The Sydney children's Hospitals Network
care, advocacy, research, education

GASTROENTERITIS: INFECTION CONTROL AND MANAGEMENT

PRACTICE GUIDELINE

DOCUMENT SUMMARY/KEY POINTS

- Gastroenteritis is a common acute intestinal communicable infection which causes diarrhoea and/or vomiting, sometimes with fever. It is usually viral, but sometimes bacterial or parasitic.
- Contact precautions are an effective way to terminate the transmission of the disease. **Hand hygiene is important to stop the spread to the healthcare worker**, other patients and visitors. **Gloves must be worn when handling blood and bodily fluids**.
- When Norovirus infection is suspected on clinical/epidemiological grounds (page 7), a surgical mask and eye protection (droplet precautions) should be worn when caring for vomiting patients (refer to SCHN Norovirus: Infection Control and Management Practice Guideline).
- Cohort and isolate all symptomatic patients and alert Infection Prevention and Control (IPC). IPC will notify the Public Health Unit if there are ≥ 2 patients on a ward who have developed gastroenteritis after admission.
- Patients with gastroenteritis should remain in the ward most appropriate to their medical condition where they can be best cared for. Patients with gastroenteritis must not share a room or bathroom with patients who do not have gastroenteritis.
- Family, visitors and staff with gastroenteritis should leave the ward immediately and not return to work/ward until 48 hours after their last episode of vomiting or diarrhoea.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1st August 2023	**Review Period:** 3 years
Team Leader:	Clinical Nurse Consultant	**Area/Dept:** Infection Control SCH & CHW

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.
NSW GOVERNMENT

CHANGE SUMMARY

- Site-based IPC gastroenteritis guidelines are replaced by this SCHN version.
- Changes made throughout the document to merge site-based information and links and references updated. Changes made to de-isolation criteria.
- Moved common causes of gastroenteritis into an attached staff information sheet

READ ACKNOWLEDGEMENT

- All Medical and Nursing staff working in clinical areas should read and acknowledge this document.

This guideline is to be read in conjunction with:

- SCHN Infection Prevention and Control - Isolation and Transmission Based Precautions Practice Guideline
- SCHN Norovirus – Infection Control and Management Practice Guideline
- SCHN Clostridium Difficile (Toxogenic) - Infection Control Management Policy
- NSW Health Gastroenteritis in an institution control guideline - Control guidelines
- NSW Health Gastro Pack for Hospitals and Aged Care Facilities.
- Notification of Infectious Diseases under the Public Health Act 1991 (NSW Health Information Bulletin IB2013_010)
- Staff information sheet on common causes of gastroenteritis

TABLE OF CONTENTS

1 Introduction 4
2 Definitions and diagnosis of gastroenteritis 4
3 Mode of Transmission 5
4 Command and Control 5
5 Management of Gastroenteritis 6
6 Prevention 6
7 Infection Control Precautions 6
Contact Precautions 6
Isolation 7
Room Placement 7
Patient Activity Outside Room (until 48hrs after cessation of symptoms) 7
8 Personal Protective Equipment (PPE) 7
Staff or Parents/Carers 7
Patient care equipment 8
9 Cleaning and Linen 8
10 Parents and Carers of admitted patients 8
Family and Visitors 8
Parents and carers of children admitted with potential or proven infectious diarrhoea +/- vomiting 8
Parents and carers who have gastroenteritis symptoms 9
11 Hospital Volunteers 9
12 Eating Utensils 10
13 Pathology Specimens 10
Stool 10
Other Pathology Specimens – Blood Collection 10
14 Waste Management 10
15 General Maintenance 11
16 Room/bay Cleaning 11
17 Discharge of Patient from Hospital 11
18 Staff Management 11
19 Information and Education 12
Staff 12
Parent/Carer fact sheets 12
20 References 12

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.

1 Introduction

Gastroenteritis is a common acute intestinal communicable infection which causes vomiting, diarrhoea and fever. There are many causes of gastroenteritis worldwide. It is usually viral, but sometimes bacterial or parasitic. Community outbreaks are sporadic and seasonal. [1]

Refer to the staff information sheet for common causes of gastroenteritis (viral, bacterial and protozoan), incubation periods and other relevant information.

