materials, equipment and staff training/awareness of these measures.
- Provide immediate advice to the guests/affected persons/relatives.
- Maintain a record of cases as directed by the EHO, CPHM or PHICN.
- Implement control measures as directed by the EHO, CPHM or PHICN. These may include closing premises to allow for thorough effective cleaning and disinfection or to provide an opportunity to break the chain of infection.

4.1.2 There is no UK authority on whether in terms of common law a hotel proprietor owes a duty of care to prevent residents infecting each other with pathogenic organisms.

However, civil law in general, sets its face against imposing a duty of affirmative action on an individual proprietor to prevent harm befalling others particularly where the relationship/control is not close.

All employers do have an obligation under law to protect the health, safety and welfare of their employees.

4.2 Environmental Health Officers

4.2.1 The EHO shares with the CPHM and PHICN the responsibility for the control of communicable disease. In particular they are obliged to:

- Investigate the origin and cause of illness.
- Take specimens and samples for analysis.
- Carry out an inspection of premises.
- Interview staff and guests.
- Advise on good hygiene practices.

- Advise on control strategies.
- Implement outbreak control measures.
- Co-ordinate control plans.
- To consider the potential for formal action in the event of food being identified as the source.
- Prepare ‘after the event’ reports for discussion and implementation of the lessons learned.
- Advise on preventive measures.

4.2.2 Local Authority Environmental Health Departments have a range of enforcement powers and notwithstanding paragraph 4.1.2 consideration should always be given in the context of specific outbreaks whether action may be appropriate in terms on any of the following statutes:

- Food Safety Act 1990.
- Environmental Protection Act 1990 (Nuisance Procedures).
- Health & Safety at Work etc Act 1974.

Ultimately it is the responsibility of the EHO to consider the enforcement options that may be available but should do so in consultation with the Designated Medical Officer and if necessary the council’s legal advisers.

4.3 Consultant in Public Health Medicine

4.3.1 The CPHM shares with the PHICN and EHO the responsibility for the control of communicable disease. In particular they are obliged to:

- Co-ordinate responses in large outbreaks.
- Advise on infection control measures.
- Consider and document the epidemiology of cases.
- Ensure stool samples are submitted as soon as possible and to make the necessary arrangements for their analysis.
- Ensure that appropriate medical care is available for patients and those displaying symptoms.

4.3.2 NHS Boards have a range of enforcement powers and consideration should always be given in the context of outbreaks whether action maybe appropriate in terms of any of the following responsibilities and specific statutes.

- National Health Service (Scotland) Act 1978.

  Section 13 – Co-operation of NHSBs and LAs.

  Section 14 – Designation of Medical Officers for LAs.

- Health Services and Public Health Act 1968

  Section 71 (1) – Food poisoning cases to discontinue work.

  Section 71 A – NHSB to pay fees for notification by medical practitioner.

  Section 71(2) – LA to compensate for loss.

  Section 72(1) and (2) – Sheriff's power in the interest of public health to have persons suspected of suffering from infectious disease medically examined.

  Section 73(1) – Right of DMO to enter premises.

- Public Health (Scotland) Act 1897

  Section 57 – prohibition on children who may spread infection attending school.

  Section 58 – Prohibitions on infected persons carrying on business.

- Infectious Diseases (Notification Act) 1889

  Section 3(1)(a) – Where human infectious disease is found in any building, the head of the family, nearest relative, the occupier of the building or the person in attendance shall notify the CAMO.

4.4 Infection Control Nurse

4.4.1 Most NHS Board Public Health Departments have a PHICN within their communicable diseases team. In the event of outbreaks they may undertake a similar role to that of the CPHM with particular emphasis on the provision of advice on infection control measures.

5.0 Outbreak Management

5.1 Outbreak Reporting

5.1.1 EHOs should make available 'Gastroenteritis Outbreak Alert Forms' (*Form 1a*, see section 7.1) to LIMs to report the occurrence of potential outbreaks of gastroenteritis. If LIMs report potential outbreaks by other means, EHOs should ensure a *Form 1a* is completed. Potential outbreaks may, of course be identified by other routes. GPs in particular should be encouraged to report them by telephone as soon as possible. The EHO should fax or email *Form 1a* to the CPHM once they become aware of a potential outbreak. The CPHM will inform the microbiology laboratory by fax or email as soon as possible.

5.2 Risk Assessment

5.2.1 Following receipt of an Alert the EHO or CPHM should routinely visit the establishment or facility complete a 'Risk Assessment Form' (*Form 1b*, see section 7.1) and ensure that an initial 'Outbreak Monitoring Form' (*Form 1, Appendix*, see section 7.1) is also completed. These will be faxed or emailed to the CPHM, to provide basic epidemiological data of the outbreak at an early stage.

5.2.2 Following the initial visit, the CPHM and EHO will liaise and make an assessment of the outbreak. In the event that a joint visit is not necessary, it will be agreed who will proceed with the investigation. This will usually be the EHO.

5.2.3 For most outbreaks a joint EHO/CPHM visit will not be necessary. If in doubt, a joint visit should be made. Liaison between EHO and CPHM should continue until the outbreak is over.

5.3. Joint Visit

5.3.1 If it is decided that a joint visit is warranted, it should be made on the same day as the Alert was received if at all possible.

5.3.2 Criteria for joint visits include the presence of any of the following:

- Probable or likely food-borne outbreak.
- Clinical presentation suggesting aetiology due to pathogens other than NV, including severe disease, hospital admissions or deaths.
- High attack rate or large numbers of cases (these are impossible to define with precision).

5.3.3 Purpose of joint visit is to:

- Describe the epidemiology of the incident and decide if an outbreak is occurring.
- Establish preliminary hypothesis of the outbreak's nature, cause and source.
- Ensure appropriate specimens and samples are submitted.
- Put in place control measures.
- Decide whether outbreak warrants implementation of Major Outbreak Plan.
- Provide advice, assistance and back-up to LIM for outbreak management.
- Complete 'Joint EHO/CPHM Visit Form' (*Form 1c*, see section 7.1) within 24 hours.

5.4 Outbreak Monitoring

5.4.1 Outbreak Monitoring Forms (*Form 1, appendix* see section 7.1) should be completed daily by the LIM and faxed or emailed to EHO or CPHM as directed. The progress of the outbreak will be monitored and liaison between the EHO and CPHM will continue until the outbreak is over.

5.5 Outbreak documentation

5.5.1 When the outbreak is over, the EHO and CPHM should produce a final Outbreak Report (see model *Appendix 1*) and complete HPS Summary Outbreak Report Form (*Form 2,* Section 7.1).

5.5.2 The final Outbreak Report should be published and sent to all interested parties and the Summary Outbreak Report Form should be sent to HPS.

5.5.3 Outbreak Reports should be produced for all outbreaks that warrant the calling of an Outbreak Control Team.

6.0 Risk Management

6.1 Cleaning and Decontamination

6.1.1 NV can be spread through contamination of the environment i.e. bedrooms, public areas, coaches etc. and following an incident such as projectile vomiting infection can occur rapidly.

For this reason it is particularly important that incidents of vomiting and diarrhoea are dealt with promptly and effectively to minimise the potential risk of infection to others either in or coming into the proximity of the incident.

6.1.2 There is a duty on LIMs to ensure that any cleaning/decontamination procedures have been properly risk assessed in terms of The Health & Safety at Work etc Act 1974 and supporting regulations to ensure suitable and sufficient protection to the staff involved.

