

Public health advice for aged residential care facilities managing gastroenteritis outbreaks

National Public Health Service – Northern region

Kia ora

This resource provides guidance on the management of gastroenteritis illnesses (tummy bugs) in aged residential care facilities, including:

- rest home care
- continuing care (hospital)
- dementia care
- specialised hospital care (psychogeriatric care)

Gastroenteritis illnesses cause vomiting and/or diarrhoea (runny poo). Some gastroenteritis illnesses can spread very easily in places where people use shared facilities and spend large amounts of time together, such as residential care facilities.

This resource should be used alongside [Ministry of Health guidance](#) on disease management and cleaning/disinfection processes, as well as existing policies in place at your own facility.

The role of public health in supporting outbreak management

Health NZ | Te Whatu Ora National Public Health Service works to prevent disease and improve health in the Northern region. This includes supporting facilities managing infectious disease and illness outbreaks, such as gastroenteritis. We help facilities identify the illness, and then work with them to implement control measures that prevent others also becoming infected.

If you require assistance and your facility is located outside of the Northern region please contact your local Public Health Service: <https://www.health.govt.nz/new-zealand-health-system/key-health-sector-organisations-and-people/national-public-health-service/public-health-contacts>

If you are an aged residential care facility managing a diarrhoea or vomiting outbreak, notify public health for support and guidance:

- P: 09 623 4600
- www.arphs.health.nz/arc-form

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Section 1: Types of gastroenteritis



Gastroenteritis illnesses are commonly referred to as tummy bugs or gastro. They cause vomiting and diarrhoea, as well as other symptoms.

Viral gastroenteritis and bacterial gastroenteritis are the two main types of gastroenteritis. Viral gastroenteritis can spread more easily from person to person, while bacterial gastroenteritis is more commonly spread through contaminated food and drink.

Viral gastroenteritis

How it spreads

There are various types of viral gastroenteritis, but the most common is norovirus. Norovirus and other gastro bugs are hardy viruses that can survive on surfaces and objects.

When people are ill with gastroenteritis they pass the virus out of their body through their vomit (sick) and faeces (poo).

If you then eat food, drink water or touch items contaminated with germs from the infected poo or vomit, you can become infected too. You can also get it from breathing in virus particles in the air, which are released when someone with the virus vomits.

Symptoms

Symptoms of viral gastroenteritis include:

- vomiting and diarrhoea (runny poo), which are often very severe
- tummy pain
- fever
- headaches

A person usually develops symptoms 10 to 50 hours after getting the virus.

Treatment & recovery

There is no specific treatment for the virus. It's recommended people drink lots of fluids and get plenty of rest. Most people are able to recover at home.

Although most people with viral gastroenteritis will recover within one to three days, they can still pass on the virus to others for several days following this.

If there are any ongoing symptoms or if you have any concerns, please seek medical attention.

Bacterial gastroenteritis

Common types of bacterial gastroenteritis infections in New Zealand include:

- Campylobacter
- Giardia
- Listeriosis
- Salmonella
- Shigella

How they spread

Bacterial gastroenteritis usually occurs when people eat food or drink water contaminated with harmful bacteria. For example raw chicken, unsafe water in streams or self-supplying water sources (like roof or tank water supply).

People and animals with these types of infections can also pass the bacteria out of their body in their faeces, and can then contaminate food, drink and surfaces or objects. If others then swallow the bacteria they can become infected too.

Bacterial gastroenteritis infections are less commonly spread through close contact.

Symptoms

Symptoms vary, but typically include:

- vomiting and diarrhoea (runny poo), which are often very severe
- tummy pain
- fever
- headaches

Treatment & recovery

Some infections can be treated with antibiotics, but these are not usually required. Your facility's health professional will advise when antibiotics are required.

Most people are able to recover at home. Drinking lots of fluids and getting plenty of rest are important to recovery.

Symptoms may occur anywhere from one day to one month after becoming infected.

Section 2: When you suspect an outbreak



Step 1: Identifying and notifying an outbreak

An outbreak is when a number of people report similar symptoms, and are linked by time or place.

