Management of a Suspected Outbreak of Diarrhoea and Vomiting (D&V) including Norovirus			
Statement of Intent	To provide clear Infection Prevention & Control procedure for the management of suspected outbreak of diarrhoea and vomiting including Norovirus		
Document number	IPC12	**Issue number**	3
Author	Infection Prevention and Control Team (with thanks to Great Western Hospitals Foundation Trust)		
Owner	Infection Prevention and Control Team		
Approved by	Infection Control Team	**Date approved**	N/A
Ratified by	CSMT	**Date ratified**	March 2017
Review date	10/01/2018	**Expiry date**	31/03/2018
Related policies	Infection Prevention and Control Policy and all associated procedures		
Applies to	SBC Children, Families and Community Health Service		
Care Quality Commission Outcomes	Regulation 12 (Outcome 8) Cleanliness and infection control		
Equality & Diversity	SBC is committed to promoting equality in all its responsibilities – as a provider of services, as a partner in the local economy and as an employer. This policy will contribute to ensuring that all clients, potential clients and employees are treated fairly and respectfully with regard to the protected characteristics of age, disability, gender reassignment, marriage or civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.		

1.0 Procedure Details

Glossary

CCDC – Consultant in Communicable Disease
HPA – Health Protection Agency
IP&C – Infection Prevention & Control

Definition

An outbreak of diarrhoea and or vomiting within a ward/home/day centre is defined in the following way:

NB Both (**a**) and (**b**) need to apply.

(a) Two or more service users who are symptomatic within a 48 hour period and symptoms include:

- Producing faeces of type 6 or 7 (Bristol Stool Chart) on two or more occasions not associated with any other obvious non-infective cause, e.g. laxative, nasogastric feeding, inflammatory bowel disease.

- Nausea or vomiting, usually projectile.

Other symptoms include:

- Abdominal pain
- Myalgia
- Headache
- Malaise
- Low grade fever

(b) Assessment by the Infection Prevention & Control Team/ Health Protection Agency suggests a high likelihood of viral Gastroenteritis being the likely cause of the outbreak.

Period of Increased Incidence

Period of increased incidence (PII) is a pragmatic approach taken when there may be diagnostic uncertainty. There is often a period of uncertainty when a small number of symptomatic service users may or may not herald a norovirus outbreak. Careful clinical assessment of the causes of vomiting and diarrhoea is important as service users may have diarrhoea and/or vomiting due to underlying pathologies.

Causes

Diarrhoea and vomiting can be caused by viruses, bacteria, and occasionally parasites. The source of these organisms may be contaminated food, water or infectious faeces and vomit. These organisms can be easily transmitted on hands, or equipment, via contaminated surfaces or by the airborne route i.e. aerosolisation of vomit in viral infections.

Diarrhoea is defined as; explosive, liquid stools (Bristol Stool Chart Type 6 or 7), with little or no warning and considered to be significant if more than one episode. (Please see Appendix 1 for Bristol Stool chart definitions)

It is important to remember that a stool specimen result that shows no bacterial growth does not exclude the possibility of a viral or parasitic infection. The clinical presentation of the patient must be taken into consideration and discussed with a microbiologist/Consultant in Communicable Disease (CCDC) or IP&C nurse if necessary and further stool sample testing can be requested.

Viral Gastroenteritis

Norovirus, commonly known as 'Winter Vomiting Virus', is one of a number of viruses capable of causing acute gastro-enteritis. It is also known as the Norwalk virus. It is small and round in form: humans are its only reservoir.

Viral Gastroenteritis usually presents with an acute onset of projectile vomiting and/or diarrhoea. The incubation period is likely to be between 24-48 hours and duration of illness is usually 12-60 hours. There may be associated headache, abdominal cramps and fever.

Case studies have suggested that Norovirus can survive for up to 12 days in the environment.

2.0 In Patient Unit /Residential Home General Procedures

- Any service users with diarrhoea and/or vomiting must be isolated immediately and a careful assessment of the cause undertaken. Ensure correct isolation sign (hand washing) is placed on side room/bedroom door. If single room isolation is not possible due to the number of patients, consider isolation bays. Contact Infection Prevention and Control Team (IP&CT) or out of hours on call manager (OCM) for advice. IP&CT or OCM will inform HPA of potential outbreak

- Any decision to close the ward/home to admissions or restrict the movement of service users and staff will be made in line with the Infection Control Policy and procedures for Ward Closure due to Transmissible Infections. Advice will be given by the IP&C team or HPA

- During a period of increased incidence (PII) IP&CT (or on call manager) must be informed and will monitor the cases of diarrhoea and vomiting and provide advice during this period. Ward/Home staff should also Inform Senior manager responsible for inpatient unit/home. IP&CT will alert appropriate managers and clinicians to the potential outbreak.