6.1.3 More specific advice is provided in the LIM Cleaning Guide in section 7.2.2.

6.2 Standard Infection Control Precautions and Isolation

6.2.1 Standard Infection Control Precautions

While it is recognised that applying strict standard infection control precautions in the leisure industry setting presents practical difficulties, this is ideally what should be achieved. The mainstay of standard precautions is scrupulous hand washing. Washing the hands with soap in warm running water, and drying, is the most important factor in preventing the spread of gastro-intestinal infections. Leisure industry staff, relatives and others must wash their hands after contact with sick people, handling their clothes, bedding, or other contaminated articles and always after removing disposable gloves. Everyone should always wash their hands after going to the toilet or changing babies' nappies and before preparing or serving food or eating meals. Other standard precautions, such as decontamination and disinfection are addressed in Section 7.2.2

6.2.2 Isolation of cases

The isolation of cases is controversial. It is unlawful to confine cases or their contacts to their rooms against their will. Having said that, it is desirable that symptomatic cases should come into contact with as few other people as possible. The likelihood of someone without symptoms, or the contact of someone without symptoms, passing on infection is very low, and would not warrant asking them to restrict their movements. In the hotel setting, we believe it would be wise, however, to advise symptomatic cases to remain in their rooms until they are well. There is no hard and fast rule to help decide how long a case should remain without symptoms until they are deemed 'well'. PHLS/HPA Guidance suggests exclusion for 48 hours for high-risk groups, but as hotel guests are not a high risk group, a period of 24 hours after the last vomit or loose stool would seem reasonable, if agreed to by the guest. The issue of the isolation of coach passengers poses practical difficulties. Once a passenger has vomited on a coach the other passengers have already been put at risk. Removing the case from the coach is nevertheless probably the best solution from the point of view of control, but must be weighed against what is practical, and what is in the interests of the case. For example it would not be appropriate for the driver to remove a sick passenger at a lay-by to await a taxi home, or to a hotel, even with their consent. Under these circumstances, the least movement of the case around the coach compatible with the most efficient disinfection of their surroundings is probably the best that can be achieved. This is dealt with in Section 7.2.2 (Cleaning Guide) and 7.2.4 (Guide for coaches and third party premises)

6.3 Environmental Health Officers

6.3.1 In any incident, it is essential that effective preventive controls are implemented to mitigate any further spread of infection to staff or guests within the premises.

In general terms, for NV the controls will include: enhanced cleaning and disinfection procedures, isolation of cases and increased monitoring to evaluate the impact of these controls.

6.3.2 If the outbreak is not being effectively controlled, i.e. if the daily number of new cases is steady or rising, further control measures must be considered. There will be a need for additional measures to be taken where one or all of the following exist:

- The management and cleaning procedures are not being adhered to and the cases of NV continue to occur.

- Cases of NV continue to infect staff or guests who have had no immediate contact with the initial case(s). This illustrates the presence of NV within the environment of the premises.

- Infection of guests over a period in excess of one week.

The situation shall be discussed by the EHO, CPHM, PHICN and the LIM to determine the options and further controls. These options include:

- Stop taking new guests.

- Closure of affected bedrooms and/or common areas.

- Full closure of the premises.

6.3.3 Where there is a reluctance to undertake these measures on behalf of the management, the use of formal powers requires to be considered by the Local Authority to achieve their objectives. The CPHM is the Council's designated Medical Officer of Health and has the power to exclude cases, contacts or carriers of infection from work and school.

6.3.4 The consideration and initiation of any formal enforcement action is a matter for each Local Authority to determine following careful consideration of the circumstances.

6.3.5 Where an outbreak exists and the guests/coach, etc, are to travel to another hotel or premises outwith the immediate area, the EHO, CPHM or PHICN shall contact their colleagues at the destination to advise them of the situation.

7.0 Examples of Forms and Guides

7.1 Forms for EHOs, CsPHM and PHICNs

Form 1a:

‘Preliminary Report of Potential Outbreak’
For use by LIM and EHOs to report to CPHM

Form 1b:

‘Outbreak risk assessment form’
For assessing need for joint visit EHO/CPHM for use by EHO and CPHM for records

Form 1c:

‘Joint EHO/CPHM Visit Form’
For use by EHO/CPHM to record results of joint visit

Form 1, Appendix:

‘Outbreak monitoring form’
For use by LIM and EHO to report to CPHM

7.2 Guides for LIM Management, Staff and The Public

7.2.1 LIM: General

7.2.2 LIM: Cleaning

7.2.3 Staff

7.2.4 Guests and Holidaymakers

7.2.5 Relatives and Friends

7.2.6 Coaches and Third Party Premises

FORM 1a

Ref No:

Potential norovirus Infection in Leisure Industry Setting
PRELIMINARY REPORT OF POTENTIAL OUTBREAK

Name and address of Hotel or Tourism Facility (e.g. bus company)

Date of Report

Time of Report

Name of Reporting Person

Contact Details of Reporting Person

Address:

Tel:
Fax:
Email:

Other Contact Numbers

Brief Summary of Known Illness

Symptoms:	***Diarrhoea***		***Number***	
	Vomiting		***Number***	
	Nausea		***Number***	
	Other symptoms		***Number***	

Total

Date of Onset of First Person Affected

Estimated number of persons at risk

Actions taken to date

Please return this form by fax to both:

Dr **********
Consultant in Public Health Medicine
Fax: 0
Tel: 0

Mr ********
Chief Environmental Health Officer
Fax: 0
Tel: 0

FORM 1b

Ref No:

Potential norovirus Infection in Leisure Industry Setting
OUTBREAK RISK ASSESSMENT FORM

Name and Address of Hotel or Tourism Facility (e.g. bus company)

History of Current Outbreak

Criteria for norovirus: ***Are they met?***

		Yes	***No***
1.	***Vomiting (often projectile) in >25% and up to 50% of cases***		
2.	***Duration of illness (12-72 hours)***		
3.	***Incubation Period (12 – 48 hours)***		
4.	***Guests and staff affected***		
5.	***Negative bacteriology***		
6.	***Positive norovirus PCR or other diagnostic test e.g. norovirus ELISA positive***		

If 4 out of 6 criteria met, assume norovirus and manage accordingly.

Outbreak Monitoring Form Completed **Yes** ☐ **No** ☐
(See Appendix)

(If yes, produce epidemic curve and attach as part of risk assessment)

Source of outbreak

Progress of Outbreak

Preliminary Hypothesis

Inspection of food preparation, handling and storage completed ?

Yes ☐ **No** ☐

Stool specimens submitted?

Yes ☐ **No** ☐

CONTROL MEASURES INSTITUTED

	Yes	No
Hand hygiene emphasised	☐	☐
Good hygienic hand washing practice demonstrated	☐	☐
Restriction of movement advised where possible	☐	☐

Closure of affected bedrooms and/or public areas ☐ ☐

Please elaborate _____

_____

Symptomatic staff excluded from work until 48 hours free of symptoms ☐ ☐

Please elaborate _____

_____

Cleaning regime advice given ☐ ☐

Terminal cleaning of rooms advice and leaflet given ☐ ☐

Norovirus infection control guides provided ☐ ☐

Other infection control measures agreed

Outbreak Risk Assessment Form (Form 1b) and Outbreak Monitoring Form (see Appendix) faxed/emailed to CPHM?

Yes ☐ **No** ☐

Joint CPHM/EHO Visit Necessary?

Yes ☐ **No** ☐

Signature _____

Date _____

FORM 1c

Ref No:

Potential norovirus Infection in Leisure Industry Setting

JOINT EHO/CPHM VISIT

Name and Address of Hotel or Tourism Facility (e.g. bus company)

	Yes	No
Potential Outbreak Report (Form 1a)? Completed		
Outbreak Risk Assessment (Form 1b) Completed		
Are > 4 criteria for norovirus Infection Satisfied?		

