

GASTRO PACK FOR HOSPITALS

What is the purpose of this information pack?

This package has been produced to assist hospitals in the event of an outbreak of gastroenteritis and provides information on its early identification, prevention and control.

Who needs to read it and be familiar with it?

All health care workers of your hospital, but in particular infection control professionals and nurse unit managers, should have access to and read the information provided in this pack. This will help to ensure early identification and response to gastroenteritis outbreaks and can mean fewer people (patients and staff) with gastroenteritis in your hospital.

When will you need to use it?

The pack will be of use in the event of a gastroenteritis outbreak in your hospital. NSW Health defines an outbreak as two or more people with sudden onset of vomiting or diarrhoea at the one time in any institution.

Who should I contact?

Gastroenteritis in an institution among people of any age and food borne illness in 2 or more related cases should be notified to your local Public Health Unit (NSW Department of Health. *Notification of Diseases under the Public Health Act 1991, Policy Directive PD2006_014*, available at: <http://www.health.nsw.gov.au/policies/pd/2006/PD2006_014.html>. Notifying the NSW Department of Health of such an outbreak is obligatory for Chief Executive Officers (or their delegates) of hospitals and nursing homes and medical practitioners, and is recommended for hostels. A list of NSW Public Health Units is provided over the page.

How can the Public Health Unit (PHU) help and what is their role?

Your local PHU can assist by providing advice and support in the management and control of an outbreak of gastroenteritis in a hospital. PHU staff can also provide advice on the most likely cause of the outbreak. PHU staff have expertise in managing infectious disease outbreaks.

What is in this pack?

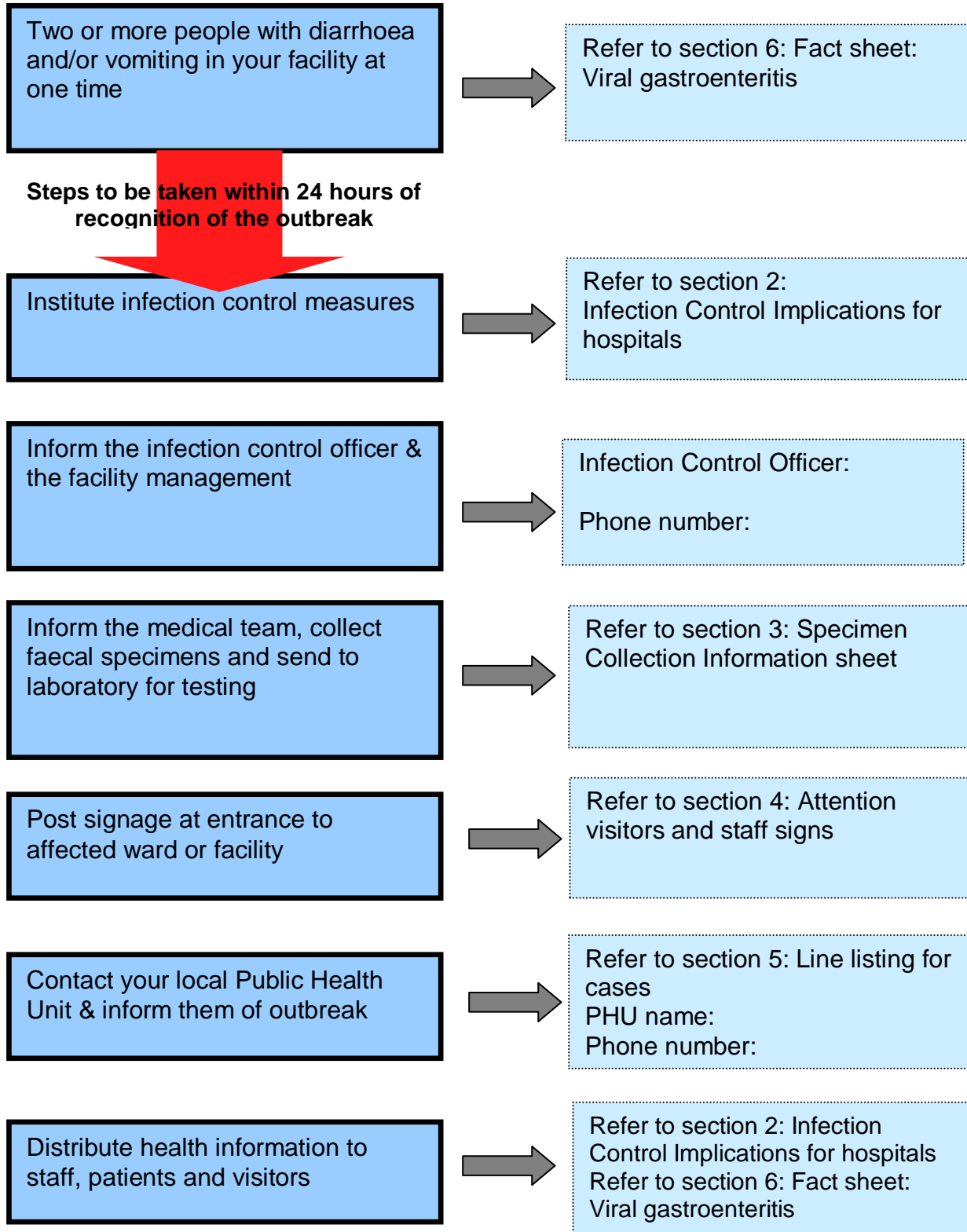
- Section 1. Recognising and managing an outbreak of gastroenteritis on your ward
- Section 2. Viral Gastroenteritis: Infection Control Implications for hospitals
- Section 3. Collection of specimens in a gastroenteritis outbreak
- Section 4. Signage: Staff and visitors posters
- Section 5. Line listing for cases
- Section 6. Viral gastroenteritis fact sheet