- The IP&CT (or HPA) will instigate the requirement for specimen taking from cases if appropriate. Ward/care home is responsible for ensuring specimens are collected and delivered to appropriate place for collection and delivery to laboratory

- Within the inpatient unit if viral gastroenteritis suspected, symptomatic patient should be isolated in single room immediately and the bay closed, special clean (enhanced clean) ordered and remaining patients observed for symptoms of gastroenteritis. If no further patients become symptomatic then bay can reopen after 48 hours without additional special clean (enhanced clean).

- It is the responsibility of the inpatient unit to arrange with the help desk for a Special clean of the bay following the removal of a symptomatic patient.

- **Refer to the isolation tool for choices of patients to move out of side rooms on the Inpatient unit (Appendix 2).**

- In the residential homes inform HPA and a member of the IP&CT. Outside normal working hours the HPA **and on call manager should be contacted and informed.**

- In SwICC inform the Infection Prevention and Control Team. Outside of **normal working hours the on call manager should be contacted and informed**

- The IP&CT (HPA out of hours) will provide advice regarding the management of the outbreak, and declare a ward closure. For care homes, the HPA, with support from IP&CT, will provide advice and declare a home closure. An incident report should to be completed by the **Ward/Home staff**

- Ward/Home staff to inform the doctor responsible for the affected service users.

- Ward/Home staff Inform Senior manager responsible for inpatient unit/home.

- Ward/Department/Home staff to complete outbreak information sheet (Appendix 3), stool chart and Diarrhoea care pathway (Appendix 1).

- Isolated service users should not be transferred to other wards or health care facilities (unless medically urgent and after consultation with the IP&CT). **Norovirus Checklist is also available as guidance see Appendix 4 for Inpatient unit and Appendix 8 for Residential Homes.**

- No service user transfers/discharges from the affected bay/ward/home to other Health Care facilities whilst bay/ward is closed. If an emergency admission to hospital is necessary then the receiving facility must be notified of the service user's infection status on an inter-healthcare transfer form.

- Stool specimens should be collected from each affected service user or member of staff and sent to the Microbiology Department as soon as possible. **Send samples for MC+S & *Cdiff* toxin. IP&C/ HPA will arrange for virology testing during a suspected outbreak.**

- Services users from the inpatient unit can be discharged to their homes as long as they are medically fit for discharge and do not require nursing or social care services at home

- Service users who require emergency admission to the unit/home and are suspected to have viral gastro-enteritis must be admitted into a single side room in Standard Isolation

- Fans should not be used in Isolation/residents rooms or closed wards to control the service users temperature

- Consider cohorting in a bay if isolation in a single side room is not available. Please note that only service users with the same symptoms should be cohorted together upon advice from the IP&CT (HPA out of hours).

- If there is a clinical necessity to admit a service user to a closed ward/home, an individual risk assessment needs to be completed by the clinician to determine the least risk to the service user. IP&CT should be informed.

- If service users from the affected ward/home require tests or appointments in another department risk assessment should be undertaken taking into account whether the service user has symptoms and if the procedure/test is urgent. Contact IP&CT for further advice where necessary.

- If the service user is to have a test/procedure then the receiving department must be notified in advance so that effective infection control measure can be put in place to minimise the risk of cross infection to other service users/staff.

- To limit exposure, designated members of staff should consistently care for affected patients whenever possible.

- Ensure sufficient linen and disposable gloves and aprons are available and that there are sufficient supplies of the alginate strip bags and the red plastic bags.

- PPE should be worn as per Standard Precautions protocol and discarded before leaving the isolation room/bay

- Ensure adequate supplies of soap, paper hand towels and alcohol hand gel are available.

- Wash hands with **soap and water** before and after each patient contact, after contact with infected environment and after removing gloves.

- Alcohol hand gel should be used on entry and exit to the ward /home.

- Cleaning of equipment must be carried out using detergent and water or detergent wipe followed by a Chlorine 1000ppm solution or a sporicidal wipe after each patient use. Particular attention must be given to commodes and bedpans to reduce the risk of spreading the infection.

- Notes and charts must be kept outside of the isolation rooms and doors to the isolation rooms must be kept closed at all times.

- If the ward/home is closed due to a transmissible infection, warning signs are to be posted at the entry points of the entrance points by staff

- Visiting staff as well as patients' visitors are to be advised to report to the nurse in charge of the ward/home and briefed about hand washing and any other precautions required.