List

Reason for Joint Visit

Nature of Outbreak

Epidemiology of Outbreak (attached figure in Appendix 1)

Inspection of food preparation, handling and storage completed?

Yes ☐ **No** ☐

Progress of Outbreak

Control Measures in Place

	Yes	***No***
Handwashing Compliance	☐	☐
Good Hygienic Handwashing Practice demonstrated	☐	☐
Staff/client movement minimised	☐	☐
Closure of affected bedrooms and/or public areas	☐	☐

Please elaborate

	Yes	No
Symptomatic staff excluded until 48 *hours free of symptoms*	☐	☐
Recommended cleaning regime in place	☐	☐
Terminal cleaning of rooms completed as per guidance	☐	☐
Facility closed. Please elaborate	☐	☐
Visitors Restricted	☐	☐

_____

_____

Other control measures implemented

_____

_____

_____

Follow up

Test Results of Stool Specimens

	Yes	*No*
CPHM advised by fax/secure e mail	☐	☐
Outbreak Monitoring Form (see Appendix) Completed on daily basis	☐	☐

Signature _____

Date _____

Ref No:

Form 1 Appendix

OUTBREAK MONITORING FORM

HOTEL OR TOURIST FACILITY _____ **DATE** _____ **TIME** _____

No	Room No	SURNAME	FORENAME	DOB	STAFF OR GUEST/ CLIENT	DIAGNOSIS (if relevant to D&V)	SYMPTOMS D/V/ Nausea etc	DATE of Onset	DATE of Last Symptoms	SPECIMEN TAKEN Yes/No & Date	RESULTS & Date

Health Protection Scotland

NHS National Services Scotland

HPS CODE: ☐☐-☐-☐☐

General outbreaks of infectious intestinal disease

Please fill in this form when the outbreak investigation is complete

(Tick & return blank form if: **Not an outbreak** ☐ or **Duplicate** i.e. form already completed or in progress ☐)

Form completed by:

Name ..... **NHS Board** .....

Position ..... **Local Authority (of outbreak location)** .....

The illness:

Pathogen or disease .....

Confirmed ☐ **Suspected** ☐ **Phage/serotype + toxins** .....

Suspected mode of transmission: (Please tick only one box)

Mainly foodborne	☐	**Multiple modes including foodborne**	☐
Mainly waterborne	☐	**Multiple modes excluding foodborne**	☐
Mainly person-to-person	☐	**Other**	☐
Mainly environmental	☐	**If other, please specify**	.....

The place:

Mainly food or water: ***where prepared*** or ***source*** takes precedence. Any other mode: where outbreak ***occurred***. Tick one box only.

Private house (excl. farm)	☐	
Farm	☐	Specify private/open to public etc .....
Canteen	☐	Specify work/college etc .....
Catering business	☐	Specify caterer's name .....
Hotel etc (eating place residential)	☐	Specify hotel/guest house etc .....
Restaurant etc (non-residential)	☐	Specify restaurant/café/pub/club etc .....
Mobile retailer	☐	Specify market trader/van etc .....
Shop/retailer	☐	Specify butcher/baker etc .....
Armed services camp	☐	Specify army/navy/air etc .....
School	☐	Specify nursery/junior etc .....
Hospital	☐	Specify type .....
Residential institution	☐	Specify nursing/residential home .....
Other	☐	Provide details .....

Name and address of place: .....

..... **Postcode (if known)** ☐☐☐☐ ☐☐☐

Was the outbreak the result of a single point exposure? (e.g., wedding, barbeque, scout camp etc)

Yes ☐ **No** ☐ **If YES:** **Date of exposure** ☐☐-☐☐-☐☐

Nature of exposure: .....

The date of onset:

First known ☐☐-☐☐-☐☐ **Last known** ☐☐-☐☐-☐☐

Numbers of people involved: (Please provide your best estimate but if necessary, enter N/K)

Total ill, whether positive or not _____
Total ill, who were also positive _____
Total at risk _____
Total admitted to hospital (Enter N/A if already in hospital) _____
Total number known to have died _____

Was a specific food or water vehicle suspected? **Yes** ☐ **No** ☐

If yes:

Suspect vehicle	**What was the evidence for this suspicion?** (Please tick as many as apply)			
	Microbiological	**Cohort study**	**Case-control study**	**Descriptive/other**
If Descriptive/other, please specify ……				

Foodborne outbreaks – Faults thought to have contributed to outbreak: (Tick as many as apply)

Infected food handler	☐	Give details .....
Inadequate heat treatment	☐	Give details .....
Cross contamination	☐	Give details .....
Storage too long/too warm	☐	Give details .....
Other	☐	Give details .....
None	☐	

Rating of food premises A-F by local Environmental Health Department: ☐☐
Date of last inspection of food premises, prior to outbreak: ☐☐-☐☐-☐☐

All other outbreaks - Faults thought to have contributed to outbreak: (Tick as many as apply)

Poor personal hygiene	☐	Give details .....
Poor handwashing facilities	☐	Give details .....
Other	☐	Give details .....
None	☐	

Thank you for taking the time to complete this form.

ObSurvForm\2003form

7.2 Guides for Leisure Industry Manager (LIM) Management, Staff, and the Public

7.2.1 LIM: General

NOROVIRUS – GENERAL GUIDANCE FOR MANAGERS

Contents **Page**

1. What is norovirus?

1.1 Outbreaks of norovirus (NV) infection have increased substantially in recent years. Most outbreaks occur in closed or semi-closed communities, especially hospitals, nursing homes and leisure industry settings such as hotels, holiday and caravan camps, and coach parties. NV was previously called Small Round Structured Virus (SRSV) or Norwalk-like virus (NLV) and causes what many people still call 'Winter Vomiting Disease' although it can occur at any time of year.

1.2 NV is highly infectious. It has an incubation period of between 10 and 50 hours (usually 24 – 48 hours). Transmission is usually from person to person by the faecal oral route, although it may also occur from aerosols or environmental contamination, especially following faecal accidents or projectile vomiting. Infected food handlers pose a particular risk, and some foods, especially bivalve molluscs, and water may be contaminated before entering the kitchen. Infectivity lasts for at least 48 hours after resolution of symptoms.

1.3 The most prominent symptom is vomiting, often projectile, though nausea, diarrhoea, headache, fever and muscle aches also occur. The illness is generally mild and short lived, (12-72 hours) though people with pre-existing chronic medical conditions may develop more serious symptoms. Treatment in most cases requires an increased consumption of fluids but some people may wish to seek medical advice

1.4 In some instances you may have to consider isolation of cases in order to bring the outbreak under control. Anyone with symptoms should be encouraged to stay confined in their rooms until they are well. This will usually be 24 hours after the symptoms stop.

1.5 Infection occurs by the following routes

- **Inhalation**

NV may be spread from the vomit of a sick person. When sudden projectile vomiting occurs, a fine mist of virus particles passes into the air, which can be inhaled by people in the immediate vicinity. A similar fine mist of virus particles can be generated if items of clothing soiled with vomit or faces are hand rinsed and this practice should be avoided.

- **Hand to Mouth Contact**

Surfaces may be contaminated directly by vomit or by the fine mist of virus particles produced during projectile vomiting. Similar spread can occur from diarrhoea although the main risk here is via the toilet areas. Infection occurs when a person touches a contaminated surface, tap, toilet flush handle etc then has hand to mouth contact without first washing their hands.

- **Contaminated Food and Utensils**

Food and utensils (e.g. place settings) in the vicinity of a vomiting incident and food or utensils, which have been handled by infected staff that have not washed their hands, can be a source of spread of the virus.