Public Health Unit Contacts

NSW Area Health Service	Public Health Units	Contact Phone Number
Greater Southern	Goulburn Office	02 4824 1840
	Albury Office	02 6080 8900
Greater Western	Broken Hill Office	08 8080 1499
	Dubbo Office	02 6841 5569
	Bathurst Office	02 6339 5601
Hunter/New England	Newcastle Office	02 4924 6477
	Tamworth Office	02 6764 8000
North Coast	Port Macquarie Office	02 6588 2750
	Lismore Office	02 6620 7500
Northern Sydney/Central Coast	Hornsby Office	02 9477 9400
	Gosford Office	02 4349 4845
South Eastern Sydney/Illawarra	Randwick Office	02 9382 8333
	Wollongong Office	02 4221 6700
Sydney South West	Camperdown Office	02 9515 9420
Sydney West	Penrith Office	02 4734 2022
	Parramatta Office	02 9840 3603

**NSW HEALTH HOSPITAL GASTRO PACK SECTION 1:
RECOGNISING AND MANAGING AN OUTBREAK OF
GASTROENTERITIS ON YOUR WARD**

Gastro Pack Resources



VIRAL GASTROENTERITIS: INFECTION CONTROL IMPLICATIONS FOR HOSPITALS

Most outbreaks of gastroenteritis in institutions are caused by norovirus, and the following control guidelines apply to viral gastro outbreaks (including *norovirus*, *rotavirus* and *sapovirus*). However, it is also important to consider toxigenic pathogens (*C. perfringens* and *C. difficile*), and bacterial pathogens (*Salmonella* and *Campylobacter*), as possible causes gastroenteritis outbreaks in hospitals.

In the event of a gastroenteritis outbreak there are a number of precautions that will prevent the spread of infection and control the outbreak.

HAND WASHING AND HAND HYGIENE

- Hand washing is the most effective way of controlling gastroenteritis pathogens. Hands must be washed before and after all patient contact. Hands should be washed following contact with the affected patient's immediate environment and following all specimen contact, regardless of whether hands are visibly soiled.
- Hands should always be washed after personal toileting, before preparing or eating food, and after removing gloves or other personal protective equipment (PPE).
- Hands should be washed vigorously with liquid soap and water for a minimum of 15 seconds rubbing all surfaces of the hands and wrists.
- Alcohol based hand solutions can be used if hands are visibly clean
- Nails should be kept short. False fingernails, nail extenders, nail polish and jewellery can restrict adequate cleaning of hands and harbour microorganisms including the virus and are therefore not recommended.
- Refer to the NSW health website for information on hand hygiene.
http://www.health.nsw.gov.au/policies/pd/2010/pdf/PD2010_058.pdf
- Patients must be educated on the importance of hand hygiene and given access to hand hygiene facilities.

STANDARD AND ADDITIONAL (TRANSMISSION-BASED) PRECAUTIONS

- Standard precautions should be used for **ALL** patients.
- Additional precautions (outlined below) should be used for any patient suspected or confirmed to be infected.