- The decision to call an outbreak meeting will be the decision of the IP&CT or HPA. They will advise the service manager regarding arranging a meeting and who should attend this meeting.

- OT/Physiotherapy should continue for patients who may suffer as a result of non intervention. A risk assessment of the patients needs should be completed with the ward/home staff and visits should be made at the end of a shift where they will not be visiting other wards/homes or patients afterwards.

- Social Services should continue to assess referred patients following discussion with ward/home staff regarding any precautions required. They should visit at the end of a shift where they will not be visiting other wards or patients afterwards. Section 2 referrals should be restarted once a ward commences the 72 hour count down and asymptomatic patients should be seen.

- Medical staff/ GP's should minimise their movement to and from affected area. Adherence to strict standard precautions is essential.

- If a major outbreak of infection is identified **the HPA will convene an Outbreak Control meeting**.

- If the ward/home has been closed, advice on when the ward/home should be re-opened will be given by the IP&CT in line with norovirus guidance.

- Symptomatic members of staff should inform their direct line manager and leave work immediately. They should report to the Occupational Health Department for advice and submit a stool specimen as soon as possible. Staff should not return to work until 48 hours after last episode of symptoms.

In addition the following points are to be observed:

- Staff should wear gloves and aprons for contact with affected individual or environment.

- Visitors are not required to wear apron and gloves unless providing personal care to patients.

- Remove all uncovered food such as fruit.
- Exclude non-essential staff/personnel from the ward area.
- Caution visitors and emphasise hand hygiene.
- Visitors should not visit other patients/residents or wards/homes.
- Non-essential visitors and children should be excluded where possible.
- Relatives who are unwell or who also have diarrhoea and vomiting should not visit.
- Clean and disinfect spillages of faeces and/or vomit promptly using detergent then 0.1% (1,000 ppm) chlorine solution.
- If vomiting occurs within the kitchen area, remove immediately and clean the area as above. Contact the IP&C team for further advice.
- Liaise with Housekeeping and increase the frequency (x2 daily minimum) of routine ward/home, bathroom and toilet cleaning (x2 daily minimum) including handles (doors and toilets), taps and bath rails.
- Use freshly prepared 0.1% (1,000 ppm) chlorine solution or equivalent for all cleaning of isolation rooms/bays or ward/home if closed.
- If the employment of Bank and Agency staff is considered necessary, they can work elsewhere afterwards but must be excluded if they develop symptoms. They should, however, not be deployed elsewhere within the same shift.
- The ward/home should not be re-opened until 72 hours after the last patient with vomiting and diarrhoea has been isolated or is symptom free and no new cases have occurred. Advice on when the ward/home should be re-opened will be provided by the IP&C team.
- Home/unit manager to liaise with and arrange for Special clean (Appendix 7) as per the Isolation procedure giving at least 72 hours notice to the supervisor were possible.
- Inpatient unit/ ward staff to arrange with the equipment library for a supply of loan equipment for exchange, such as overlays and dynamic air mattresses. When this is not possible (due to high demand or weekend) staff will be required to decontaminate the mattresses on the ward at the time of the special clean.
- The IP&C team (HPA out of normal working hours) will review the situation on a daily basis and will provide advice in accordance with DH /HPA norovirus guidelines (2011) and outbreak policy.

When a ward/home is closed due to diarrhoea and/or vomiting staff members are to be issued with a stool specimen pot and request form, which is to be used and sent if symptoms develop. **Send samples for MC+S and Norovirus.** If a staff stool specimen; include name of ward/home where working.

2.1 Infection Control Procedures for patients going to X-Ray/ Endoscopy/ Theatres

If a patient from a closed ward/home requires an urgent clinical procedure/investigation, the receiving department must discuss each patient individually with the clinical/nursing team to deem the x-ray/ procedure is clinically necessary at that time. The ambulance service should be informed of the ward/home outbreak status

- If the service user has never had symptoms, the service user can attend the department and Standard precautions should be applied.

- Every effort should be made to ensure that the service user is in the department for as little time as possible. The patient should be returned to the ward immediately following the X-ray/procedure.

- If urgent clinical procedures/investigations are required and the patient has symptoms of diarrhoea and/or vomiting, the receiving department must be contacted and informed in advance.

- Where possible a service user who has had symptoms should be asymptomatic for 72 hours before leaving the ward/home.