- **Direct Person to Person**

Less common – usually requires intimate contact.

2. Preventing an Outbreak

2.1 While it is not possible to prevent an outbreak occurring on your premises under all circumstances, the following precautions will help to reduce the likelihood of an outbreak becoming established:

- Vigilant monitoring of guests' complaints.

- Vigilant monitoring of persons ill on coaches trips, either directly on the coach or elsewhere – member of staff should enquire of coach drivers following every trip.

- Vigilant monitoring of vomiting and diarrhoea incidents on the premises – staff and housekeeper to report all incidents including soiling of bedrooms.

- Early identification of the signs of an outbreak.

- Staff training and awareness of their role (see enclosed 'staff guide' for issue to staff).

- Staff training regarding the importance of not reporting for work if suffering from sickness or diarrhoea (until 48 hours after symptoms have cleared). NB applies to **all** staff, not just food handlers (see 'staff guide').

- Thorough routine cleaning procedures for hand contact surfaces such as taps, toilet handles etc – (see 'cleaning guide').

3. Being Prepared for an Outbreak

3.1 Equipment, staffing and resources identified for the control of an outbreak must be accessible at all times.

- **Staff Training/Awareness**

Responsible staff members must be clearly defined and an outbreak co-ordinator identified.

It is worth identifying a Clean-Up Team in advance of any possible outbreak and to provide them with training by issuing them with a copy of the Cleaning section of this guide and by going over it with them.

- **Cleaning Equipment**

The Clean-Up Team must be provided with sufficient equipment for their own safety and to ensure that cleaning is effective – see equipment section of the cleaning part of this document.

- **Coaches**

Coach drivers must be aware of their role and the necessary equipment (including sick bags) for dealing with incidents must always be available on coaches (see Coaches and Third Parties Premises Guide).

- **Medical Care**

It is recommended that contact be made with the local doctors. This will mean that in the event of an outbreak, clinical advice and assistance for staff and guests will be readily available.

4. Identifying an Outbreak

4.1 In order to control the spread of NV it is essential that outbreaks be identified as soon as possible.

As it is normal for a small percentage of guests to have gastro-intestinal problems for other reasons, the difficulty lies in detecting levels of illness above this normal 'background' level.

4.2 Key indicators of a viral outbreak are:

- Sudden onset of vomiting or diarrhoea – the victim will often not have sufficient warning to reach a toilet.

- A rapidly rising attack rate.

4.3 If you suspect you may have an outbreak of vomiting and diarrhoea on your premises, phone your local Environmental Health Department immediately.

As the early signs of a viral outbreak can be very similar to a food poisoning outbreak, the EHO may wish to check for any possible link to food or water.

5. Controlling an Outbreak

5.1 The Manager's Role

If you have an outbreak of vomiting and diarrhoea on your premises then tight control at an early stage is essential to prevent further spread within your premises and to other premises. Spread may be either from person-to-person or via contaminated objects. As the manager, you have a key role in controlling the outbreak. You must:

- Identify the possibility of an outbreak (see **4. Identifying an Outbreak** above) and report it to Environmental Health or the NHS Board at the earliest opportunity (Form 1a). *****
- Co-operate with EH and NHS Board in implementing infection control measures.
- Ensure that a person or persons are nominated (i.e. yourself and/or others) to:
    - maintain a record of resident cases (Form 1 Appendix). *****
    - maintain a record of staff cases (Form 1 Appendix). *****
    - liaise with EH and NHS Board investigation.
    - implement control measures.
- Ensure that ill guests and staff have access to medical care where necessary.
- Provide advice to ill residents. *****
- Provide advice to ill staff. *****
- Provide advice and training to staff re their role in controlling the outbreak. *****
- Provide advice and training to Clean-Up Team (see **5.5 Cleaning** section).
- Identify person/s to service affected rooms – where possible only these staff should enter the rooms of affected guests or staff.
- Ensure coach drivers are aware of their role. *****
- Vigilantly monitor signs of illness among staff including Clean-Up Team.
- Isolate infectious guests and staff – where possible confine to room and bring meals to them.
- Consider serving only hot plated food during outbreaks and stopping buffet meals.
- Encourage guests to wash their hands before eating (handing out individually wrapped hand wash wipes for guests to clean their hands before meals has proven successful in controlling spread).
- Where buffets are unavoidable, in order to reduce the possibility of accidental food contamination, have food served by staff rather than self service.
- If anyone vomits, any uncovered food or drink in the area must be discarded since there is a risk that it has been contaminated with the virus.
- Following all vomiting incidents, all surfaces must be thoroughly cleaned as per the **5.5 Cleaning** section of this guide, and the area

aired for one hour. Where possible, evacuate the area during this period.

- Ensure all surfaces in toilets are cleaned hourly and after any incident, and all surfaces wiped with bleach solution.
- Where persons associated with an outbreak of illness are transferring to other accommodation, the management of the intended destination must be advised of the outbreak situation.
- Ensure staff cases do not return to work until 48 hours after their last symptoms.
- In an outbreak, all coaches/drivers and other locations, which might be visited by guests, should be advised.
- Transporting home – ill guests must not be allowed on coaches. If they are unable to remain in the hotel until well, they should be transported by car/taxi.
- If an air conditioning facility is available this should be isolated and switched off in affected areas - professional advice should be sought on decontamination of the system before it is restarted.
- If the outbreak is not controlled (i.e. the daily number of new cases is steady or rising) then:
    - potential new guests should be advised of the likely risk prior to arriving.
    - consider ceasing intake of new guests until all guests displaying symptoms have departed and affected staff are excluded from work.
    - consider withdrawal from use of certain bedrooms and/or communal areas.
    - consider full closure to provide an opportunity to thoroughly clean and disinfect the premises.

**** Forms and guides are provided within this pack.***

5.2 Dealing with Guests

Guests in residence during an outbreak should be advised of the situation stressing that this is a common condition in the UK, and encouraging those who feel unwell to stay in their rooms. Guests who have not arrived should be advised of the situation where the illness has not been controlled (i.e. the daily number of new cases is steady or rising).

Your responsibilities to **ill residents** are:

- To ensure where necessary that they have access to medical care particularly if they are unable to keep essential medication down (best if they do not visit surgery but doctor visits in their room).
- To ensure that they are provided with information as to their illness by giving them a copy of the **Guide for Guests and Holidaymakers** provided with this pack.

- To ensure that they are aware of their responsibilities towards other residents re the spread of their illness (detailed in **Guide for Guests and Holidaymakers**).
- To ensure where possible that infected persons are isolated within their accommodation for the duration of their illness and that meals are provided therein.
- To ensure they have free access to fresh drinking water (persons suffering from sickness and/or diarrhoea must replace their fluids to avoid dehydration).
- To ensure they have clean towels daily and adequate supplies of toilet paper and soap.
- To ensure they are kept up to date regarding the outbreak.
- To provide a receptacle for being sick in.
- To ensure that ill residents and residents still recovering are kept away from incoming residents, e.g., by having separate check out and check in areas or different times to check in and out.
- To discourage them from leaving their hotel room until 24 hours after recovery.
- To ensure that ill residents do not travel on transfer coaches. If they require transport to another location this should be by car and if they feel sick they must notify the driver so the car can stop. There will be some risk to the driver unless he has also recently had the illness

Your responsibilities to **well residents** are:

- To prevent spread of illness to them.
- To ensure that they have information as to the nature of the illness affecting your premises by giving them a copy of the **Guide for Guests and Holidaymakers** provided with this pack.
- To control the spread of infection from ill residents and staff by implementing in full the control measures detailed in this pack.
- Provide regular updates e.g. via the hotel notice board.