CONTACT AND DROPLET PRECAUTIONS

- Contact precautions includes wearing gloves and a plastic apron or impervious gown when having contact with the patient or the patient's environment, especially when attending to patient toileting and hygiene.
- Protective eyewear and mask must be worn when there is the potential of vomit or faecal splashing.
- A mask should also be worn when there is the potential for aerosol dissemination. This may occur when attending a vomiting patient, toileting an affected patient, changing and handling soiled linen or any faecal soiled waste, attending a patient's personal hygiene care, disposing of faeces, or cleaning an affected patients room or environment.

- Toilets should have the lid of the toilet closed before flushing to stop faecal aerosols being generated.
- PPE should be removed before leaving the affected patient's room. Hands should be washed after removing PPE in the room and after leaving the room.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- It is important that staff are competent in the correct wearing and removal of PPE to avoid inadvertently contaminating themselves.
- PPE should be donned before entering the affected isolation area.
- PPE must be removed in a way that does not allow transmission of norovirus to the wearer.
Gloves are likely to be heavily contaminated and should be removed first.
- The steps in removing personal protective equipment are:
 1. Remove gloves by rolling back from the wrist. Do not touch skin.
 2. Wash hands.
 3. Remove goggles/visor/shield.
 4. Remove gown and fold carefully with contaminated side in and place in the appropriate linen or waste bin, depending on whether the gown is cloth or disposable.
 5. Remove mask by touching the tapes only, avoiding contact with the front of the mask, and discard in the waste bin.
 6. Immediately decontaminate hands well using an antimicrobial skin cleanser and water. If not immediately available, use an alcohol hand gel or rub and wash hands as soon as possible.

PATIENT MOVEMENT/SINGLE ROOM OR COHORT

- Affected patients should be nursed in isolation with designated toilet/bathroom facilities, or cohorted with other affected patients. Caution is required when cohorting patients because gastroenteritis may be caused by different infectious agents.
- Avoid transfer of infected patients to unaffected areas to prevent spread of the infection.
- If a non-symptomatic patient in a non-closed ward of a hospital in the midst of a gastroenteritis outbreak is to be transferred from the hospital, a transfer letter should accompany the patient advising the new hospital of the outbreak at the old hospital. The new hospital can then monitor the patient and implement the gastro pack immediately on any developing gastro symptoms without waiting for an additional case to occur.

CLEANING

- PPE, including mask, should be worn by people cleaning areas contaminated with faeces or vomitus.
- Once an outbreak has been identified, the cleaning of the affected area should be increased to twice daily. Particular attention should be given to environmental surfaces frequently touched such as door handles, taps.
- When cleaning toilet and bathroom areas, special attention should be given to cleaning all potentially contaminated areas, including toilet roll dispenser, toilet seats and lid, flushing handle or flushing mechanism, safety handles, shower chair, light switches, regardless of whether they are visibly soiled or not.
- Soiling due to vomiting and diarrhoea should be cleaned immediately with water and neutral detergent. It is then recommended that a clean environmental disinfection of the area be performed, eg freshly prepared bleach solution which provides a concentration of 1000ppm of available chlorine. Note that some hypochlorites are corrosive and may bleach furnishings and fabrics. Contaminated carpets should be cleaned with neutral detergent and hot water, then steam cleaned.
- Those responsible for decontamination and cleaning should not be food handlers.

- Isolation areas should be cleaned using yellow colour coded equipment designated for the affected area.

LINEN

- PPE should be worn when handling used linen from an infected patient.
- Used linen, whether visibly soiled or not, should not be agitated to cause the spread of the virus through aerosols.
- Linen should be bagged and tied at the point of generation.
- Linen soiled with vomitus or faeces should be bagged, transported and stored in leak proof bags.
- The laundering of linen must be consistent with Australian Standard AS/NZS 4146: *Laundry Practice*.

STAFF MOVEMENTS

- Minimise as much as possible the circulation of staff between affected and unaffected areas. Where possible designated staff should care for affected patients.

AFFECTED STAFF

- Staff with gastrointestinal symptoms should leave work immediately and not return to work until 48 hours after their last episode of vomiting or diarrhoea.
- Food handlers should be excluded from food preparation until at least 48 hours after their last episode of vomiting or diarrhoea.
- Recuperating staff may shed the virus for a number of weeks after their symptoms have disappeared, therefore the importance of hand washing and personal hygiene on returning to work should be reinforced.