- Transportation of the service user is by normal means. If the trolley or wheelchair is soiled with vomit/faeces, it should be cleaned with detergent and water then disinfected with a freshly prepared 0.1% (1,000ppm) chlorine solution or sporicidal wipe and thoroughly dried, ensuring the procedures for Standard Precautions and Hand Decontamination are being followed.

2.2 Information for Service users

Service users and their visitors should be given verbal and written information in the form of a patient information leaflet. The importance of adherence to this and the isolation policy must be stressed to all relevant service users and visitors and their support and engagement secured. Visitors who are considered to be more vulnerable to infection i.e. immuno-compromised and the very young should be discouraged from visiting.

2.3 Outbreak Reporting:

Outbreaks of Gastro-intestinal illness including Norovirus will be reported to the Health Protection Agency by the IP&C team.

A Serious Untoward Incident (SUI) triggered for:

- Outbreaks of infection: which involve presumed transmission within SwICC of 2 or more cases that have epidemiological evidence that they are linked

- Outbreak of infection: that has a significant impact on SwICC e.g. ward closure resulting in restricted admissions and patient movement.

- Outbreaks of infection: that cause significant morbidity/mortality e.g. *Clostridium difficile* noted as cause of death.

2.4 Community Nursing Service

Should community staff be aware of a service user with suspected gastroenteritis, a risk assessment should be undertaken to determine whether the visit can be rescheduled or not. If the visit is assessed as essential then Community staff should if possible visit last on their list.

If a residential home is closed with, for example, viral gastroenteritis then following risk assessments and should a visit be absolutely necessary, then to limit exposure, a designated member of the community team should care for all residents within that home that requires community nursing input making it their last visit of the day.

2.5 Day care centres

It is the responsibility of the person in charge of the day care centre to ensure that all staff are aware of control of infection guidelines, and that they are followed as a matter of routine.

- If an outbreak is suspected Contact Infection Prevention and Control Team (IP&CT) for advice.
- Hand washing with soap and water is essential to help prevent spread of this virus. Alcohol gel is not effective against norovirus
- Good standards of personal and environmental hygiene.
- Good standards of infection control in day care centres.
- Individual cases should remain off work/attending day care until 48 hours after the last episode of Vomiting and/or diarrhoea.
- Staff should wear gloves and aprons for contact with affected individual or environment.
- Ensure that service users in day care centres showing signs of infection are taken home or collected by parents/carers

Symptomatic members of staff should inform their direct line manager and leave work immediately. They should contact the Occupational Health Department by telephone for advice and submit a stool specimen as soon as possible. Staff should not return to work until 48 hours after last episode of symptoms

2.6 Audit

Audit of the compliance with this policy will be carried out by IP&CT and presented as an outbreak report.

2.7 Education and training:

- Education and training will be arranged by the IP&CT at the link network meetings prior to the norovirus season in September/October

References & Further Reading

Ref .No.	Document Title	Document Location
DH/HPA (2011)	Guidelines for the management of norovirus outbreaks in acute and community health and social care settings	**http://www.dh.gov.uk/health/2011/11/norovirus-updated-guidance/**
DH (2007)	Isolating patients with healthcare-associated infection	www.dh.gov.uk
PHLS (2004)	Viral Gastro Enteritis Working Group. Management of hospital outbreaks of gastro-enteritis due to small round structured viruses	Journal of Hospital Infection **45** 1-10
Chadwick P.R, Beards G. et al (2000)	Management of Hospital outbreaks of gastro-enteritis due to small round structured viruses	Journal of Hospital Infection **45** 1-10
	Management of Outbreaks of Viral vomiting and/or diarrhoea	Royal United Hospital Bath
DH (2010)	Health and Social Care Act 2008	http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_110435.pdf
South West Strategic Health Authority	Norovirus bundle of actions (2010)	
South West (North) Health Protection Unit	Integrated Care Pathway (2010)	www.hpa.org

Appendix 1

Stool Chart

NOTE: You must keep documenting the stool even after the diarrhoea stops

Addressograph

Name

Hospital Number

The Bristol Stool Form Scale

Type 1		Separate, hard lumps like nuts (hard to pass)	*Type 5*		Soft blobs with clear cut edges (passed easily)
Type 2		Sausage shaped, but lumpy	*Type 6*		Fluffy pieces with ragged edges, a mushy stool ****Risk assess for infection****
Type 3		Like a sausage but with cracks on its surface	*Type 7*		Watery, no solid pieces, ENTIRELY LIQUID ****Start diarrhoea care pathway****
Type 4		Like a sausage or snake, smooth and soft			

