



Outbreak Management Action Plan - Gastroenteritis Procedure

1. Background

Gastroenteritis is a term used for irritation or infection of the digestive tract. Major symptoms include diarrhoea, vomiting, nausea and abdominal cramps. Other symptoms such as fever, headache and malaise may also occur. Gastroenteritis outbreaks impact patients, visitors and staff in healthcare facilities worldwide. In Australia, outbreaks of gastroenteritis in acute care settings are common. The majority of these outbreaks are viral (frequently caused by norovirus). Also commonly detected outbreaks involve diarrhoea pathogens such as Salmonella and Campylobacter. Transmission occurs by direct person-to-person transmission, airborne spread through aerosolised vomit, consumption of contaminated food or water, or contact with contaminated environmental surfaces or fomites (objects).

Outbreak management enables the organisation preparedness and response in the event of a potential or actual gastroenteritis outbreak. Planning promotes appropriate patient safety and quality of care practices to prevent the spread of infection while maintaining organisational activity. It is important to contain and control the outbreak as soon as possible.

2. Outbreak Management Procedure

During the process of outbreak investigation and related management implementation steps are taken more or less simultaneously.

The main steps to follow are: recognise the outbreak and prepared to investigate, immediately implement control/contain measures, verify the diagnosis and confirm that an outbreak exists, establish case definitions and find cases, characterise the outbreak by person, place, and time, determine who is at risk, develop a hypothesis – the ‘how’ and ‘why’, and test hypothesis with establish facts, implement ongoing control/prevention measures and communicate findings.

A suspected outbreak may be identified; by a healthcare worker, through the laboratory or surveillance systems.

When a suspected outbreak is detected the healthcare facility must notify Infection Prevention and Control and Public Health as soon as possible.

An outbreak management team is formed relevant to the size and seriousness of the outbreak.

The Outbreak Management Action Plan is to be used in suspected or actual gastroenteritis outbreak. It is not always possible to identify the causative organism in the first instance therefore analysis of clinical presentations combined with a risk assessment is to be carried out by the outbreak management team. Send specimens for testing as soon as possible ensuring the correct labelling as specific to the outbreak. Courier of specimens to the laboratory can be considered. It is important to liaise with the laboratory to set up a communication process for results.

The Outbreak Management Action Plan is to be completed for each specific action. If the action is not completed note in the comment column why there was a variance. This document is used as part of the review at the end of the outbreak to determine what lessons are learnt.

2.1 Implement control measures

- a. Immediately implement transmission-based precautions including isolation and cohorting and reinforce standard precautions. Immediately begin enhanced environmental cleaning
- b. Identifying cases - begin a line list of patients and staff
- c. Communication - A daily situation report is to be generated by a designated outbreak management team member who emails this to the other members of the outbreak management team and appropriate staff. This report is fed back to all staff involved at ward level (e.g. medical, nursing, support/hotel services staff) and relevant information documented in the communication book.
- d. Patient placement is important in an outbreak. A system is used, preferably electronic, for decision-making for patient and staff placement and movement. Information needs to be timely and accurate.

2.2 Consideration for closure of wards

- a. The isolation of cases within single rooms, two (2) or four (4) bedded rooms and smaller clinical areas as opposed to the early closure of complete wards allows flexibility of response and the early terminal cleaning and re-opening of affected sub-ward areas. Only when there is evidence of a failure of containment within all available single-occupancy rooms and bays, should whole ward closure be considered.
- b. If a clinical area or unit has both closed and non-closed areas within it, the non-closed areas will remain open to admissions but a risk assessment should be made as to whether patient transfers from the non-closed areas to other clinical areas should be delayed until the risk of the outbreak emerging within the non-closed area is sufficiently low.

The outbreak is declared over - at least 48 hours after the resolution of vomiting and/or diarrhoea in the last known case. The outbreak management team may choose to extend this depending on the outbreak situation.