VISITORS

- Visiting should be minimised and patients informed of the required precautions.
- Children and immunocompromised individuals should be discouraged, where possible, from visiting during an outbreak.
- Visitors should be instructed on the application and removal of PPE and hand washing.

CLOSURE / REOPENING OF A WARD

- Temporary closure of an affected facility or ward may be necessary to allow for adequate cleaning and disinfection after the last affected patient has recovered.
- A closed facility or ward may be reopened 48 hours after the last episode of vomiting and diarrhoea of the last affected patient.

EATING UTENSILS

- Eating utensils, such as crockery, cutlery and food trays, should be washed and cleaned in the normal manner using hot water and detergent. No special requirements are necessary. Staff delivering or collecting food trays should wash their hands with liquid soap and running water or use alcohol based rub on leaving the patient area.

These guidelines should be read in conjunction with the NSW Health Department Infection Control Policy, Circular 2007/036, which be accessed at the following website: www.health.nsw.gov.au

NSW HEALTH HOSPITAL GASTRO PACK SECTION 3: COLLECTION OF SPECIMENS IN A GASTROENTERITIS OUTBREAK

The information below is provided to assist facility staff and treating doctors in managing the collection of specimens in the event of a gastroenteritis outbreak in your institution. Please consult your local Public Health Unit (PHU) and nominated laboratory in the collection and transportation of these specimens. Your local PHU may be able to assist and/or offer advice on issues such as: how many samples should be collected; what pathogens to test for; communication with laboratories; transportation and storage of specimens; and where to source specimen jars if needed.

Specimen Collection

- Stool specimens should be collected as soon as possible after symptoms begin, whilst the stools are still liquid or semi-solid.
- A minimum of one specimen each from six ill persons within the institution should be collected if possible.
- Staff should wear personal protective equipment when collecting specimens. For more information refer to 'Viral gastroenteritis: Infection Control Implications for Hospitals' (section 2 of the Gastro Pack)
- Stool specimens should be collected in sterile specimen jars and should fill approximately half of the jar (10-20ml). Some methods of specimen collection include: placing a disposable plastic container inside the toilet before use by the patient; or using a disposable spoon/spatula to collect faecal matter from incontinence pads.

Specimen Storage and Transportation

- Where possible, give your nominated laboratory prior notice of the gastroenteritis outbreak in your facility. Liaise with the laboratory manager at the facility about: the number of stool specimens that you will be submitting and the estimated time frame for results. There may also be specific requirements for the collection of certain specimens
- Stool specimens should be kept refrigerated at 4°C. Arrange transportation to your nominated laboratory as soon as possible after collection. The specimens should be bagged, sealed and kept on ice or in a refrigerated container whilst transporting. Do not freeze specimens.

- Ensure each specimen jar is clearly labelled and the pathology request form is complete with patient details, including their Medicare number, the address of your institution, the tests requested, and the requesting practitioner details and signature. It is also worthwhile to include an outbreak name on the form to streamline testing

Specimen Testing

- All specimens should undergo standard bacterial testing and testing for viral pathogens, depending on the symptom profile of patients and other epidemiological information. As a guide the following tests should be requested on the pathology form: microscopy culture and sensitivity and norovirus. However it is recommended you consult with your facilities infectious diseases physician or microbiologist, or your local PHU regarding what tests to request
- Stool specimens from symptomatic hospital patients should be tested for *Clostridium difficile* as soon as practicable as virulent strains of *C. difficile* have emerged worldwide and have caused extensive outbreaks in hospitals and the community with significant mortality, especially in the elderly. A factsheet “*Clostridium difficile* - Information for healthcare professionals” can be accessed at:
<http://www.health.nsw.gov.au/Infectious/gastroenteritis/Documents/Clostridium-factsheet-for-hcw.pdf>
- If viral pathogens are considered the likely cause of the gastroenteritis, aliquots of the samples should be forwarded to your nominated laboratory for viral studies as soon as possible, before bacterial cultures are finalised. Likewise if no bacterial pathogens are isolated then the sample should be forwarded by the pathology service to your nominated laboratory for viral studies, including norovirus. The norovirus EIA is routinely performed twice per week at ICPMR but may be performed on request after liaison with the laboratory
- Vomitus samples should only be collected after consultation with your nominated laboratory or local PHU. Stool specimens are preferred; however recommendations for the collection and storage of vomitus specimens are the same as those for stool specimens.