If two or more people from the same ward, floor or wing report diarrhoea and/or vomiting in a week, you should treat it as a gastroenteritis outbreak, and notify public health so we can provide support and guidance to your facility.

Contact public health within two days if you suspect there is an outbreak at your facility.

Call 09 623 4600 or use the online form: www.arphs.health.nz/arc-form

Step 2: Outbreak response control measures

If you suspect a gastroenteritis outbreak you should implement control measures to prevent further spread of the illness:

- implement heightened cleaning and disinfection
- ensure unwell people are quarantined and excluded as necessary
- encourage everyone to practice good hand hygiene, to minimise the risk of the bug spreading
- adopt other measures as recommended by public health to bring the outbreak under control
- follow your facility's outbreak policy

These measures should remain in place until advised by public health.

All staff, including cleaning staff, should be provided with information on heightened cleaning and disinfection procedures, including food hygiene and catering procedures.

Step 3: Set up an illness log

An illness log is a tool to record how many people are unwell and how they may be linked. It helps identify how an outbreak may have started and whether control measures are stamping it out.

If an outbreak is suspected you should set up an illness log. Record each event where someone reports being unwell. Include information on where the person is located, when they became unwell and recover, what symptoms they had and what actions have been taken.

See Appendix V for a template illness log.

During an outbreak the updated illness log should be emailed to the Health Protection Officer assisting you with the outbreak. This will help us assess the status of an outbreak and identify what actions are required.

Step 4: Testing people who are unwell

Testing is required in an outbreak, to identify:

- what illness people have and whether they are linked
- what the cause of the illness is, and
- whether people are still infectious (able to pass on the illness or disease)

Testing for gastroenteritis happens through testing samples of people's faeces (poo). Testing samples

should be collected from ill residents and staff as soon as possible following the onset of symptoms.

During an outbreak, testing kits are delivered directly to staff who are unwell. The tests for unwell residents will be organised by the facility GP.

Some people, such as those involved in food preparation, can only return to your facility once their testing shows they are no longer infectious or symptom-free for 48 hours. This does depend on the outbreak, public health will advise when staff involved with food preparation can return to work.

Section 3: Managing an outbreak



Public health support

If an outbreak is suspected public health can support you by:

- confirming an outbreak and what illness is causing it
- identifying the likely cause of the outbreak and how it spread
- reviewing your outbreak control measures and advising on any further actions required
- inspecting your site, and assessing hygiene, cleaning and disinfection measures
- advising on the exclusion of people with symptoms
- providing health advice to send out to staff, residents and visitors

Sometimes when an outbreak occurs in a public setting, it generates media interest. Public health can assist with media queries on your behalf to let you focus on outbreak management and help maintain confidentiality.

See Section 5 for detailed guidance on cleaning and disinfection measures to put in place during an outbreak.

Quarantine and exclusion

Quarantine people who are unwell and requiring them to stay away are key to preventing the spread of gastroenteritis.

Your facility's sickness and absence policy should consider staff non-compliance and how it will be addressed.

The following should be included as part of your facility's sickness and absence policy:

Exclusion

- Staff should inform you if they are unwell with vomiting or diarrhoea and stay home
- Residents should be quarantined from other residents as much as possible

Returning

- Staff / visitors should stay at home or quarantined until at least two days (48 hours) after the end of their symptoms.
- For certain illnesses staff may also need to carry out further testing to confirm they are no longer infectious before they can be given clearance to go back to work. Staff involved in food preparation are also sometimes required to carry out further testing before being given clearance to return.

Ending quarantine for residents

- Residents can return to their normal activities when they have been symptom-free for 48 hours.

Keep people with gastroenteritis symptoms away for at least 48 hours after their symptoms stop.

Communication

During the outbreak it is essential that all staff (including casual staff, contractors and cleaners), families and visitors are aware of the outbreak and the control measures in place.

Communications to staff and families should:

- confirm an outbreak has occurred
- explain how gastroenteritis spreads, symptoms, and how to prevent it
- outline what control measures are in place
- encourage proper hand hygiene
- explain what to do if staff, visitors or residents have symptoms
- explain how long people with symptoms need to stay away from the facility

- affected floors, wings or wards should be restricted to all visitors until the outbreak has ended
- put up signage to notify visitors

Protecting and maintaining privacy

In an outbreak situation, facilities are required to provide information to public health so we can help stop the spread of illness.