Evaluation - A debriefing meeting with staff is important to support staff and receive feedback. The outbreak management team review lessons learnt using the Outbreak Management Action Plan and related documents.

Sentinel events during a gastroenteritis outbreak are to be reported as per the [Operational Directive 0465/13 Guidelines for Prevention and Management of Gastroenteritis Outbreaks in Residential Care](#) and through WACHS Safety and quality Sentinel events reporting system.

3. Definitions

Aerosol	Tiny airborne droplets that are exhaled during coughing, sneezing or vomiting and can remain suspended in air or on dust particles. The droplets in the air may be breathed in directly by another person, or indirectly into another person through contact with surfaces and hands with the droplets on them.
Disinfection	A process that is intended to kill or remove pathogenic micro-organisms.
Incubation period	The interval from the ingestion of the micro-organism (for gastroenteritis) to the time clinical illness begins.
Infectious gastroenteritis	Gastroenteritis caused by an infection with the microorganism. A large range of micro-organisms have been reported to cause gastroenteritis including norovirus, rotavirus, <i>Salmonella</i> and <i>Clostridium perfringens</i>
Infectious period	The period of time that the infected person can transmit the disease.
Outbreak	An epidemic limited to localised increase in the incidence of the disease.
Outbreak definition	Two or more cases of diarrhoea and/or vomiting in a 24-hour period.
Standard precautions	Standard procedures that apply to people regardless of their perceived infectious risk. These precautions include: hand hygiene, use of personal protective equipment, aseptic technique, appropriate reprocessing of equipment and instruments and environmental controls such as cleaning, waste, sharps and laundry management.
Transmission-based precautions	Precautions required when standard precautions may not be sufficient to prevent transmission of infectious agents. Transmission-based precautions are tailored to specific infectious agent concerned and may include measures to prevent airborne, droplet and/or contact transmission.

4. Roles and Responsibilities

Healthcare workers may identify and notify a suspected outbreak.

The healthcare worker's role in an outbreak is to practice standard precautions, including rigorous adherence to 5 Moments of Hand Hygiene and environmental cleaning protocols and appropriate use of personal protective equipment; also, the implementation of relevant transmission-based precautions, including isolation and cohorting.

The designated outbreak management coordinator role is to ensure the Outbreak Management Action Plan is implemented (checklist and related documents) is filled out through observation and verification with staff. This role may be the local infection control clinical nurse (CN) or the Nurse Unit Manager (NUM) of the affected/unit and is dependent on service provision available in the healthcare facility. However, any member of the outbreak management team can be designated. The Regional Infection Prevention role is to provide support and advice relevant to the outbreak.

5. Compliance

Evaluation, audit and feedback processes are to be in place regionally to monitor compliance with this management action plan. WACHS staff are reminded that compliance with all policies is mandatory.

6. Records Management

The Outbreak Management Action Plan – Gastroenteritis and related documents are to be stored as per WACHS corporate records must be stored in the approved Electronic Documents and Records Management System. [Records Management Policy](#).

7. Evaluation

After an outbreak a multidisciplinary or organisational evaluation should take place to review the outbreak and the lessons learnt in order to strengthen future plans. These lessons need to be shared across the organisation in order to improve outbreak management. The WACHS action plan template can be used to action quality improvement.

8. Standards

[National Safety and Quality Health Service Standards](#) (Second edition 2017) - Clinical Governance Standard, Partnering with Consumers Standard, and Preventing and Controlling Healthcare-Associated Infection Standard.

[EQulPNational Standards](#) - Corporate Systems and Safety Standard 15

9. Legislation

[Department of Health, Western Australia Public Health Act 2016](#)

10. References

1. CDN Australia 2010, [Guidelines for the public health management of gastroenteritis outbreaks due to norovirus or suspected viral agents in Australia](#).
2. Centers for Disease Control and Prevention Guidelines MMWR. Updated: Norovirus outbreak management and disease prevention guidelines Vol. 60/No. 3 March 4 2011.
3. Healthcare Infection Society. (2012) [Guidelines for the management of norovirus outbreaks in acute and community health and social care settings](#).
4. HICPAC et al. 2011 [Guideline for the prevention and control of norovirus gastroenteritis outbreaks in healthcare settings](#).
5. NHMRC (2010) [Australian Guidelines Infection Prevention and Control](#).
6. WACHS –South West Infection Prevention Outbreak Management plan 2016.