**NSW HEALTH HOSPITAL GASTRO PACK SECTION 4:
SIGNAGE**



Attention Visitors

This facility currently has patients who are experiencing **gastroenteritis** (diarrhoea and vomiting)

You may wish to reconsider visiting at this time
If it is necessary that you visit please wash your hands thoroughly with soap and water before visiting and before leaving

If you have any questions please discuss with the nurse in charge

**NSW HEALTH HOSPITAL GASTRO PACK SECTION 4:
SIGNAGE**



Attention Staff

Our hospital currently has patients &/or staff
who are experiencing
gastroenteritis

If you are sick with diarrhoea or vomiting please let
your manager know and exclude yourself from work
until at least 48 hours after your last episode of
diarrhoea or vomiting

NSW HEALTH HOSPITAL GASTRO PACK SECTION 5: LINE LISTING FOR A GASTROENTERITIS OUTBREAK IN A HOSPITAL

This line listing is a table in which important information is recorded on each person who is ill with gastroenteritis in an outbreak. This information will assist you in keeping track of sick residents and staff, enabling you to implement control measures to stop the outbreak spreading. The information is collated by your local Public Health Unit (PHU) and enables staff to determine the nature of the outbreak and likely mode of transmission and to assist in controlling the outbreak.

You can either print out and fill in the line listing below, or, access an electronic line listing at: <http://www.health.nsw.gov.au/infectious/gastroenteritis/Documents/gastro-outbreak-line-listing.xls>

The advantage of the electronic line listing is that it automatically creates epidemiological curves that can aid in the identification of the mode of transmission of the pathogen.

Instructions for use

- Please notify your local PHU of an outbreak of gastroenteritis in your institution (two or more people with sudden onset of vomiting or diarrhoea at the one time) and for assistance in the use and completion of this form (see list of NSW PHUs below)
- Please complete the Line Listing Form including: facility name, facility type (e.g. nursing home and/or hostel), contact person and title, total number of staff and residents at the facility, date of first case and the date reported to the PHU.
- Please record details for each person in the facility with gastroenteritis illness. Please use the same line listing to record details of the new cases throughout the duration of the outbreak (do not restart the list each day).
- **In the event of an outbreak this line listing should be faxed or emailed daily to your local PHU.** Please ensure all details are completed for each case. If you have any questions please telephone your local PHU.

NSW Health Hospital Gastro Pack Section 5: Line Listing for Gastroenteritis in a Hospital (page 1)

Name of Hospital: _____ Name of ward/s or unit/s: _____ No patients on ward/unit: _____ No. of staff: _____
 Contact Person: _____ Position Title: _____ Telephone No: _____ Fax No: _____ Email: _____
 PHU Notified (tick) Date Reported to PHU: _____ Date First Case: _____ Unique name/number for outbreak (PHU to fill in): _____

CASE DETAILS						DESCRIPTION OF ILLNESS				SPECIMEN			OUTCOME
Case No.	Full name & MRN	DOB & Age (yrs)	Gender	Staff (S) or Patient (P)	Current Ward/ Bed	Date of Onset	Time of Onset	Length of Illness (hrs)	Symptoms (see key)	Specimen Collected (Y/N) If Yes, specify type	Date Specimen Collected	Result (specify name of bacteria, virus, parasite or toxin)	Recovered (R) Died (D)

Symptoms Key: V=Vomiting D=Diarrhoea BD=Bloody Diarrhoea F=Fever>38.5C AC=Abdominal Cramps N=Nausea

Please use the same Line Listing for new cases – do not start a new one each day
 Please arrange stool samples (specimens) from affected persons

NSW Health Hospital Gastro Pack Section 5: Line Listing for Gastroenteritis in a Hospital (page 2)

CASE DETAILS						DESCRIPTION OF ILLNESS				SPECIMEN			OUTCOME
Case No.	Full name & MRN	DOB & Age (yrs)	Gender	Staff (S) or Patient (P)	Current Ward/ Bed	Date of Onset	Time of Onset	Length of Illness (hrs)	Symptoms (see key)	Specimen Collected (Y/N) If Yes, specify type	Date Specimen Collected	Result (specify name of bacteria, virus, parasite or toxin)	Recovered (R) Died (D)

Symptoms Key: V=Vomiting D=Diarrhoea BD=Bloody Diarrhoea F=Fever>38.5C AC=Abdominal Cramps N=Nausea

Please use the same Line Listing for new cases – do not start a new one each day
Please arrange stool samples (specimens) from affected persons

NSW HEALTH HOSPITAL GASTRO PACK SECTION 6:

Communicable Diseases Factsheet

Viral Gastroenteritis

Gastroenteritis is commonly caused by viral infections resulting in vomiting and diarrhoea. The viruses are easily spread from person to person. Thorough washing of hands with soap and running water are vital to prevent spread.