This may include:

- the names and contact details of staff and residents
- information recorded in the illness log

All information collected by public health will be managed in line with our privacy policy. To learn more visit <https://arphs.nz/your-information>

This privacy policy can also be shared with staff and residents.

It's also important that private health information regarding people who are unwell is kept confidential and protected where possible.

If staff, residents or visitors become aware of private health information about others, they should be reminded to keep it confidential. Sharing information about people's health, especially on social media can lead to unwanted behaviours such as bullying and abuse.

Section 4: Hand hygiene, food safety and water safety



This section outlines best practice for hygiene, cleaning and disinfection processes.

Hand hygiene

Effective hand washing is the most important way to prevent the spread of infection, and should be practised by all.

It's important to encourage proper handwashing and drying, before and after:

- going to the toilet
- preparing or eating food and having drinks.

To wash your hands properly:

- use warm water and soap
- rub hands together vigorously for 20 seconds, ensuring that your whole hands are washed, including the wrists and around the nails
- dry thoroughly using disposable paper towels for 20 seconds.

Alcohol wipes and antibacterial gels are far less effective against viruses.

If staff involved in food preparation choose to wear disposable gloves, ensure these are single use only, changed between every task and disposed of safely. The use of gloves does not replace the need for effective hand hygiene.

Resources to promote handwashing are available from Health Ed:

<https://healthed.govt.nz/products/wash-and-dry-your-hands>

Food safety

Gastroenteritis illnesses can be caused by eating food that is contaminated with nasty bugs.

In addition to practising good hand hygiene, it's important to ensure food is handled, prepared, cooked and stored safely.

To help prevent the spread of foodborne illness you should:

- educate all staff and residents on food hygiene and good hand hygiene
- require all staff to undergo a Basic Food Hygiene course
- only source catered food from registered food premises.

Keeping food at the right temperature

- keep food hot (over 60°C) or keep food cold (5°C or less)
- if reheating, it is recommended that food should be reheated to 70°C for 2 minutes. (the best way of checking food temperatures is with a probe thermometer)
- only reheat food once
- use a non-mercury thermometer to check the fridge temperature is 5°C or less
- when food has not been stored under 5°C or over 60°C, the 4 hour / 2 hour rule should be followed.

The '4 hour / 2 hour rule'

If ready-to-eat food has been at temperatures between 5°C and 60°C for a total of:

- less than 2 hours: it must be refrigerated or used immediately.
- between 2 and 4 hours: it must be used immediately.
- 4 hours or longer: it must be thrown.

Support following a food-borne illness outbreak

New Zealand Food Safety (Ministry for Primary Industries) is responsible for providing advice to registered food premise settings (involving food for sale) that have a food-borne illness outbreak.

If you do not have food for sale then public health will undertake this role.

Water safety

Gastroenteritis illnesses can also be caused by drinking water that is contaminated with bacteria, viruses or parasites.

Most facilities in the Auckland region access their water from Watercare, and are on a 'reticulated' or 'town water supply'. Watercare is responsible for ensuring this water is safe to drink and use. In many parts of Northland, local councils provide safe drinking water to communities.

However, some facilities are 'self-supplying', which means they get their water from private water sources (such as roof water or bores). These facilities are required to register with Taumata Arowai, the drinking water regulator.
<https://www.taumataarowai.govt.nz/for-water-suppliers/register-your-supply/>

Section 5: Cleaning and disinfection



This section provides recommended cleaning and infection control measures to be implemented during a gastroenteritis outbreak.

Cleaning and disinfection

Only use sodium hypochlorite (bleach solutions) for disinfection during outbreaks.

While non-bleach disinfectants are effective against some bacteria, they do not destroy viruses such as norovirus.

Sodium hypochlorite products are very effective, widely available and relatively cheap. They are commonly used in homes, early learning services, hospitals, swimming pools and in drinking water supplies.

Bleach (hypochlorite) solutions

Household bleaches are sold in different strengths, usually 2 - 5% hypochlorite. The strength is normally written on the label.