NB – Residents who appear well may actually be infected but have not yet developed symptoms

5.3 Dealing with Staff

It is essential that all staff including management are made aware of the importance of staying off work if they are suffering from vomiting or diarrhoea. Staff, who do not stay in the hotel must remain at home if they are suffering from vomiting and diarrhoea for 48 hours after last symptoms. Also, those in a household with vomiting and diarrhoea may have become exposed to the virus. While their exclusion from work would exceed conventional public health guidance LIMs may wish to consider excluding such staff in the interests of minimising the risk of spread of infection.

Your responsibilities to **ill staff** staying on the premises are:

- Ensure where necessary that they have access to medical care particularly if they are unable to keep essential medication down (best if they do not visit surgery but doctor visits in their room).
- To ensure that they are provided with information as to their illness by giving them a copy of the **Guide for Staff** provided with this pack.
- To ensure that staff are taken off duty until 48 hours after their symptoms have cleared.
- To ensure they have clean towels daily and an adequate supply of toilet paper and soap
- Ensure they have free access to fresh drinking water (persons suffering from sickness and/or diarrhoea must replace their fluids to avoid dehydration).
- To ensure where possible that infected staff are isolated within their accommodation quarters until 48 hours after their symptoms have cleared and that meals are provided therein.
- Wherever possible staff should have use of private toilet facilities. If not, these facilities should be cleaned as per shared toilet facilities.
- To provide a receptacle for being sick in.
- To prevent unauthorised visitors.

Your responsibilities to **well staff** are:

- To ensure that they have information as to the nature of the illness affecting your premises by giving them a copy of the **Guide for Staff** provided with this pack.
- To control the spread of infection from ill residents and staff by implementing in full the control measures detailed in this guide.
- To ensure that all staff who would be involved with an outbreak, either directly as part of a Clean-Up Team, or indirectly are aware of and have been trained in the guidelines for the management of an outbreak and have undertaken suitable training - where appropriate, staff should be supervised.
- To ensure staff wash their hands on entry to food preparation areas.

NB – Staff that appear well may actually be infected but have not yet developed symptoms

5.4 Dealing with Transport

If a guest vomits on a coach every effort must be made to take the coach out of circulation for thorough cleaning. If this is not possible the area must be thoroughly cleaned and aired before new passengers board. For details of cleaning coaches see the **Cleaning Guide**.

5.5 Cleaning

Thorough cleaning and disinfection of rooms of infected persons and communal facilities must be undertaken in accordance with the **Cleaning Guide** included in this document. After cleaning, ensure that rooms are well ventilated.

In addition to routine cleaning, it is recommended that a specialist Clean-Up Team be appointed which can deal with gross contamination in the event of an outbreak of illness.

This team may comprise existing staff members and must be available at short notice to clean up occurrences of gross contamination and vomit in accommodation and communal facilities.

The team must routinely clean public areas as necessary and shared toilet facilities must be cleaned at least hourly during an outbreak.

Arrangements for the Clean-Up Team must aim to limit the number of staff having contact with infected cases.

A senior member of staff should train the team by providing each of them with a copy of the **Cleaning Guide** included in this document and by explaining the implications of it to them.

For details of cleaning methods see the **Cleaning Guide**.

6. Roles of Agencies

6.1 Environmental Health

The local Environmental Health Officer, in conjunction with the area NHS Board, has a responsibility for the control of communicable disease.

This is achieved in a number of ways:

- Investigating the origin and cause of the illness.
- Advice on controlling the outbreak.
- Taking samples for analysis.
- Carrying out an inspection of the premises.
- Advising on good hygiene practices.
- Considering the potential for formal action in the event of food being identified as the source.

- Preparing ‘after the event’ reports for discussion and implementation of the lessons learned.

- Advising on preventive measures.

6.2 NHS Boards

The role of the local NHS Board, through the Consultant in Public Health Medicine and Infection Control Nurse(s), is to:

- Co-ordinate responses in large outbreaks as necessary.

- Advise on infection control measures.

- Assist the local authority EHO.

- Consider and document the epidemiology of cases.

- Ensure stool samples are submitted as soon as possible and to make the necessary arrangements for their analysis.

- Provide for medical care of patients and those displaying symptoms.

- CsPHM can also exclude food handlers from work and are available to assist the EHO in assessing the potential for formal action in the event of food being identified as a source.

For further advice please contact your local Environmental Health Service or NHS Board

The following guides are provided for assistance:

- Norovirus – Cleaning Guide.

- Norovirus – Guide for Staff.

- Norovirus – Guide for Guests and Holidaymakers.

- Norovirus – Guide for Relatives and Friends.

- Norovirus – Guide for Coaches and Third Party Premises.

7.2.2 LIM: Cleaning

NOROVIRUS – CLEANING GUIDE

Contents **Page**

1. Reasons for Cleaning

Norovirus (NV) can be spread by contamination of the environment. It can be spread via contaminated surfaces whether visibly contaminated or not. For this reason it is particularly important that any vomit or diarrhoea is promptly cleaned up and that all hand contact surfaces are kept clean. The virus is hardy, and has been reported to survive for up to 12 days in carpets if no attempt is made to remove it.

2. Staff Safety

All staff cleaning a contaminated environment must use waterproof protective gloves and plastic aprons. All staff involved must receive adequate training and a copy of this document.

3. Equipment

The following equipment must be kept in a lockable cupboard and used solely for the purposes of the Clean-Up Team:

- Waterproof protective gloves.
- Disposable aprons.
- Disposable foot covers.
- Dustbin bags in a distinctive colour.
- Soiled linen bags.
- Sick bags.
- Disinfectant agent – see below for types.
- Multi-purpose detergent cleaner.
- Wet/dry vacuum cleaner.
- Absorbent granules.
- Disposable cloths.
- Mop, bucket, dustpan and plastic scraper.

4. Cleaning and Disinfection Agents

- **Detergents**

Suitable detergents should be selected to remove dirt and debris from the item or surface being cleaned prior to disinfection. Your supplier will advise.

- **Disinfectants**

For disinfection of NV, an agent delivering at least 1000 parts per million (ppm) or 0.1% of available chlorine is required. Examples of such agents are included below but you should contact your supplier

for details of products that will be suitable for your premises and the surfaces/furnishings therein. After disinfection, surfaces should be rinsed and left to air dry.

Milton Sterilising Solution (MSS) (which is a 2% solution for retail sale) requires a 1:20 dilution (i.e., 1 measure of MSS plus 19 measures of water) to achieve a final strength of 0.1%. The concentration of supermarket domestic bleach solutions is variable and the dilution recommended by the manufacturer for disinfection of surfaces should be used.

- **Fogging agents**

While fogging with liquid disinfectants has been advocated by some bodies in the leisure industry, and anecdotes from some EHOs suggest that it may enhance the effectiveness of conventional cleaning and disinfection, there is currently no published evidence proving that it works any better than effective conventional cleaning and disinfection alone. Fogging with liquid disinfectants is certainly not an alternative to effective conventional cleaning and disinfection, and has potential disadvantages. Should further information become available from properly designed trials, this guidance may be revised.

5. Facilities

The Clean-Up Team must have access to the following facilities:

- A cleaning sink with hot and cold water outwith a food preparation area, if possible, for their exclusive use.
- Refuse storage receptacles.
- Changing and washing facilities, if possible, for their exclusive use, supplied with hot and cold water, liquid soap, and paper towels.