2 Definitions and diagnosis of gastroenteritis

1. **Case**: The diagnosis of Gastroenteritis is primarily a clinical one, based on the presence of vomiting and/or diarrhoea with no other evident cause. Patient isolation should not await the results of laboratory testing, and in many cases no clear pathogen will be identified.
2. **Probable nosocomial** (hospital-acquired infection) is defined when the onset of symptoms is ≥ 48hrs after hospitalisation
3. **Possible nosocomial** (hospital-acquired infection) is defined when the onset of symptoms is ≤ 48hrs after hospitalisation
4. **Linked:** A case is considered *linked* to an index case if the onset is ≤ 48hrs after exposure to the index case
5. **Exposure:** An exposure is considered to have occurred when:
   - Sharing a room/bay while the index case has vomiting or diarrhoea or < 48hrs after the last vomit/diarrhoea
   - Sharing a common healthcare staff (nurse or medical team) while the index case had vomiting or diarrhoea or < 48hrs after the last vomit/diarrhoea
   - Known or suspected direct contact (e.g. at school or play room or social contact)
6. **Cluster**: A cluster of nosocomial gastroenteritis cases is suspected to exist when:
   - Two or more linked cases
   - A cluster is confirmed if the same pathogen is detected in >50% of symptomatic cases
   - A cluster of cases should prompt a response to minimise spread (see section 4)
7. **Outbreak**: suspected if
   - 5 or more possible or probable nosocomial cases that are linked to each other
   - 6 or more possible or probable nosocomial cases that occur on the same ward with onset within 48hrs of each other
   - An outbreak is **confirmed** if the same pathogen is detected in >50% of symptomatic cases
   - An outbreak of cases should prompt an immediate response (see section 4)

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.
NSW GOVERNMENT

3 Mode of Transmission

Organisms are transmitted primarily through the faecal-oral route, either by consumption of faecal contaminated food or water or by direct person-to-person spread. Environmental and fomite contamination may also act as a source of infection, contaminating surfaces or entering the oral mucosa and being swallowed. In the case of norovirus, aerosolised virus particles can be swallowed by an exposed person. As such, norovirus has special isolation requirements compared with other causes of gastroenteritis (refer to SCHN Norovirus – Infection Control and Management Practice Guideline).

4 Command and Control

Cases: Responsibility for implementation of this practice guideline is the direct responsibility of appropriate clinical line managers caring for affected patients.

- The **clinical line managers will consult with the Infection Prevention and Control (IPC) Team** regarding appropriate patient placement and infection control procedures.
- If there is no policy on a particular issue or the policy needs updating then there needs to be further discussion between clinical line managers, IPC, microbiology and the relevant site Director of Clinical Operations (DCO) to develop a consensus agreement based on best evidence. If a dispute arises about policy it is to be referred to the Executive DCO and the Chief Executive (CE) for resolution.

Cases are not mandated as a 'reportable infection' to Public Health Units (PHU) except:

- **Cluster of cases**: **The Microbiologist or IPC Practitioner will notify the site DCO** of identification of any known clusters of hospital-onset gastroenteritis. The site DCO will in turn notify the Executive DCO and CE.

  A report on management of any new gastroenteritis clusters will be made to the next IPC Committee meeting. The IPC Committee reports to the SCHN Quality Safety Committee where relevant information is tabled.
- **Suspected or confirmed Outbreak: The Microbiologist or IPC Practitioner will notify the site DCO.** The site DCO will in turn notify the Executive DCO and CE. An urgent outbreak management meeting will be arranged to coordinate a response which includes a ward site visit to identify possible breakdowns in standard measures and to reinforce standard and additional IPC measures. Following this assessment, extraordinary measures may be invoked.
- **Public Health Unit (PHU) notification:** In the event of 2 or more cases of hospital-onset gastroenteritis on a single ward or 2 or more related cases of food-borne gastroenteritis within an institution. Foodborne transmission is not a common cause of transmission within the hospital but should be suspected if the onset of symptoms amongst multiple children, parents, or staff is abrupt and near simultaneous, especially if multiple wards are affected simultaneously. PHU Notification is the responsibility of **the Infection Control team**.