11. Related Policy Documents

WACHS [Specimen Collection \(including Phlebotomy\) and Pathology Results – WACHS Clinical Practice Standard](#)
WACHS [Environmental Cleaning Policy](#)

12. Related WA Health System Policies

[Operational Directive 0465/13 Guidelines for Prevention and Management of Gastroenteritis Outbreaks in Residential Care](#)

13. Policy Framework

[Public Health Policy Framework](#)

14. Appendices

Appendix 1: [Gastroenteritis Management Action Plan \(Editable version\)](#)


This document can be made available in alternative formats on request for a person with a disability

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Version:	1.00		

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Appendix 1 - Outbreak Management Plan - Gastroenteritis

< Insert Region >

Outbreak Management Team 		
District Manager and Operations Manager	< Insert name >	< Insert number >
Nurse Unit Manager / Outbreak Coordinator	< Insert name >	< Insert number >
Local Infection Control CN / Portfolio holder	< Insert name >	< Insert number >
Hotel/Support Services Coordinator	< Insert name >	< Insert number >
Regional Infection Prevention and Control < Insert region >	< Insert name >	< Insert number >
Public Health Unit (PHU) < Insert region >	< Insert Public Health Nurse name > < Insert Public Health Physician name >	< Insert number > < Insert number >


Additional team members can be included. Develop an **Outbreak Management Team** and send all correspondence to this core group.


Disease Specific Information - Gastroenteritis		
Case definition	Two or more cases of diarrhoea and/or vomiting in a 24-hour period.	Outbreak management to commence
Transmission	Via contact (and droplet in the case of norovirus)	Includes Surgical mask in PPE
Incubation period	12 to 48 hours	Maximum viral shedding 24-72 hours
<p>Always consider a gastroenteritis outbreak to be Norovirus therefore carrying out droplet precautions using a surgical mask (until specimen results are confirmed), specifically if patients are vomiting.</p>		

In the absence of clinical laboratory diagnostic or in case of delay in obtaining laboratory results, use **Kaplan's criteria**:


1. Vomiting and more than half of the symptomatic cases.
2. Mean (or median) incubation period of 24 to 48 hours.
3. Mean (or median) duration of illness of 12 to 60 hours.
4. No bacterial pathogen isolated in stool culture.

WACHS Outbreak Management Action Plan - Gastroenteritis Procedure


Action	Complete	Comment
Notification / Communication 		
When: If you suspect there is an outbreak or when there are two or more cases		
Notify WACHS - < Insert region > Infection Prevention and Control by telephone and follow-up email with details (within 1 to 2 hours) as soon as is possible.	<input type="checkbox"/> Yes	< Insert comments >
Notify the WACHS - < Insert region > Public Health via telephone or email (within one to two hours) asap.	<input type="checkbox"/> Yes	< Insert comments >
Notify Communicable Disease Control directorate, DoH. Complete Initial Notification Form and send to Public Health Unit / Ozfoodnet via email within 24hrs.	<input type="checkbox"/> Yes	< Insert comments >
Notify environmental cleaning manager / supervisor	<input type="checkbox"/> Yes	< Insert comments >
Discuss with the patient, family and visitors	<input type="checkbox"/> Yes	< Insert comments >
Display gastroenteritis alert notices at the entrance to the hospital and signage placed at entrance to the affected ward	<input type="checkbox"/> Yes	< Insert comments >
Daily team meetings and update report email to outbreak management team	<input type="checkbox"/> Yes	< Insert comments >
Notify agencies providing contracted staff (food, laundry, co-located healthcare facilities) as appropriate.	<input type="checkbox"/> Yes	< Insert comments >
Complete <i>Daily / Final cumulative case summary form</i> , using information for your <i>Case list</i> forms. Faxing or emailing this summary to your local PHU daily, including weekends. Final report sent when outbreak is over.	Key Point	
NAME:	SIGNATURE:	DATE:
		< Insert date >