6. Cleaning Methods

6.1 Contaminated Areas

General Cleaning Method

- Put on disposable apron, gloves, foot covers.
- Gross contamination of vomit and/or diarrhoea should be removed by:
    - treatment with absorbent granules, which are then removed for proper disposal.
    - using paper towels to soak up excess liquid then using disposable cloths.
- Place contaminated material directly into a waste bag.
- Wash immediate area with hot water and detergent using disposable cloths or using a wet vacuum containing a detergent solution depending on surface – see below.
- Apply disinfectant directly to the contaminated area and its surrounds (at least 3 metres in all directions) after cleaning.
- Dispose of aprons, foot covers, gloves and cloths into the waste bag.
- Clean and disinfect non-disposable equipment after use.
- Wash hands thoroughly afterwards.
- Cordon off and thoroughly air until dry.

Table Place Settings

All table place settings i.e. cutlery, crockery, salt and pepper sets, tablecloths etc., within at least 3 metres in all directions of a vomiting incident must be disinfected, for example by the use of a dishwasher cycle at a temperature of at least 70C. Table linen should be handled as per soiled bed linen.

Hard Surfaces

All hard surfaces in the vicinity of the incident must be wiped down with a bleach solution (see **4. Cleaning and Disinfection Agents** above) e.g. wash hand basins, work surfaces, washable floors, taps, toilet and bath rails, telephones and banisters, furniture, waste bins, door and toilet flush handles, window frames and bathroom fittings.
(This solution will bleach fabrics so should not be used on soft furnishings or carpets).

Ensure separate disposable cloths are used for ‘dirty’ areas such as toilets.

Soft Furnishings

Initial cleaning should be followed by steam cleaning if the items are heat tolerant. If this is not possible, washing with a detergent solution should be considered.

Carpets

The area to be cleaned should extend at least 3m around the contaminated area. Carpets should be steam cleaned using a steam cleaner which reaches a minimum of 70C, unless the floor covering is heat sensitive and fabric is bonded to the backing material with glue. If this is the case, clean with detergent and water solution, and thoroughly air the area until dry before allowing people back in.

Bed Linen/Laundry

Contaminated bed linen/laundry should be placed in separate laundry bags and washed separately using a cold pre-wash sluice cycle (if available) followed by a full wash cycle at a minimum temperature of 60C.

Where available, water soluble bags should be used for gross contamination. If an external laundry service is used, inform the operators of the likelihood of contaminated bedding, etc and identify any special requirements that they may have for the receipt of such articles.

Where there is gross contamination of laundry and disposal is being considered, waste disposal advice is available from your local Environmental Health Department.

Make sure all laundry items from affected rooms are placed separately in water soluble bags before transfer to the laundry.

Fabrics which can tolerate it should be washed at a temperature of at least 70C which should be attained for at least three minutes: other fabrics may be disinfected by the addition of sodium hypochlorite to the penultimate rinse. This should be of at least five minutes' duration, at a concentration of at least 150ppm of chlorine.

Air-borne Contamination

Fogging with disinfectant has been applied in the control of some airborne infectious disease. However, specific evidence for efficacy in the control of norovirus infection is required before this method can be advocated.

6.2 Shared Toilet Facilities

- Clean and disinfect contaminated areas/objects as previously outlined in **6. Cleaning Methods – Contaminated Areas**

- During an outbreak, check and clean shared toilet facilities at least hourly and after any incident of soiling or contamination.

- All hard surfaces must be cleaned and disinfected ensuring that separate disposable cloths are used for 'dirty' areas such as toilet bowls.

6.3 Rooms Occupied by Ill Guests

- **Regard all rooms occupied by ill guests as contaminated areas.**

- Clean and disinfect as per **6.1 Cleaning Methods – Contaminated Areas**.

- Rooms, which have accommodated ill guests, should be thoroughly cleaned when the guests depart. These rooms should be cleaned before other rooms so that they remain empty of guests for the longest possible time.

- Remove bedding (including duvets and pillows) and towels for laundering – **see 6.1 Contaminated Areas – Bed Linen/Laundry**.

- All tea making facilities and provisions, cups, spoons, glasses, teapots and other crockery should be placed in a plastic box with a lid. They should be washed and disinfected using a dishwasher cycle at a temperature of at least 70C. This procedure should also be followed when removing crockery etc after the guest has had room service. All items should be washed separately from other hotel crockery etc.

  Even in the absence of NV infection, the practice of washing crockery in wash-hand basins in bedrooms is unacceptable.

  After room service, when possible, the guest should collect the crockery, cutlery, glassware etc and pass them through the doorway. Staff should not enter the room unless this is unavoidable.

- Dispose of teabags, coffee sachets, biscuits and other consumables.

- Replenish drinking water supplies where needed.

- Dispose of all toilet rolls and other toiletries and clean the holders.
- When cleaning is complete replace towels and linen as necessary.
- Where possible ventilate the room.

6.4 Swimming Pools

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

- Clear the pool of bathers immediately.
- Ensure that disinfectant levels are maintained at the top of the range.
- Vacuum or sweep pool to remove contamination - disinfect the vacuum cleaner after use.
- Use a coagulant and filter the water for six turnover cycles.
- Backwash the filter throughout this operation.
- Subject to clarity of water and satisfactory pH and chlorine levels the pool can then be re-opened.
- Records should be maintained of the incident and all subsequent actions taken.
- Instructions for cleaning and disinfection (i.e. instructions as detailed in **6. Cleaning Methods – Contaminated Areas**) should be followed for pool surrounds and communal areas.
- The areas to be cleaned and cordoned off should extend to at least 3 metres around the contaminated area.

6.5 Coach Operators

Transport operators must be made aware of the occurrence of illness and have the knowledge and facilities available to clean their vehicles as described within this document.

The responsibility for cleaning transport must be defined prior to any outbreak, as there may be an overlap between the transport operator and the accommodation management.

The driver should deal with gross contamination in the coach as soon as practicable. This means the driver must be equipped with appropriate personal protective kit and cleaning materials. Further cleaning and disinfection will be required on arrival and the Clean Up Team may carry this out.

Equipment for Driver

The following equipment must be kept on the bus at all times:

- Adequate supply of water for cleaning.
- Rubber gloves.
- Disposable aprons.
- Disposable foot covers.
- Dustbin bags in a distinctive colour.
- Sick bags.
- Disinfectant.
- Multi-purpose detergent cleaner.
- Absorbent granules.
- Disposable cloths.
- Mop, bucket, dustpan and plastic scraper.

Immediate Action

Incidents of vomiting and diarrhoea should be cleaned up as soon as possible

Passengers should be taken off the bus if it is practicable and safe to do so.

- Put on disposable apron, foot covers and gloves.
- Gross contamination of vomit and/or diarrhoea should be removed by:
    - treatment with absorbent granules, which are then removed for proper disposal.
    - using paper towels to soak up excess liquid then using disposable cloths.
- Place contaminated material directly into a waste bag.
- Wash immediate area with hot water and detergent using disposable cloths.
- After cleaning, apply disinfectant agent directly to the contaminated area and its surrounds, at least 3 metres in all directions.
- Dispose of aprons, foot covers, gloves and cloths into the waste bag
- Wash hands thoroughly afterwards.

- Cordon off and thoroughly air the area for at least one hour afterwards if practicable to do so.
- Isolate air conditioning system and do not reintroduce until the coach has been cleaned following return to the base/destination.

On return to base/destination

- The transport operator should notify the person in charge of the occurrence of illness on board his/her vehicle and the action taken.
- The transport operator or Clean Up Team should then carry out a full clean.
- Remove any contaminated material for proper disposal.
- Dispose of consumables e.g. paper cups etc.
- Remove seat head rest covers, cushions, etc and launder at 70C.
- Clean and disinfect hard and soft furnishings with the appropriate cleaner/disinfectant include toilets, washbasins, door and toilet flush handles, floors and windows.
- Steam clean contaminated cloth seats – if heat tolerant.
- Clean accessible carpeted areas with a wet and dry vacuum cleaner containing detergent and warm water solution.
- The vehicle should be well vented after cleaning and disinfection is complete.
- Clean and disinfect non-disposable equipment.
- Replenish supplies.