For more information, refer to the following:

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.
NSW GOVERNMENT

- **Notification of Infectious Diseases under the Public Health Act 1991** (NSW Health Information Bulletin IB2013_010)
- Gastroenteritis in an institution control guideline - Control guidelines (nsw.gov.au) 2019

A Reportable Incident Brief (RIB) will be sent to NSW Department of Health on any potential media interests or problems. This is currently the responsibility of the Executive Assistant to the Chief Executive.

5 Management of Gastroenteritis

- Gastroenteritis in an institution control guideline - Control guidelines (nsw.gov.au)
- Gastro Pack for Hospitals and Aged Care Facilities.

6 Prevention

Prevention of gastroenteritis is primarily by the provision of safe food and water, and high levels of hand hygiene.

An effective rotavirus vaccine is available.

Clostridium difficile is prevented by avoiding unnecessary, or excessively prolonged, broad spectrum antibiotic use.

7 Infection Control Precautions

Contact Precautions

- Contact precautions are an effective way to terminate the transmission of the disease and must be maintained until the patient has been asymptomatic for 48 hours.
- **Hand hygiene is essential** to stop the spread to the healthcare worker, other patients and visitors**. Use soap and water or alcoholic hand rub. If there is visible soiling, *hand washing* with soap and water is required**.
- **Gloves** must be worn when handling body fluids or blood.
- The patient care environment can become contaminated by infectious viruses, bacteria and bacterial spores. Environmental transmission can be minimised by leaving case notes/computers/laptops and other extraneous items outside the patient's room.

If there is suspicion of norovirus infection surgical masks should be worn when caring for vomiting patients or cleaning up vomitus or profuse diarrhoea. The specific Norovirus: Infection Control and Management Policy should be consulted.

The Sydney children's Hospitals Network
care, advocacy, research, education

Isolation

- Cohort and isolate all symptomatic patients (parents and carers with symptoms should also be isolated) Refer to SCHN Infection Prevention and Control – Isolation and Transmission Based Precautions Practice Guideline.
- Alert the hospital Infection Prevention and Control team if there are any patients with symptoms of gastroenteritis.

Room Placement

Patients with Gastroenteritis should remain in the ward most appropriate to their medical condition where they can be best cared for (Refer to SCHN IPC - Isolation and Transmission Based Precautions PG for further information regarding isolation and precaution requirements). Patients with gastroenteritis must not share a room or bathroom with patients who do not have gastroenteritis. The patient's room must have a staff hand wash basin. Adequate supplies of gloves and alcohol 'hand rub' are required inside and outside the room.

If a single room is not available, 2 or more children with gastroenteritis may be cohorted provided that there is no other indication for isolation and several other conditions are met. This requires consultation with the infection control nurse/practitioner.

Patient Activity Outside Room (until 48hrs after cessation of symptoms)

- The child cannot visit the common food outlet areas.
- The child cannot visit the Starlight Room.
- The child cannot visit Ronald McDonald House.
- The child cannot attend the schoolroom.
- The child cannot visit other inpatients.
- Activities and school can be organised in the room.
- All other activities must be negotiated with Infection Control.

8 Personal Protective Equipment (PPE)

Staff or Parents/Carers

- Gloves must be worn when handling body fluids or blood.
- **Impervious (plastic) aprons/gowns** must be worn if contact with the patient or the patient's surroundings
- Wear **long sleeved impervious gowns** if extensive body contact or contamination of arms is possible (e.g. when moving or holding symptomatic patient or uncontrolled vomiting)
- If there is suspicion of norovirus infection, surgical masks should be worn when caring for vomiting patients or cleaning up vomitus or faeces.

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.
NSW GOVERNMENT

Patient care equipment

- Must be dedicated for the **sole purpose** of the patient.
- The patient should have his/her own equipment such as stethoscopes, sphygmomanometers, thermometers and pans.

9 Cleaning and Linen

- Gloves should be worn by people cleaning areas contaminated by faeces or vomitus.
- Cleaning is performed as per NSW Health cleaning policy.
- All staff must perform hand hygiene immediately prior to accessing the ward's clean linen dispensary to prevent contaminating clean linen.
- If linen is removed from the clean linen trolley it must not be replaced back onto the trolley but be placed into the used linen skip.
- PPE should be worn by staff when handling soiled linen from an infected patient, regardless of the child being in the bed or not.
- Used linen, whether visibly soiled or not, should not be shaken.
- Used linen should be bagged and tied at the point of generation. Care needs to be taken not to overfull the linen skip. It should not be filled more than ¾ full so that it can be secured safely.
- The laundering of used linen should be consistent with Australian Standard AS 4146: Laundry Practice.