Date	Time	Type 1 - 7	Colour Blood Mucous	Vomit	Action Taken	Signature

Date	Time	Type 1 - 7	Colour Blood Mucous	Vomit	Action Taken	Signature

Appendix 1 Diarrhoea Care Pathway

This care pathway MUST be used for all cases of diarrhoea

Patient name:	
DOB:	
Hospital number:	

Patient Bay				
Date moved				

Date pathway commenced:	
Date of 1st symptoms:	
Date last normal stool passed:	
Date sample sent to lab:	
Date results received:	

Risk assessment	**Yes (Initials)**	**No (Initials)**
Does patient have history of irritable bowel?		
Is patient on laxatives?		
Is patient on newly prescribed medication? (may have side effect of loose stools)		
Has the patient been exposed to anyone with gastrointestinal upset i.e. diarrhoea and or vomiting		
Is patient on antibiotic therapy?		
Does the patient have a history of Clostridium difficile infection		
Must exclude symptoms due to infection		

Initial actions	**Date**	**Time**	**Signature**	**Reason not completed**
Is patient isolated in a single room with en-suite facilities? If yes state date				**If not why not:** No single room available ☐ Contact ICT for further advice Complete RM1 (enter number) ..... Other ☐ State:
Post appropriate precaution sign on side room door				

Initial actions	Date	Time	Signature	Reason not completed
Arrange special clean of current bed space				
Obtain stool specimen				**If not why not** State reason:
Explain to the patient why isolation is needed and give isolation patient information leaflet				
Commence Bristol stool chart, if not already				
Inform relevant medical staff of patient's symptoms.				
Inform domestic team and nursing staff that room and equipment requires enhance cleaning with Actichlor Plus				
Provide disposable or designated equipment for this patients use only				
Infection Control Team /Microbiology OOH informed (following 2 unexplained separate pt incidents of diarrhoea connected in time and place)				

Discontinuation of Pathway	Initials	Date	Time
THIS PATHWAY IS DISCONTINUED WHEN PATIENT PASSES A FORMED STOOL AND HAS HAD NO DIARRHOEA FOR 72 HOURS			
Ensure special clean is undertaken following cessation of symptoms as above or patient transfer/discharge from room			
Pathway discontinued			

C.Diff confirmed?	Initials	Date	Time
PATIENT CONFIRMED WITH CLOSTRIDIUM DIFFICILE TOXIN? REFER TO TREATMENT ALGORITHM			
Ensure special clean is undertaken following cessation of symptoms (72hrs) or patient transfer/discharge from room			
Pathway discontinued			

Appendix 2 ISOLATION TOOL

The basic principle that all patients with MRSA, *Clostridium difficile* or diarrhoea of other unknown cause should be isolated in a side room remains unchanged. It is recognised however that there are often competing demands for the side room, such as those who are in the end stages of life or other valid reasons. When an **outbreak** occurs it often becomes necessary to select the most appropriate isolated patient to come out of isolation to enable you to isolate a more infective patient, such as unexplained diarrhoea and vomiting or C diff. This tool is designed in priority order to help you make these decisions when the IP&C team may not be available. This list is not exhaustive and the on call microbiologist should be contacted for further advice out of hours.

Priority	Condition / Infection	Notes
1	Non Infective patients	This does not include those on LCP
2	Scabies	Who have completed course of treatment
3	Shingles	Provided lesions are crusted and dry
4	MRSA known positive patient	With a negative admission screen
5	MRSA positive nose/groin	Must be on suppression therapy or had 1-2 negative screens during stay
6	MRSA in wound or CSU	Must have an occlusive dressing and be on suppression therapy
7	MRSA Bacteraemia	Provided not colonised elsewhere
8	Bacterial Meningitis	After 24 hours of antibiotic treatment
9	Shingles	Lesions with exudate but covered with occlusive dressings
10	MRSA positive (in any site) but not on any treatment	Commence treatment as per policy
11	Campylobactor	If symptoms have abated
12	Salmonella	If symptoms have abated
13	ESBL in a catheterised patient	Place in a bay with no other urinary catheters
14	Undiagnosed diarrhoea – not thought to be infective	
15	*Clostridium difficile* positive	If formed stools (Type 1-5) have been passed during past 72 hours. No bowel action is not included
16	ESBL/GRE	

Patient who may not come out of isolation with the following Condition / Infection	Notes
Clostridium difficile positive	With active symptoms passing Type 6 or 7 stools
MRSA skin shedder	Exfoliative dermatitis/psoriasis
Pulmonary TB	Confirmed or suspected and on initial 2 weeks of treatment
Shigella	
Undiagnosed diarrhoea	With active symptoms
Swine Flu	Patient on less than 5 days of treatment or no longer showing respiratory symptoms