For further advice please contact you local Environmental Health Service or local NHS Board

7.2.3 Staff

NOROVIRUS – GUIDE FOR STAFF

What is norovirus?

Norovirus (NV) is a frequent cause of diarrhoea and vomiting. The infection is usually mild, symptoms lasting 12-72 hours.

It can cause:

- Diarrhoea – the frequent passage of loose, fluid, unformed bowel movements.
- Nausea and vomiting, which may be projectile.
- Muscle aches.
- Headache.
- Fever.

How is norovirus spread?

- Aerosol spread if an ill person vomits near other people.
- By failure to wash hands after using the toilet and before eating food.
- By eating food contaminated with the virus.

What do I do if a guest shows symptoms?

- Report guests with such symptoms to your manager.
- They will arrange for the ill guest to be isolated where possible.
- They will also arrange the Clean Up Team to deal with any contaminated areas.
- Do not attempt to do this yourself unless you have been trained to do so.
- Be particular about personal hygiene during outbreaks of diarrhoea and vomiting. **Always wash your hands after using the toilet, and before handling or eating food.**

What do I do if I develop symptoms?

- If you develop any symptoms while at work report it to your manager. You should not work while you are unwell.

- If you have had diarrhoea or vomiting you should remain off duty until 48 hours after the last episode of diarrhoea or vomiting.

- If you become unwell while at home, stay at home and phone in ‘sick’. Do not come into work.

What do I do if someone in my house has diarrhoea and vomiting?

- You are a close contact of an infectious person and could develop symptoms yourself.

- You should phone your manager and report this and he/she may ask you to stay at home.

- Your manager should keep in contact with you by phone until the ill person in your family is well and for 48 hours afterwards.

- If you have not become unwell during this period, you can return to work.

7.2.4. Guests and Holidaymakers

NOROVIRUS – GUIDE FOR GUESTS AND HOLIDAYMAKERS

What is norovirus?

Norovirus (NV) is a frequent cause of vomiting and diarrhoea in the community and is most common during the winter. It is sometimes called 'winter vomiting disease'.

Why is it a problem?

NV causes symptoms, which can last 12-72 hours, and the person will have vomiting and/or diarrhoea. Some people may also have a fever, headache and muscle aches. The illness is usually mild in nature and gets better without antibiotics. NV does however spread very easily from person to person, particularly if someone becomes unwell and vomits in a confined space with a large number of other persons in close proximity. Thus, it is possible for infection to spread readily on bus tours and visitor attractions when large crowds of people are nearby.

Why is this important to me?

While you are on holiday the management want to promote a healthy and pleasant environment for all visitors to enjoy. Simple precautions can reduce the chance of you and your companions becoming unwell, and help to ensure that you enjoy your holiday.

What should I do if I become unwell?

If you are out on a trip when you become unwell, you should inform your guide who will arrange transport to take you back to your hotel.

If you are in the hotel when you become unwell, please return to your room and contact reception by telephone from your room, if available. Someone will visit you and make sure that you have everything you need and are properly looked after. If you require medical attention, staff can arrange for a local doctor to visit you.

While you are unwell, it is important that you pay particular attention to washing your hands after being sick or visiting the toilet. If you vomit in a communal toilet, please inform a member of staff immediately so that the toilet can be cleaned for other users.

What should I expect if I become unwell?

- A member of staff will contact you to collect details of your illness.
- They will make sure that you are provided with food and drink in your room and the toilet you use is kept clean.
- They will advise you not to leave your room until your symptoms have ceased for 24 hours.
- An Environmental Health Officer or Infection Control Nurse may visit you.
- You may be asked to provide a faecal specimen to be sent to the laboratory.
- If you are still unwell and due to travel home, the tour operator will make special arrangements for you.

7.2.5. Relatives and Friends

NOROVIRUS – GUIDE FOR RELATIVES AND FRIENDS

What is norovirus?

Norovirus (NV) sometimes called Small Round Structured Virus (SRSV), Norwalk-like virus (NLV) or winter vomiting is a frequent cause of diarrhoea and vomiting in the community. It is common all year round, particularly where people are in close proximity including hospitals, hotels and coaches.

Why is it a problem?

NV illness lasts 12-72 hours and the person will have vomiting which, on occasion, is projectile and/or diarrhoea. It may also result in high temperatures, headaches and muscle aches. The illness is usually mild. NV spreads very easily where there is close contact or people are in a confined environment. Large numbers of people can be involved. To stop the illness spreading, it is important to restrict visiting and for you to take certain control measures.

How does it affect my relative/friend?

If unwell, they will be unable to join the rest of the group for meals, and other communal activities including coach trips. They will be advised to remain in their room, although their symptoms will mean that they may wish to remain in their room in any event.

Will they need treatment?

The main treatment is to drink plenty fluids. However, if unclear, or if they are receiving regular medical supervision, ask for a GP to visit.

Your relative/friend may be asked for a stool sample to be sent to the Laboratory for testing and for some personal information including a history of where they have been/what they have eaten.

They may be visited by an Environmental Health Officer or Infection Control Nurse who will investigate this illness if others are affected.

Once the illness is over, no further action is required.

Can I visit?

You should avoid visiting the room of your relative/friend. Where you need to visit, keep these visits to a minimum and take the steps detailed below.

What precautions do I need to take?

If you are feeling unwell, contact management/reception and do not participate in communal activities.

You should:

- Always maintain a high level of personal hygiene – wash your hands thoroughly after using the toilet and before eating and drinking.

- You should avoid visiting the ill person's bedroom and keep contact to a minimum.

- Avoid sitting on the ill persons bed or eating/drinking in the room.

- Do not touch soiled linen/clothing or attempt to clean up vomit/faeces. Contact the management /reception.

For further advice contact your manager/reception, or the Council's Environmental Health Service or NHS Board

7.2.6 Coaches and Third Party Premises

NOROVIRUS – GUIDE FOR COACHES AND THIRD PARTY PREMISES

What is norovirus?

Norovirus (NV) sometimes called Small Round Structured Virus (SRSV), Norwalk-like virus (NLV) or winter vomiting is a frequent cause of diarrhoea and vomiting in the community. It is common all year round, particularly where people are in close proximity e.g., hospitals, hotels and coaches.

Why is it a problem?

NV lasts 12-72 hours and the person will have vomiting, which, on occasion, is projectile and/or diarrhoea. It may also result in fever, headaches and aching limbs. The illness is usually mild. NV spreads very easily where there is close contact or people are in a confined environment including coaches. Large numbers of people can be involved. To stop the illness spreading, it is important to be aware of the virus and to take control measures to minimise its spread to guests and to staff.

Controls

Any person identified with symptoms will be unable to join other guests for meals and other communal activities including coach trips. However, there may be instances where a person becomes unwell on a coach. There are steps that you can take to minimise any spread:

- Discuss your company policy with your manager at the start of the season and do not wait until an outbreak occurs.
- Stop the coach as soon as it is practical to do so.
- Consult and implement your company's policy for dealing with customers that become unwell. This may include, where possible, isolating the ill person on the coach, making alternative arrangements for transporting the ill person or advising them to go to their room.
- If safe to do so, ask others to leave the coach or area until the faeces/vomit has been cleaned.
- If you have to undertake the cleaning, use the materials provided by your company or hotel chain, follow their cleaning procedures and wear the protective clothing. This will provide surface cleaning and disinfection.
- Bag soiled material and dispose.
- Wash your hands thoroughly after cleaning up.

