

Viral or Suspected Viral Gastroenteritis Outbreaks

Information for Directors and Staff of Early Childhood Education and Care Services

Introduction

Gastroenteritis outbreaks in early childhood education and care services can be disruptive to staff and families that attend the centre, impacting on staff attendance as well as parents work life. This document has been developed for directors of Early Childhood Education and Care Services (ECECS) to assist them in the management of gastroenteritis outbreaks in line with [Staying Healthy: Preventing infectious diseases in early childhood education and care services, 5th edition, 2013](#).

What is viral gastroenteritis?

Viral gastroenteritis can occur when a virus infects a person (child or adult) causing diarrhoea and/or vomiting. Other symptoms may include nausea, stomach cramps, fever, headache and muscle aches. It takes about 1–3 days to develop symptoms and the illness may last a day or two. The diagnosis of viral gastroenteritis is normally made on the basis of symptoms and testing of faeces or vomit. Viral gastroenteritis disrupts normal activities, and can be serious in the very young or the very old, sometimes causing dehydration.

Other causes of gastroenteritis outbreaks

While viral gastroenteritis outbreaks are more common in ECECS, other germs (bacteria and parasites) can also cause gastroenteritis. In an outbreak public health provide a letter for parents to take with their child if medical assessment is required. The letter contains recommendations for tests that may assist to identify the cause of the outbreak.

How is it spread?

Viral gastroenteritis is highly infectious. It can be spread by:

- Person-to-person contact (for instance when the virus is on people's hands).
- Through the air (when a person vomits, large amounts of virus particles pass into the air as an invisible mist and can infect other people in the same room).
- When hands, food, objects and surfaces become contaminated with faeces or vomit and the infectious organism is transferred to the mouth when eating, drinking or touching the mouth.

Someone with viral gastroenteritis is most infectious while they have the symptoms and for at least 48 hours after the symptoms have stopped.

Even after this time frame, some viruses can still be present in body fluids, therefore it is essential to always practice recommended hand hygiene and infection control.

Outbreaks commonly occur in settings such as early ECECS. The onset of vomiting and or diarrhoea in a number of people over a period of 1–3 days suggests that the infection is spreading within the childcare centre.

The following actions should be **implemented immediately** to stop the spread of infection.

Exclusion

A **single case** (no other cases within three days at the same centre) of gastroenteritis (children and adults) should be excluded from child care until at least 24 hours after the symptoms have ceased. Two or more cases may indicate transmission within a centre, therefore until the cause is identified **the exclusion period should be for 48 hours after symptoms cease**. Staying Healthy pp. 53 & 99 recommends the ECECS contact the Public Health Unit if there are two or more cases of gastroenteritis in the centre.

Seek further advice

Document the number of cases, dates of onset, duration etc.

Inform the Public Health Unit on suspicion of a gastroenteritis outbreak;

- Staying Healthy (2013) pp.53 & 99 recommends the ECECS contact the Public Health Unit if there are two or more cases of gastroenteritis in the centre for specific recommendations to assist in the management of the outbreak.
- Seek advice from your Public Health Unit if a food handler reports being ill with diarrhoea or vomiting.
- Disseminate information to parents and staff including the letter from the Public Health Unit to parents. This encourages sick staff and children to have a sample collected which assists in identifying the cause and controlling the outbreak.

Hand hygiene

Alert staff to the outbreak and to the need to ensure good hygiene is practiced by staff, visitors and children. Children should be supervised and assisted where required, when attending to hand hygiene.

For detailed description of best practice in hand hygiene see Staying Healthy (2013) pp.10–13.

Hand washing:

Hand washing **is considered to be the most cost effective and simple method of preventing the spread of infection.**

- Always wet hands first with running water.
- Apply liquid soap to hands.
- Lather hands thoroughly including wrists, the palms, between the fingers, around the thumbs and under the nails (for about the time it takes to sing happy birthday).
- Rinse hands under running water.
- Dry hands thoroughly with a paper towel.

Effective hand drying is just as important as thorough hand washing. Damp hands pick up and transfer up to 1000 times more bacteria than dry hands. Drying your hands thoroughly also helps remove any germs that may not have been rinsed off.

Gloves:

Always wash hands well before **and after** using gloves. Refer to Staying Healthy (2013) pp.43–44 for detailed information about when and how to use gloves. If there is a chance that you may come in contact

with faeces, urine, saliva, vomit or blood, you should wear disposable gloves. If you are not likely to come in contact with these body fluids, there is no need to wear gloves.

Hand hygiene gels:

- Alcohol based hand rubs (e.g. 60–80% alcohol-based solutions) can be used to decontaminate hands when hand washing facilities are not available, but hands should be washed as soon appropriate facilities are available as gels are not effective against some viruses.
- Alcohol based hand gels are not useful if hands are visibly dirty or contaminated with body fluids, faeces or vomit.

Encourage hand washing:

- Choose hand washing products that are non-irritant and easy to use.
- Ensure adequate supplies of hand washing products and paper towels.
- Display posters encouraging correct hand hygiene.
- Make hand washing an important part of the culture of the organisation.
- Ensure that hand washing remains a priority (and is adequately resourced).

Food preparation practices during the outbreak

Food safety standards should be enhanced and include additional environmental cleaning measures throughout the outbreak (see section below).

Strict attention to hygiene by all adults and children when preparing food and supervising or eating food in common areas is required.