The bleach then needs to be diluted with water to create a bleach 'solution'. Different strength solutions are required for different areas. Instructions on doing this safely are below.

The recommended concentration of bleach for disinfection is generally 0.1% hypochlorite during the day when residents are in common areas. The solution should be washed away with water after half an hour.

Objects used in food preparation (e.g. utensils) should be sanitised using a weaker solution.

It is recommended to use a 0.5% hypochlorite solution on high-touch areas at the end of the day so that disinfection takes place overnight. The solution should be washed away with water the next morning.

To increase the amount of solution made, double (or triple) the amount of bleach and water added.

There is a poster included in Appendix III to help staff and cleaners visualise how to properly dilute bleach.

0.1% hypochlorite

Strength of bleach		Bleach quantity	Water quantity	Total volume
% hypochlorite	g/100ml hypochlorite			
0.5%	0.5 g/100ml	50ml	450ml	500ml
2%	2g/100ml	25ml	475ml	500ml
3%	3g/100ml	10ml	290ml	300ml
4%	4g/100ml	10ml	390ml	400ml
5%	5g/100ml	10ml	490ml	500ml

0.5% hypochlorite

Strength of bleach		Bleach quantity	Water quantity	Total volume
% hypochlorite	g/100ml hypochlorite			
0.5%	0.5 g/100ml	Use undiluted	Nil	Use undiluted
2%	2g/100ml	100ml	300ml	400ml
3%	3g/100ml	50ml	250ml	300ml
4%	4g/100ml	50ml	350ml	400ml
5%	5g/100ml	50ml	450ml	500ml

Safety tips

- ☐ Never mix disinfectant chemicals, as it can produce harmful toxic gases.
- ☐ Bleach can irritate the nose, lungs and skin, and some people are particularly sensitive. It can help to wear a face mask and long sleeved clothing.
- ☐ Wear gloves, especially if handling undiluted bleach.

Storage tips

- Make a fresh bleach solution each day and discard it if not used within 24 hours. Bleach solutions lose strength over time and may not be powerful enough to destroy germs if kept for more than one day.
- If you need to store a bleach solution keep it in a cool dark place to maintain strength. Make sure it is away from direct sunlight.
- Store disinfectants and diluted disinfectants safely away from children and label them properly.
- Check expiry dates of cleaning products regularly. Do not use expired products.

Using bleach solutions

To use bleach effectively:

- **Clean:** wipe away vomit and clean the area to be disinfected.
- **Dilute:** mix the bleach with water to make a 0.1% strength hypochlorite solution.
- **Saturate:** the area that needs to be disinfected with the bleach solution.
- **Wait:** leave the solution on the area for as long as possible, preferably 30 minutes.
- **Wash off:** wash away the solution using lots amounts of water. This prevents residents and staff being exposed to bleach solution. If outside, use a hose.

Cleaning and disinfection guidance

All areas

- Cleaning and disinfection with a 0.1% hypochlorite solution should take place at least twice a day until the outbreak is over.
- A steam mop could be effective for cleaning. Disinfection is still needed after if you use a steam mop.
- All dining room areas should be cleaned and disinfected at the outset of any outbreak being identified.
- At the end of each day, use a stronger bleach solution (0.5% hypochlorite) to disinfect high touch surfaces overnight. The solution should be rinsed off thoroughly the next morning.
- At the end of every outbreak, public health recommends one final clean-up and disinfection with a 0.1% hypochlorite solution for all areas. This should happen when no new people report symptoms for at least 48 hours.

Food preparation areas and objects

These steps should always be followed to ensure that the cleaning of food areas is effective:

- Clean all work surfaces, benches, shelving, doors, door and cupboard handles, storage areas, sinks, floors and any other areas possibly contaminated.
- Wash with hot water and detergent, then saturate with a 0.1 % hypochlorite solution for disinfection. Leave the disinfectant on surfaces for at least 30 minutes, then rinse with cold water.
- Sanitise all objects used for food prep, cooking and eating (such as utensils, equipment, crockery and cutlery). Wash

with hot water and detergent, sanitise and then rinse with clean cold water.