Action	Complete	Comment
Transmission-based precautions -patient management 		
When: Immediately place a suspected or known case into transmission-based precautions! Contact and droplet		
Place patient in a single room with designated toilet/bathroom facilities	<input type="checkbox"/> Yes	< Insert comment >
Place door signs (contact and droplet) on patient door.	<input type="checkbox"/> Yes	< Insert comment >
Patient cared for under transmission-based precautions - contact (long-sleeved fluid resistant gown and gloves,) eye protection or face shield if there is anticipated risk of splashes.	<input type="checkbox"/> Yes	< Insert comment >
Patient cared for under transmission-based precautions - droplet (surgical mask)	<input type="checkbox"/> Yes	< Insert comment >
Patient cared for under transmission-based precautions - protective eyewear	<input type="checkbox"/> Yes	< Insert comment >
Strict hand hygiene is carried out using soap and water where possible (and 5 Moments for Hand Hygiene).	<input type="checkbox"/> Yes	< Insert comment >
All staff review SAFE removal of personal protective equipment (staff observe each other)	<input type="checkbox"/> Yes	< Insert comment >
The patient has been instructed or assisted to wash their hands, before and after each meal, after toileting and after any episode of vomiting or diarrhoea.	<input type="checkbox"/> Yes	< Insert comment >
The patient has had restrictions and infection control requirements explain to them and their family.	<input type="checkbox"/> Yes	< Insert comment >
NAME:	SIGNATURE:	DATE: < Insert date >


WACHS Outbreak Management Action Plan - Gastroenteritis Procedure

Action		Complete	Comment
Transmission-based precautions – operational 			
When: Immediately			
The supply of PPE is available and accessible to staff at all times.		<input type="checkbox"/> Yes	< Insert comment >
Transmission based precautions can be removed when patient has been asymptomatic for 48 hours with the confirmation by infection control (dependent on outbreak circumstances).		<input type="checkbox"/> Yes	< Insert comment >
Do not transfer patients to another area / HCF / RCF in an outbreak situation, discharge home (if possible).		<input type="checkbox"/> Yes	< Insert comment >
Restrict contact between infected and unaffected patients until at least 48 hours after the infected patient's last episode of vomiting or diarrhoea.		<input type="checkbox"/> Yes	< Insert comment >
Allocate separate toilet facilities for infected patients and non-infected patients when shared facilities are being used (cohorting of patients may be necessary dependent on HCF room design/availability).		<input type="checkbox"/> Yes	< Insert comment >
Consider the closure of wards to new admissions or transfers as a measure to attenuate the magnitude of an outbreak of gastroenteritis. The threshold for ward closure varies and depends on risk assessments by infection prevention personnel and facility leadership.		Key point	
Consider longer periods of isolation or cohorting precautions for complex medical patients as they can experience protracted episodes of diarrhoea and prolonged viral shedding. Longer periods of isolation are based on clinical judgement.		Key point	
An outbreak is declared over - at least 48 hours after the resolution of vomiting and/or diarrhoea in the last known case. (See key point above.)		<input type="checkbox"/> Yes	< Insert comment >
NAME:	SIGNATURE:	DATE:	< Insert date >