Appendix 3 DAY BY DAY OUTBREAK CHART

WARD/HOME……………………..……………….. **DATE WARD/HOME CLOSED**……………….. **DATE WARD/HOME OPENED**…………………

Please insert ✓ per shift if bowels opened (Diarrhoea Type 6 or 7) **or patient vomited in appropriate box and an X for no symptoms**

Patient name Hospital Number	Initial Bed Number + any movement	Date if symptoms recurred		DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE		
				N	E	L	N	E	L	N	E	L	N	E	L	N	E	N	N	E	L	N	E	L	N	E	L	N	E	L
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Appendix 4 **OUTBREAK INFORMATION SHEET** K5

INFORMATION REQUIRED BY THE INFECTION PREVENTION AND CONTROL TEAM

WARD: …….. **Date IP&CT informed ……**

Name Unit Number	Status P / S	Onset Date	Symptoms D/V/D&V	Bristol stool chart number	Admission Date	Reason for admission	Treatment e.g. antibiotics /laxatives	Predis-posing condit-ion	Diet	Date of Stool Speci-men	Result	Date Isolated Single	Date Isolated Bay

Upon arrival to Clinical Setting / Start of Symptoms

- ☐ Direct patient with existing / recent history of diarrhoea and / or vomiting to designated area (cubicle/ single room) and **ISOLATE**
- ☐ Ensure staff wear gloves and aprons for direct patient contact or contact with equipment
- ☐ Identify single patient use toilet/bathroom/ commode where possible
- ☐ Complete clinical assessment to confirm symptoms are of infectious origin (sudden onset, projectile vomit, history of contact)
- ☐ Assess risk of other infectious origin (recent antibiotics, history of travel, food history)

Initial Assessment

- ☐ Record date of onset of symptoms
- ☐ Obtain specimen of stool for MC&S/Virology/C.diff as indicated (or vomit for Norovirus)
- ☐ Label specimen for viral testing and send as per local regulations following biohazard precautions.
- ☐ Report suspected cases to IP&C team
- ☐ If two cases or more instigate outbreak approach
- ☐ Commence outbreak reporting

Initial and Ongoing Patient Management

Supportive therapy as for any case of gastrointestinal infection

- ☐ Isolate in single room with dedicated toilet/bathing facilities where possible
- ☐ Post inf. control precaution signs on Isolation room doors
- ☐ Provide dedicated patient equipment if available
- ☐ Ensure local protocol for frequent and enhanced cleaning and linen change is implemented
- ☐ Commence stool chart
- ☐ **DO NOT GIVE ANTIEMETICS OR ANTIMOTILITY AGENTS**

Before Every Patient Contact

- ☐ Clean hands
- ☐ Put on PPE
- ☐ Clean and disinfect patient equipment between patients
- ☐ Wash hands / change gloves between each patient

After Every Patient Contact

- ☐ Remove PPE
- ☐ Wash hands with soap and water
- ☐ Clean and disinfect patient equipment
- ☐ Dispose of infected linen and waste in designated bags

Control of Designated Area (Single room or Bay/Ward)

- ☐ Instigate local closure protocol
- ☐ Instigate Outbreak Management Policy
- ☐ Post restricted entry and infection control signs at Designated Area Entrances
- ☐ Provide patient / visitor / carer / staff information
- ☐ Continue enhanced cleaning (frequency and / or product) including toilets, handles, commodes)
- ☐ Restrict visiting according to local policy
- ☐ Ensure local protocol for enhanced surface cleaning using effective products (detergent with hypochlorite/sporicidal agents)
- ☐ Remove all fruit/ food items

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Appendix 5

Norovirus Checklist

This checklist is **intended for use by healthcare staff dealing with a suspected case of gastrointestinal infection. It is not intended to replace standard infection prevention and control**

Patient and Staff Movement

- ☐ Advice on placement of further suspected cases should be sought from IP&C team
- ☐ Restrict movement of ward/bank staff/junior medical staff
- ☐ AHPs to allocate nominated individual to designated area *or*
- ☐ AHPs/Medical staff to visit designated area last on round
- ☐ Allocate staff to Designated area if limited to Bay/Rooms
- ☐ Avoid cross working between affected and unaffected patients where possible
- ☐ Movement of patients from ward to ward for cohort management is **NOT** recommended
- ☐ Risk assess all potential patient discharges prior to decision to discharge (especially care home residents, those with vulnerable relatives or carer responsibilities)
- ☐ Agree patient transfers with receiving areas following individual assessment and for urgent clinical need only
- ☐ Symptomatic staff should remain absent until symptom free for 2 days (>48hrs)