Sanitising can be carried out by one of the following methods:

- immersing in hot water at a minimum of 82°C for two minutes (this can be done in a dishwasher as long as the rinse cycle reaches this temperature)
- washing by hand then immersing in a 0.1% bleach solution for at least three minutes, using water from a hot water tap (at 50°C)
- for equipment that cannot be completely immersed, disinfect using a 0.1% bleach solution and leave for 10 minutes before wiping off.

Toilets and bathrooms

- Clean all areas in the toilet/bathroom, including toilet bowls, wash-hand basins, tap handles, doors, door handles, toilet flush buttons/handles, floors and any other areas that may have been contaminated.
- Clean and then wash using hot water and detergent, then saturate with a 0.1% hypochlorite solution for disinfection. Leave the disinfectant on surfaces for at least 30 minutes, then rinse with cold water.
- At the end of each day, use a stronger bleach solution (0.5% hypochlorite) to disinfect high touch surfaces overnight. The solution should be rinsed off thoroughly the next morning.

Other areas

- Clean and then wash using hot water and detergent, then saturate with a 0.1% hypochlorite solution for disinfection. Leave the disinfectant on surfaces for at least 30 minutes, then rinse with cold water.

Cleaning faeces and vomit

When a faecal accident has occurred:

- Ensure all surrounding surfaces are cleaned using hot water and detergent, then saturate with a 0.1% hypochlorite bleach solution for disinfection. Leave the disinfectant on surfaces for at least 30 minutes, then rinse with cold water.

Where vomiting has occurred:

- Ensure all surrounding surfaces are cleaned using hot water and detergent, then saturate with a 0.1% hypochlorite bleach solution for disinfection. Leave the disinfectant on surfaces for at least 30 minutes, then rinse with cold water.
- Keep people away from rooms where someone has vomited, until at least one hour afterwards. This is because norovirus germs can be breathed in after someone has been sick.
- Any uncovered food in the same area as someone who vomited must be thrown away.

When cleaning vomit or faeces:

- Use disposable brushes, mops and cloths and discard after use.
- Clean all surface soiling thoroughly with hot water and detergent, then use a vapour steam cleaner that boils the water until it turns to steam.
- We recommend that all carpets contaminated by vomit or faeces should be steam cleaned as high temperature and moisture are required to kill viruses.


Appendix I: Cleaning posters for using bleach

[Link to download PDF >](#)


















Health New Zealand
Te Whatu Ora


HOW TO DILUTE BLEACH FOR DISINFECTING





USE ONLY SODIUM HYPOCHLORITE (BLEACH-BASED) PRODUCTS FOR DISINFECTION. THE MEASUREMENTS BELOW ARE FOR A 0.1% HYPOCHLORITE SOLUTION.

ORIGINAL STRENGTH OF BLEACH	BLEACH (ML) 	WATER (ML) 	TOTAL (ML)
1%	 100	 900	 1000
2%	 100	 1900	 2000
3%	 100	 2900	 3000
4%	 100	 3900	 4000
5%	 100	 4900	 5000



NEVER MIX BLEACH WITH OTHER CLEANING CHEMICALS (LIKE VINEGAR OR WINDOW CLEANER). IT CAN CREATE HARMFUL GASES AND LIQUIDS.

DISINFECTING DURING AN OUTBREAK



DO



USE A DILUTED BLEACH (SODIUM HYPOCHLORITE) SOLUTION.



WEAR GLOVES AND A MASK, ESPECIALLY IF HANDLING UNDILUTED BLEACH.



LEAVE THE BLEACH SOLUTION ON SURFACES FOR 30 MINS, AND RINSE OFF WITH WATER.



CLEAN AND DISINFECT ALL AREAS AT LEAST TWICE A DAY.



DON'T



USE EXPIRED CLEANING PRODUCTS.