WACHS Outbreak Management Action Plan - Gastroenteritis Procedure

Action		Complete	Comment
Case Management 			
Complete Case List form to record the ALL details for each individual case.		<input type="checkbox"/> Yes	< Insert comment >
Use separate forms for patients and staff.		<input type="checkbox"/> Yes	< Insert comment >
Details were typed in (staff) – or patients sticker used (spelling of names, date of birth etc. are required for specimen results hand written as difficult to read)		<input type="checkbox"/> Yes	< Insert comment >
Staff who develop symptoms at work went home immediately and did not return to work until at least 48 hours after their last episode of symptoms – vomiting, nausea, abdominal pain, or diarrhoea.		<input type="checkbox"/> Yes	< Insert comment >
Staff who develop symptoms: took a specimen jar home with them		<input type="checkbox"/> Yes	< Insert comment >
Recuperating staff were advised that they may continue to shed the infectious organism for several weeks after their symptoms have resolved. They must continue to observe meticulous personal hygiene and hand hygiene.		<input type="checkbox"/> Yes	< Insert comment >
List each case once only. IF symptoms resolve and then recur after a few days, do not re-enter that case, but amend the 'duration of illness' column only.		Key point	
Consider longer periods of isolation for complex medical patients as they can experience protracted episodes of diarrhoea and prolonged viral shedding		Key point	
NAME:	SIGNATURE:	DATE:	< Insert date >

WACHS Outbreak Management Action Plan - Gastroenteritis Procedure

Action	Complete	Comment
Specimen Collection  refer to the WACHS Specimen Collection and Pathology Clinical Practice Standard		
Observe Standard Precautions and wear PPE.		
Stool specimen was collected as soon as possible from patients / staff (liquid or semi-solid).	<input type="checkbox"/> Yes	< Insert comment >
Vomit specimen was collected from the patient / staff	<input type="checkbox"/> Yes	< Insert comment >
Complete each pathology request form - IMPORTANT request: MC & S + viral studies (write 'outbreak')	<input type="checkbox"/> Yes	< Insert comment >
Check the specimen is labelled correctly	<input type="checkbox"/> Yes	< Insert comment >
Store specimens appropriately	<input type="checkbox"/> Yes	< Insert comment >
Set up Staff packs - Specimen jar, laboratory form (inside plastic laboratory hazard alert bag)	<input type="checkbox"/> Yes	< Insert comment >
Fax a copy of pathology results (regardless of results) to your region's PHU as soon as you receive it.	<input type="checkbox"/> Yes	< Insert comment >
Alert the laboratory as early as possible that specimens will be arriving. Consider courier to laboratory and set a results communication process.	Key point	
Note: When a specimen is sent to the laboratory it will go to (both viral and microbiology departments) as a split specimen, therefore will take several days for results.	Key point	
NAME:	SIGNATURE:	DATE:
		< Insert date >

Kaplan's criteria:


1. Vomiting and more than half of the symptomatic cases **and**
2. Mean (or median) incubation period of 24 to 48 hours.
3. Mean (or median) duration of illness of 12 to 60 hours **and**
4. No bacterial pathogen isolated in stool culture.

(Centers for Disease Control and Prevention (CDC) norovirus fact sheet 2011)


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WACHS Outbreak Management Action Plan - Gastroenteritis Procedure

Action		Complete	Comment
Staff Management 			
All staff are instructed on correct donning and safe removal of PPE use pictorial tool scroll down to B1.2.7		<input type="checkbox"/> Yes	< Insert comment >
Dedicated staff cared for symptomatic patients.		<input type="checkbox"/> Yes	< Insert comment >
Staff movement is restricted between affected and unaffected areas / ward.		<input type="checkbox"/> Yes	< Insert comment >
All staff are given a handout sheet on gastroenteritis or norovirus (most common cause of gastroenteritis).		<input type="checkbox"/> Yes	< Insert comment >
A outbreak communication book was used as a daily / per shift information tool		<input type="checkbox"/> Yes	< Insert comment >
All staff of the gastroenteritis outbreak and explain their responsibility for implementing and adhering to infection prevention and control measures.		<input type="checkbox"/> Yes	< Insert comment >
Staff who care for infected patients or who clean the environment of infected patients should not prepare food or feed unaffected patients.		Key point	
Staff should not consume food within immediate areas where care of infected patients occurs.		Key point	
Any staff who have been symptomatic and have returned to work (post 48 hours symptom-free) will have a level of immunity and can care for symptomatic patients.		Key point	
Affected kitchen/food handling staff -food safety standards must be adhered to.		Key point	
NAME:	SIGNATURE:	DATE:	< Insert date >