Issued: 8 December 2010

What is viral gastroenteritis?

Viral gastroenteritis is a common infection of the stomach and intestines that results in vomiting and diarrhoea. It can be caused by a number of different viruses, such as rotavirus and norovirus (previously known as Norwalk-like virus). There are many other causes of gastroenteritis including bacteria, toxins, parasites, and some non-infectious diseases.

What are the symptoms?

The main symptoms of viral gastroenteritis are vomiting and watery diarrhoea. Other symptoms may include nausea, fever, abdominal pain, headache, and muscle aches. Dehydration can follow. Symptoms can take between one and three days to develop and usually last between one and two days, sometimes longer.

How is it spread?

Viral gastroenteritis is highly infectious and is spread by the vomit or faeces of an infected person through:

- person-to-person contact, for example shaking hands with someone who has been sick and has the virus on their hands
- contaminated objects
- contaminated food or drink
- aerosolised particles when people vomit.

In most cases, spread occurs from a person who has symptoms. Some people can pass on the infection without symptoms, particularly in the first 48 hours after recovery.

Who is at risk?

Viral gastroenteritis can affect people of all ages. The illness severity differs, but can be more severe in older people or people with underlying medical conditions. Individuals are likely to be repeatedly infected throughout their lifetimes.

How is it prevented?

Practice good hygiene by washing hands thoroughly using soap for at least 10 seconds and dry them with a clean towel after using the toilet, after assisting someone with diarrhoea and/or vomiting, and before and after preparing food.

It is particularly important for people who have had gastroenteritis to be careful about practicing good hygiene because some people remain infectious even after they have recovered.

How is it diagnosed?

A diagnosis of viral gastroenteritis is usually based on the person's symptoms. Laboratory confirmation is important during outbreaks, and involves testing samples of stool (faeces).

How is it treated?

There is no specific treatment for viral gastroenteritis except rest and drinking plenty of fluids. Most people will recover without complications. However, viral gastroenteritis can be serious for those who may have difficulty replacing fluids and salts lost through vomiting and diarrhoea.

People with vomiting or diarrhoea should:

- rest at home and not attend work or school while sick
- Not attend child care for 24 hours after symptoms resolve

- not prepare food for others or care for patients, children, or the elderly. These precautions should continue until 48 hours after diarrhoea or vomiting ceases. This includes people who prepare food in the home or working in the food industry.
- wash hands thoroughly with soap and running water after using the toilet
- drink plenty of clear fluids, for example juice or soft drink diluted 1 part to 4 parts water, to prevent dehydration. Avoid undiluted fruit juice and soft drinks as they may increase dehydration and diarrhoea. Rehydration drinks that replace fluids lost are available from chemists. Intravenous fluids may be needed in severe cases of dehydration.

People caring for those with gastroenteritis should wash hands thoroughly with soap and running water after any contact with the sick person. Cleaning soiled surfaces and clothing reduces further spread of the virus.

When cleaning up vomit or faeces:

- wear gloves
- wash hands after gloves are removed and disposed
- use disposable paper towels or rags to remove any solid material and seal them in a plastic bag before placing in the rubbish bin
- clean any soiled object or surface with hot water and detergent and allow to dry thoroughly
- some people also recommend wearing a mask.

What is the public health response?

Outbreaks of viral gastroenteritis increase in winter and are common within families and group settings including nursing homes, hospitals, child care centres, and schools. Doctors and hospitals are required to notify their local public health unit whenever there are at least two cases of gastroenteritis that are linked.

Public health units are able to:

- advise on how to identify an outbreak
- advise on how to control the outbreak
- help investigate outbreaks to determine the source and mode of transmission
- advise on the exclusion of people with viral gastroenteritis from work, school or other public gatherings.

For further information please call your local Public Health Unit on 1300 066 055

Further information

- controlling outbreaks, please visit <http://www.health.nsw.gov.au/Infectious/Pages/a-to-z-infectious-diseases.aspx> and scroll down to Gastroenteritis (viral)
- how to look after children with gastroenteritis see the Gastroenteritis in Children fact sheet jointly developed by the Children's Hospital Westmead at www.chw.edu.au and the Sydney Children's Hospital at www.sch.edu.au.