- Staff involved in direct childcare should not be involved in food preparation.
- Where ever possible formula bottles should be prepared by parents at home.

Environmental cleaning

Some harmful viruses survive well in the environment and can spread via contaminated environmental surfaces. Staying Healthy (2013) p.52, states that the aim of environmental cleaning is to minimise the number of germs that survive on surfaces in the education and care service. In an outbreak additional cleaning, twice daily, is required to ensure frequently touched environmental surfaces such as door handles, rails, phones, bathroom taps, children's tables, chairs, toys and other surfaces remain clean and germ free (see cleaning guidelines below).

If someone vomits in an area where there is uncovered food, discard all food, clean and disinfect all surfaces and keep the area closed for at least 1 hour.

Environmental surfaces should be cleaned thoroughly with a neutral detergent and warm water and dried before applying bleach based disinfectant.

Use a single use disposable cloth for cleaning and /or where necessary a soft brush to remove visible grime.

Infection control guidelines recommend the use of sodium hypochlorite (household bleach) at 1000 ppm (0.1%) to effectively kill viruses in the environment.

Household bleach comes in a variety of strengths ranging from 2–5% sodium hypochlorite solution as indicated on the product label.

In order for bleach to be effective at a concentration of 1000 ppm (0.1%):

- It needs sufficient time to kill the virus – at least 10 minutes contact time.
- Environmental surfaces to be clean (free of vomit or faeces or any other organic matter).
- Dilutions of bleach to be made up just before using. Do not top up (discard left over solution and wash and dry containers between use).

Recipes to achieve a 1000 ppm (0.1%) bleach solution

Undiluted strength of bleach		Solution recipe		Volume of bleach and water required for 5 litres	
% available chlorine	Parts per million available chlorine	Parts of bleach	Parts of water	Bleach	Water
1	10,000	1	9	500 mL	4,500 mL
2	20,000	1	19	250 mL	4,750 mL
3	30,000	1	29	167 mL	4,833 mL
4	40,000	1	39	125 mL	4,875 mL
5	50,000	1	49	100 mL	4,900 mL

Bleach solutions should NEVER be applied using a spray bottle. This is an Occupational Health and Safety Hazard.

As per Staying Healthy (2013) p.26, spray bottles are not recommended for general cleaning - spraying a surface with a fine mist and then wiping it with a cloth or paper towel will not be enough to dislodge germs. There is also a risk of germs growing in the bottle and in the detergent mixture.

Cleaning up vomit and faeces

- Make up a disinfectant (bleach) solution as described above.
- Wear disposable gloves and an apron.
- Use paper towels to soak up excess liquid and place in a leak-proof plastic bag.
- Clean the surfaces in the vicinity of the potentially contaminated area (up to 3 metres) with detergent and warm water and dry thoroughly.
- Disinfect the area using the freshly made bleach solution and a mop and bucket for larger surfaces.
- Detachable mop heads should be laundered in a washing machine at high temperature and left to air dry after use
- Wash hands thoroughly as above.

Cleaning specific items

- Toys should be washed in warm soapy water then disinfected using the bleach solution and left to dry.
- It can be helpful to have a “rotation system” for toys to ensure toys are cleaned thoroughly and regularly.

- Linen should be laundered using a hot wash. If an outside laundry company is used they should be advised that the linen is potentially infectious.
- Soiled carpets should be cleaned with detergent and then steam-cleaned.
- Soft furnishings or metal surfaces that might be damaged by using the disinfectant solution should be cleaned with detergent and then left to dry thoroughly.

General information

- Play dough if used should be made daily and disposed of at the end of each day during the outbreak.
- Children should not share play dough in an outbreak setting.
- Cooking activities should be cancelled.
- Group functions/excursions should be cancelled.

When the outbreak is over:

A final thorough clean of all surfaces including soft furnishings in the Centre should be carried out once the outbreak has been declared over i.e. 72 hours after the resolution of symptoms in the last case.

Further Information

Australian Government Department of Health and Ageing, (2010), Guidelines for the public health management of gastroenteritis outbreaks due to norovirus or suspected viral agents in Australia, found at <http://www.health.gov.au/internet/main/publishing.nsf/content/cda-cdna-norovirus.htm>.

Australian Government National Health and Medical Research Council, (updated June 2013), Staying Healthy Preventing infectious diseases in early childhood education and care services, fifth edition, found at https://www.nhmrc.gov.au/files_nhmrc/publications/attachments/ch55_staying_healthy_5th_edition_150602.pdf

Outbreak Management Checklist:

- Details of staff and children affected by gastroenteritis compiled.
- Local Public Health Unit promptly notified of gastroenteritis outbreak.
- Staff aware of outbreak and need to notify further cases to Centre Director.
- Signage placed at entry notifying of outbreak to inform parents, staff and visitors.
- Letter from Public Health Unit disseminated to all parents and staff regarding outbreak.
- Staff and parents advised of need for 48 hour exclusion period following cessation of all symptoms.
- Household bleach available for cleaning.
- Additional cleaning implemented as advised by Public Health Unit.
- Staff crossing over of duties between direct child care and food handling does not occur.
- Cooking activities and all group functions cancelled until outbreak over.
- Play dough made daily and disposed of at the end of the day.
- Line lists/ self-audits etc. returned to the Public Health Unit daily as required.

Contact details for Public Health Units available at:

<https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units/default.asp>

Recognising and Managing Gastroenteritis Outbreaks