USE CLEANING PRODUCTS THAT ARE NOT BLEACH. THIS INCLUDES:

- AMMONIA-BASED PRODUCTS
- ALCOHOL-BASED PRODUCTS
- HYDROGEN PEROXIDE CLEANERS



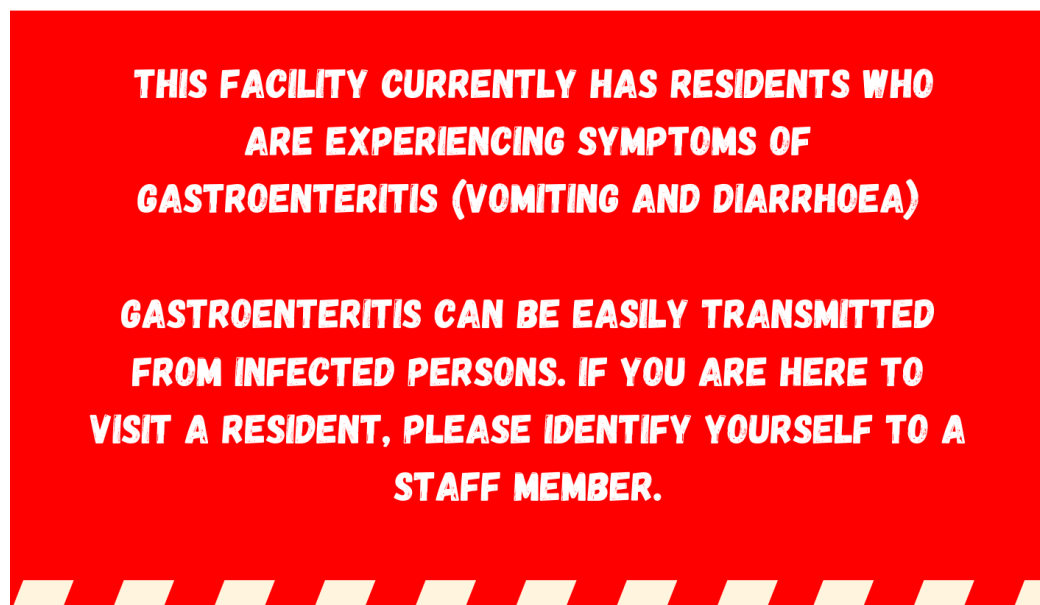
MIX BLEACH WITH OTHER CLEANING CHEMICALS.



USE BLEACH SOLUTIONS OLDER THAN 24 HOURS. BLEACH SOLUTIONS LOSE STRENGTH OVER TIME.

Appendix II: Stop signs for visitors and staff

[Link to download PDF >](#)



ATTENTION

STAFF AND VISITORS



**OUR FACILITY HAS RESIDENTS AND/OR STAFF WITH
GASTROENTERITIS (VOMITING AND/OR DIARRHOEA).**

**TO PROTECT YOURSELF AND OTHERS PLEASE WASH
AND DRY YOUR HANDS THOROUGHLY AND OFTEN.**

THANK YOU FOR YOUR COOPERATION.

Appendix III: External resources and guidance

Ministry of Health – [Guidelines for the Management of Norovirus Outbreaks in Hospitals](#)

Appendix IV: Outbreak management check list

- [Download template checklist \(.docx\) >](#)

Name of facility			
Outbreak number			
Any prior outbreaks not reported			
Date reported to public health			
Contact details			
Actions taken			
Task	Yes	No	Comments
Illness log started			
Communication sent to staff, residents & families			
Public health notified of outbreak			
Unwell residents quarantined until symptom-free for at least 48 hours			
Unwell staff excluded until symptom free for at least 48 hours			
Sufficient resources for hand washing and hand drying (e.g. soap, paper towels)			
Cleaning and disinfection commenced			
0.1 % hypochlorite bleach solution prepared			
Appropriate signage displayed to staff and visitors			
Reminders sent to staff, residents and visitors on hand hygiene and posters put up			
Suitable PPE available and worn during cleaning and disinfection			

Appendix V: Illness log

[Download illness log template \(word doc\) >](#)

Name (resident or staff)	Are they a resident or staff member?	Contact details (if staff member)	NHI (if available)	Date of Birth	Sex	Room number	Illness start date	Symptoms (diarrhea, vomiting, stomach pain, feeling sick, fever, headache)	Date illness stopped	Date absentee from work (for staff)	Date returned to work (for staff)	GP visit?