- Advise the destinations of the incident.

- Ventilate the area well. If on a coach, do not re-circulate the air.

- If travelling onwards, advise others that if they feel unwell to speak to you. This will allow you to deal with any further incidents or to advise management in other premises (e.g. lunch stops etc).

Will they need treatment?

Ill people should be advised to drink plenty fluids. If the illness is prolonged or if they are on regular treatment requiring medical supervision, they may wish to contact a GP.

What do you need to do?

You need to be aware of the ease of spread of the norovirus and be able to deal with incidents. The cleaning procedures advocated should be used in all cases of diarrhoea and vomiting, as they will assist in preventing further spread.

In addition, if you are experiencing symptoms please advise your own line manager of this.

For further advice contact your manager, or the Council's Environmental Health Service or NHS Board

Appendix 1: MODEL OUTBREAK REPORT

Lowland NHS Board

Lowland Council Environmental Health Department

Investigation Into Outbreak of NV Infection at Shoreside Holiday Park

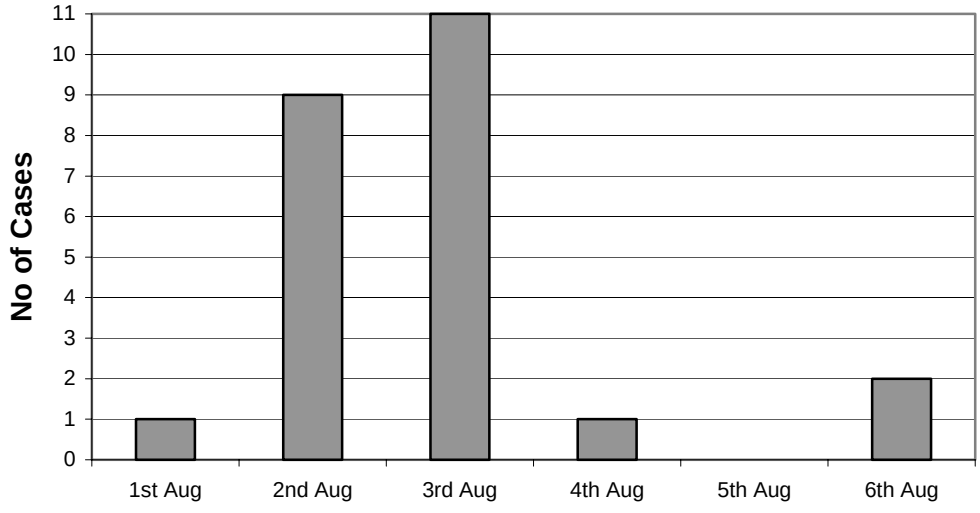
1.0 Introduction

1.1 On Saturday 3 August 2002, a local GP reported a possible outbreak of vomiting and diarrhoea in Shoreside Holiday Park to the Director of Public Health (DPH) on-call. The GP had seen a patient with diarrhoea and vomiting who had been staying at the park. The patient had reported that there were at least 20-30 cases of D&V in park visitors. The DPH was also contacted by a visitor from the Western Isles who with his family had visited the holiday park for a day on 1 August and later all 7 members of his family had suffered D&V symptoms.

2.0 Investigation of the outbreak

2.1 The DPH visited the holiday park and spoke with the owners. He advised the setting up of an illness log to be kept by the owners, along with initiating a number of control measures. The epidemic curve is shown in Figure 1.

FIGURE 1: Outbreak of Gastroenteritis Illness at Shoreside Holiday Park (August 2002)



2.2 A Senior Environmental Health Officer interviewed several known cases. It was established that:

- The illness duration was short (<48 hours).
- Symptoms were those of diarrhoea and vomiting.
- Most cases had never eaten in the site restaurant but had brought and prepared their own food.
- The park water supply was reported to have had a routine bacteriological test carried out on 29th July, which was reported to be normal.

2.3 The working hypothesis was that this was a viral infection of the NV-type from the outset.

2.4 By Sunday 4 August, 8 cases were reported on the illness log and several stool samples were submitted. In addition to the 12 logged cases, and 7 cases notified to DPH, Environmental Health Officers identified another 5 cases. This brought the final known tally to 24 individuals. Subsequent investigation confirmed that the earliest case was identified by 25 July, with reports of several other cases before DPH notification.

2.5 Holiday park management staff completed daily illness logs. The site management had set up illness log sheets in the public areas. These were meant to effectively inform people of the possibility of infection.

2.6 A joint visit of Infection Control Nurse and Environmental Health Officer took place on 5 August. They confirmed that infection control measures in place were being adhered to. Further questioning of affected individuals failed to indicate any link with the site restaurant. An Outbreak Control Team was not assembled based on the fact that all appropriate measures had already been taken early on following notification.

3.0 Microbiological Results

3.1 Three specimens from visitors were NV positive and confirmed what the clinical picture had previously indicated – two from visitors and one from a staff member on site.

3.2 Water samples from the park were negative for bacteria and for cryptosporidium.

4.0 Control Measures

4.1 Control measures included:

- Staff were advised to pay scrupulous attention to hand hygiene.
- Staff were to be excluded from work if they showed symptoms and only to return 48 hours after recovery.
- Increased cleaning of communal toilets and washing areas to hourly using bleach-based disinfectants was advised.
- Thorough cleaning of static caravans and chalets occupied by any affected individual was advised on their departure or recovery.

4.2 These measures were in place until 9 August when outbreak was declared over.

5.0 Conclusion

5.1 The epidemiological picture pointed to and the microbiological evidence confirmed an NV outbreak ('Winter Vomiting Virus'). Outbreak subsided in about 18 days.

6.0 Recommendation and Lessons Learned

6.1 In view of the explosion in NV outbreaks in various community and hospital settings, consideration needs to be given to provision of public health information leaflets on NV, its prevention and management.

Appendix 2: Bibliography and References

Public Health Medicine (PHM), and Environmental Health Officers (EHOs) will familiarise themselves with the following key documents:

- *Dumfries and Galloway NHS Board Major Outbreak Plan - Update: February 2003.*

- *Food Standards Agency (FSA) Scotland /SEHD. The Investigation and Control of Outbreaks of Foodborne Disease in Scotland (Cairns Smith Report), 2002.*

- *Scottish Executive Health Department (SEHD). Managing Incidents presenting actual or potential risks to the public health: guidance on the roles and responsibilities of Incident and Outbreak Control Teams. January 2003.*

- *Scottish Office Department of Health (SODOH). Scottish Infection Control Manual. Guidance on core standards for the control of infection in hospitals, health care premises, and at the community interface. July 1998.*

- *Society of Chief Officers of Environmental Health in Scotland Guidance Document 'Outbreak Control Viral Gastro-enteritis. Infection Control Procedures for Coaches, Hotels, Exhibition Centres and Seminar Premises'. July 2002.*

Appendix 3: Abbreviations

CPHM	Consultant in Public Health Medicine
DMO	Designated Medical Officer
DPH	Director of Public Health
EHO	Environmental Health Officer
GP	General Practitioner
HPA	Health Protection Agency (formally Public Health Laboratory Service)
HPS	Health Protection Scotland (formally Scottish Centre for Infection and Environmental Health)
ICN	Infection Control Nurse
LA	Local Authority
LIM	Leisure Industry Manager
NHSB	NHS Board
NLV	Norwalk-like virus
NV	Norovirus
PHICN	Public Health Infection Control Nurse
PHLS	Public Health Laboratory Service (now Health Protection Agency)
SRSV	Small Round Structured Virus