Appendix 6 SwICC/Residential Homes Escalation Procedure for Management / Communication of Suspected Norovirus Outbreak

	Location			Action	Inform
Level	**Acute Trust (Hospital)**	**Community Hospital**	**Care Home - Residential or Nursing Home**	**Each level's actions are in addition to lower level response**	☎ **Refer to communication Cascade**
0	No cases	No cases	No cases		
1	2 cases in single ward		2 cases in single home	Local Response Implement control & investigation measures	Internal outbreak alert HPU notified. If food poisoning suspected HPU to alert EHOs Isolation, Management of Norovirus/D+V/Outbreak Management Policies
2	More than 2 cases in a single ward	More than 2 cases in a single ward	More than 2 in a Care Home	Instigate local OMT meeting - commence outbreak monitoring and management approach. Implement additional control measures (enhanced cleaning, cohort nursing)	External outbreak alert. External communication cascade:- Partner ICTs, Commissioners, HPU,SHA/SWAST/GP/ cascade including OOH/Primary Link/Inreach /Outreach teams
3	>2 wards with cases +	>2 community wards/hospitals affected +/-	>2 Care Homes	Inform SHA If more than one setting affected - Step up to Emergency Winter Plans Implement countywide Outbreak Management Team / Cross reference HPA Policy Commence countywide OMT meetings	
4	6-10 wards affected	6-10 wards / hospitals affected	6-10 homes affected	Countywide OMT meetings. CEO involvement.	Re-inform following previous actions
5	>10 wards	>10 wards affected	>10 homes affected	Strategic level decision making for elective workload, management of emergency admissions SHA Lead	

Appendix 6 SEQOL Norovirus Management Escalation Plan

ALERT	TRIGGERS	ACTIONS	BY WHOM
Green	**Norovirus known to be circulating in the community.** **No wards or departments closed in Swindon Intermediate Care Centre (SwICC)**	• Norovirus management policy and learning opportunity included on Infection Prevention and Control link network agenda November	**IPCT and IPC Link Workers**
		• IPC update including advice regarding diarrhoea and/vomiting and Norovirus to be delivered to professional forum; Quality, Safety and Performance Unit meeting, whole systems meetings.	**IPCT**
		• IPCT will redistribute the information required for the outbreak documentation tool kits. IPC link workers to ensure that outbreak documentation tool kits are available in work place. These documents will include: ○ SEQOL patient information leaflet on Norovirus ○ SHA Norovirus check list ○ Ward outbreak record (in-patients) ○ Stool chart ○ Ward/Home outbreak/restricted access escalation chart	**IPCT and IPC Link Workers**
		• IPCT will continue to visit in-patient clinical areas/Residential homes. IPC link workers have been asked to invite IPCT to team meetings in other clinical and work place areas.	**IP&CT**
		• Information posters to be in place within SwICC, if norovirus is present in the community, promoting responsible visiting, that is: visitors requested not to visit if they have had symptoms of D&V or contact with someone with symptoms of D&V within the last 72 hours	**IPCT Operational Manager**
		• Information posters to be placed in all staff bases advising of symptoms and requirement to report gastrointestinal illness to OH	

ALERT	TRIGGERS	ACTIONS	BY WHOM
		• On call managers to be included in HPA community outbreak distribution list and disseminate the information received to raise awareness of community norovirus to NHS Swindon clinical/community/care home areas,	
		• Hotel services/Residential homes to ensure that there are sufficient supplies available in in-patient areas of patient and staff used pulp and other disposables, linen including curtains, soap and disposable curtains.	**Carillion Hotel Services Managers/ Residential home managers and IPCT**
		• Facilities managers to promote hand hygiene and IPC awareness with operational staff.	
		• DIPC/IPCT participation in community wide conference calls relating to diarrhoea and/or vomiting/norovirus outbreaks as required.	**DIPC/IP&CT**
Amber	**Suspected / confirmed case on one or more wards within Swindon Intermediate Care Centre.** **1 symptomatic case on ward isolated to single room. One bay on ward closed with potentially**	**<u>As for Green and in addition:</u>** • SWICC/Residential Home staff to inform IP&CT or on call manager out of hours (on call manager decides whether to contact HPA out of hours)	**Ward staff**
		• IP&CT/(HPA out of hours) to undertake risk assessment and decide whether restricted access to wards/homes is required. Ward/home staff to ensure notices of restrictions are present at ward/home entrance to inform visitors	**IPCT, DIPC, Ward Managers**
		• SEQOL IP&CT to put control measures in place and advise on call manager and confirm any bed closures /restrictions who will then update DIPC of the situation	**IP&CT/ Ward Staff**