10 Parents and Carers of admitted patients

Family and Visitors

- Sensible management of family and visitors can assist in controlling outbreaks.
- Visitors should be restricted to immediate adult family members. Family and visitors should be instructed on hand washing techniques.
- Children and immunocompromised individuals should be discouraged from visiting a child with gastroenteritis.
- Family and visitors with a history of vomiting and diarrhoea at home should not visit patients until at least 48 after their last episode of vomiting or diarrhoea[4].

Parents and carers of children admitted with potential or proven infectious diarrhoea +/- vomiting

- Must not use shared facilities in the ward for food preparation or shared recreational areas in the ward or throughout the hospital even if they themselves are asymptomatic.

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.
NSW GOVERNMENT

  - If the parent needs to **purchase meals for themselves**, the parent can go to the providers in the hospital. They should either eat in an area isolated from people (e.g. the outdoor areas), or eat in their child's room.
  - If the parent needs food, beverages or feeding bottles from the ward kitchen **for their child**, they must request nurse assistance.
- Parents must not sleep in the parent hostel or parent rooms provided on the ward. If staying in the hospital with their child, they must sleep in their child's room.
  - Any linen required by the patient, or the parent must be provided by the nursing staff. Parents of symptomatic children are **not to access** the clean linen dispensary on the ward.
- Parents must use the toilet and bathroom facilities in the child's isolation room.

Parents and carers who have gastroenteritis symptoms

- Should be advised to stay home if possible.
- If they cannot stay home they must not use shared facilities for food preparation or shared recreational areas until asymptomatic for 48 hours.
- Must wash hands well with antiseptic hand-wash and water frequently, particularly after vomiting, after using the toilet, on leaving the patient's room, and before food or drink preparation.
- When they leave the child's room they must go straight home and not used shared Hospital facilities.
- Any linen required by the patient, or the parent must be provided by the nursing staff. Parents of symptomatic children **are not to access** the clean linen dispensary on the ward.
- If there is a need to purchase meals, after the parents' acute symptoms abate, the parent must liaise with the ward Nursing Unit Manager and After Hours Nurse Manager so that they can be assisted with this task while waiting for the 48 hours post resolution of symptoms to be attained.

11 Hospital Volunteers

- General visiting by hospital volunteers must be postponed until the patient or the symptomatic parent/carer has been symptom free for 48 hours.
- There are some circumstances in which volunteer assistance is acceptable. In this case the volunteer needs to comply with the same requirements for hand hygiene and PPE usage as staff.
- Ward Grandparent Volunteers can continue to work with their symptomatic child but need to comply with the same requirements for hand hygiene and PPE usage as parents.
- Book Bunker lending (CHW) and visits to Starlight Express Room must be postponed until the child or the symptomatic parent/carer has been symptom free for 48 hours.

This Policy/Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy/Procedure is mandatory.
NSW GOVERNMENT

- Visitors organised by the Public Relations Department to the wards must not visit a symptomatic patient. This also must be postponed until the patient, or the symptomatic parent/carer has been symptom free for 48 hours.

12 Eating Utensils

Meal trays and eating utensils/plates and cups are to be collected from the room by staff with care. They can be placed in the Food Services trolley to be taken down to the Food Services department so they can be washed as per Food Services policy.

After carefully placing the used meal tray on the trolley staff need to be perform hand hygiene in case of viral contaminants on the tray.

13 Pathology Specimens

Stool

A medical officer needs to order testing of a stool – faeces culture and gastrointestinal pathogen PCR testing. A stool specimen needs to be collected and placed into the container with the lid secured and then into a plastic biohazard specimen bag for transport.

Staff need to be mindful that not all virus or bacterial sources of diarrhoea are able to be tested for. Symptomatic patients need to be treated as infectious regardless of the result.

Hand Hygiene is important after handling the faeces specimen containers or plastic bag.