WACHS Outbreak Management Action Plan - Gastroenteritis Procedure

Action	Complete	Comment	
Environmental and equipment management (as per WACHS Environmental Cleaning Policy) 			
All staff are instructed on correct donning and safe removal of PPE (cleaning staff) use pictorial tool scroll down to B1.2.7	<input type="checkbox"/> Yes	< Insert comment >	
1000ppm of available chlorine – concentration is used?	<input type="checkbox"/> Yes	< Insert comment >	
Commence twice daily cleaning with one or two step process (detergent and available chlorine) for affected rooms. (There may be increased cleaning frequency for the toilet ensuite.)	<input type="checkbox"/> Yes	< Insert comment >	
Terminal cleaning of room- commence cleaning with one or two step process (detergent and available chlorine) for all affected rooms.	<input type="checkbox"/> Yes	< Insert comment >	
After the outbreak is declared over. A full terminal clean of all rooms / corridor areas in the affected ward/unit using detergent and available chlorine is completed.	<input type="checkbox"/> Yes	< Insert comment >	
Dedicate items and equipment solely for use by symptomatic patients where possible.	<input type="checkbox"/> Yes	< Insert comment >	
If unavoidable clean and disinfect shared equipment thoroughly - using recommended disinfectant before re-use by another patient.	<input type="checkbox"/> Yes	< Insert comment >	
Placed used linen from infected patients directly into a linen container then tie at the point of use. (Inside the patient room). Do not agitate linen as this causes aerosol spread of the infectious microorganisms.	<input type="checkbox"/> Yes	< Insert comment >	
If carpets are soiled, do not vacuum (has potential to recirculate viruses) but clean with detergent and warm water (wearing PPE) and then steam clean.	Key point		
Crockery, cutlery and food trays are cleaned in the normal manner using dishwasher hot water and detergent. Not additional requirements are necessary.	Key point		
Note: Environmental cleaning with the correct concentration of chlorine is critical in an outbreak	Key point		
NAME:	SIGNATURE:	DATE:	< Insert date >

Action		Complete	Comment
Visitor Management 			
Restrict visitors during an outbreak - encourage them to keep contact by telephoning the patient.		<input type="checkbox"/> Yes	< Insert comment >
Exclude visitors who have symptoms of vomiting and diarrhoea until at least 48 hours after their last episode.		<input type="checkbox"/> Yes	< Insert comment >
Discourage visiting by children and immunocompromised individuals.		<input type="checkbox"/> Yes	< Insert comment >
If essential to visit: Visitors are instructed to preform hand hygiene - on arrival and leaving the Hospital AND entry and exit to patient room.		<input type="checkbox"/> Yes	< Insert comment >
All visitors are instructed on correct donning and safe removal of PPE -use pictorial tool		<input type="checkbox"/> Yes	< Insert comment >
Explain the restrictions and infection control requirements to patients and visitors.		<input type="checkbox"/> Yes	< Insert comment >
NAME:	SIGNATURE:	DATE:	< Insert date >

Document links:

1. [Initial notification form, Daily notification form, Final Summary notification form](#)
2. National door signs - [contact](#) and [droplet](#)
3. [Case management line listing form](#)
4. [Norovirus fact sheet](#) (DoH)
5. [Gastroenteritis fact sheet](#) (DoH)
6. [Donning and doffing PPE - Pictorial tool scroll down to B1.2.7](#)
7. [Daily Situation report \(sitrep\) template used for outbreak updates](#)
8. [WACHS Quality Action Plan template](#)