Other Pathology Specimens – Blood Collection

- Pathology personnel must comply with Contact Precautions when entering and leaving the room.
- Seal specimen receptacles correctly and label accurately.
- Place specimen and pathology form into a plastic biohazard specimen bag for transport.

14 Waste Management

- Toilets where body waste is being disposed should have the lid of the toilet closed before flushing to stop aerosols being generated.
- General waste from a patient's room who has norovirus is to be placed appropriately into the general waste receptacle. It is not to be over filled. When there is the requirement for a larger general waste bin to cope with the use of disposable gowns, contact the cleaning services supervisor so that a size appropriate general waste bin can be obtained. After general working hours if the bin is ¾ full contact the after-hours cleaning supervisor so that appropriate action can be taken.

15 General Maintenance

- Routine maintenance needs to be postponed until the patient has been asymptomatic for 48 hours.
- Urgent maintenance can proceed with appropriate PPE wear and hand hygiene while the patient is in the acute stage of the illness.
- Contact the Infection Prevention & Control team for advice as required.

16 Room/bay Cleaning

Regular and thorough **environmental cleaning and disinfection** including **terminal/infectious cleaning** is required on discharge of symptomatic patients. On patient discharge from room/bay, a terminal/infectious clean should be performed and consist of the two step clean process:

- Disposal of all disposable items (e.g. toilet paper, toilet brush)
- Detergent cleaning
- This should be followed by bleach disinfection of all hard, non-porous surfaces including ensuite bathroom facilities
- For advice on cleaning porous surfaces or soft furnishings, contact Infection Prevention and Control.

17 Discharge of Patient from Hospital

Discussion should take place before discharge to ensure the patient and family are fully informed about gastroenteritis. The patient should be requested to alert staff of gastroenteritis status if admitted to a health care facility in the near future. Children cannot be immediately discharged to Ronald MacDonald House or Bear Cottage unless 48 hours have elapsed since last episode of diarrhoea or vomiting.

18 Staff Management

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

Staff with gastrointestinal symptoms should leave work immediately and not return to work until 48 hours after their last episode of vomiting or diarrhoea[4]. Those affected staff should seek medical advice immediately if required.

Food handlers should be excluded from food preparation until at least 48 hours after the symptoms have stopped[4].

Recuperating staff may shed viruses 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[4].

NUMs should ensure non-essential staff should not be allowed to enter the patient care area of infected patients in order to prevent unnecessary exposure and to stop further spread of the disease[1].

19 Information and Education

Staff

- Gastroenteritis in an institution control guideline - Control guidelines (nsw.gov.au)
- GASTRO PACK (nsw.gov.au)
- Infection Prevention and Control will provide information and education on request.

Parent/Carer fact sheets

- **SCHN Gastroenteritis in Children:** https://www.schn.health.nsw.gov.au/files/factsheets/gastroenteritis_-en.pdf
- **Viral Gastroenteritis:**
  - NSW Health Viral gastroenteritis fact sheet
  - NSW Health Norovirus fact sheet
  - NSW Health Viral gastroenteritis updates and other links

20 References

1. NSW Health Gastroenteritis in an institution control guideline (2019) Gastroenteritis in an institution control guideline - Control guidelines (nsw.gov.au) (accessed 04/07/23)
2. American Academy of Paediatrics. Gastroenteritis. In: Kimberlin DW, Brady MT, Jackson MA, Long SS ed. *2018 Red Book: Report of the Committee on Infectious Diseases.* 31st ed. Itasca, IL: American Academy of Paediatrics; 2018 (various chps)
3. Australian Commission on Safety and Quality in Healthcare "Australian Guidelines for the Prevention and Control of Infection in Healthcare. NHMRC 2019. https://www.nhmrc.gov.au/health-advice/public-health/preventing-infection (accessed 04/07/23)

Copyright notice and disclaimer:

The use of this document outside Sydney Children's Hospitals Network (SCHN), or its reproduction in whole or in part, is subject to acknowledgement that it is the property of SCHN. SCHN has done everything practicable to make this document accurate, up-to-date and in accordance with accepted legislation and standards at the date of publication. SCHN is not responsible for consequences arising from the use of this document outside SCHN. A current version of this document is only available electronically from the Hospitals. If this document is printed, it is only valid to the date of printing.