ALERT	TRIGGERS	ACTIONS	BY WHOM
	exposed (not symptomatic) patients.	• Ward /Home staff on affected wards/homes to use soap and water to clean hands	**Ward Staff**
		• In-patient wards/homes to use outbreak documentation tool kits.	**Ward Staff**
		• If ward/home restrictions are in place, service users on affected wards and residential home residents who require clinically essential investigation in other departments (i.e. xray) or urgent out-patient appointments must be individually risk assessed prior to transfer. Receiving service /out patient dept and relevant ambulance services must be made aware that patient is being nursed on ward/home with restricted access utilising inter healthcare transfer form	**IP&CT Ward Staff**
		• IPCT to contact the affected ward(s)/home(s) daily (Monday -Friday) to gain update of situation and provide advice and support. Detailed email sent to DIPC; HPA, Registered managers; Ward Managers; Service leads; Communications lead and on call managers.	**IP&CT**
		• Daily (Monday-Friday) reporting SwICC/Residential home situation by IPCT via email internally and to health community by established outbreak distribution list which includes stakeholders in health and social care. Outbreak distribution list to be provided by Senior Manager, SwICC and Residential	**IP&CT**
		• IPCT to update on-call Manager and on-call Director of in-patient situation on Friday with suggested potential escalation actions	

ALERT	TRIGGERS	ACTIONS	BY WHOM
Red	**One or more wards with restricted access**	**<u>As for Amber and in addition:</u>**	
		• The need for an outbreak meeting will be assessed by the DIPC and IP&CT	**DIPC**
		• If required, outbreak meetings to be held for closed wards/homes chaired whenever possible by DIPC or IP&CT. Outbreak meeting agenda and personnel attendance template in place. Minutes distributed to established list. Admin support to be identified for these meetings). TOR to be agreed by DIPC	
		• Discharge of patients from wards with restricted access to own home must be in line with this policy (section 2.4)	**Ward Staff**
		• Wards with restricted access must not transfer patients to care homes or other hospitals until outbreak is declared over and patients have been free from symptoms for 72 hours	**Ward Staff**
		• RM1 completed for ward closure. Root cause analysis and ward/home closure reported as a Serious Incident	**Ward Manager**
		• Restricted visiting in place. Information sheets for visitors	**Ward Staff**
		• Liaison with HPA on daily basis by IPCT as appropriate	**IP&CT**
		• DIPC liaison with Strategic Health Authority if appropriate	**DIPC/IPCT**
		• Consider DIPC/IPCT availability at weekends/Bank holidays	**DIPC**

Appendix 7 Cleaning schedule/requirements for ward re-opening SwICC

Ward staff (following discussion with IP&C) will book special clean with Carillion with 72 hours notice where possible
Ward responsible for requesting replacement air mattresses 48hrs in advance where possible

Nursing check list:-

	Clean	Check	Pre-order	Replace	Sign & Date
Telephones	✓				
PC's/keyboards	✓				
Dynamaps	✓				
BP cuffs	✓				
Suction bottles/tubing	✓				
Oxygen masks/tubing				✓	
Nurses Station	✓				
Air mattresses			✓		
Chair cushions			✓		
Nursing folders	✓				
Doctors notes	✓				
Patient catheter bags	✓				
Blood glucose box	✓				
Drug Trolley's	✓				
Doctors notes Trolley's	✓				
Patient headphone foams				✓	
Commodes-all	✓	✓			
Shower room chairs	✓	✓			
IV pumps	✓				
Drip stands	✓				

OUTBREAK – SPECIAL CLEAN CHECKLIST - Carillion

BAY / SIDE ROOM	Cleaned by / Dated	Checked by / Dated
Alcohol Gel Dispenser		
Bed		
Bed Light		
Ceiling Vents		
Chair		
Clinical Waste Bin		
Curtains -Replace		
Door		
Door Handle		
Hand gel on beds/dispenser		
Hand Towel Dispenser		
Household Waste Bin		
Internal Glazing		
Light switches		
Locker		
Low Level Dusting		
Mirror		
Patient chairs		
Patient Handbook		
Patient Name Plate		
Patient Notes Clip Board		

BAY / SIDE ROOM	Cleaned by / Dated	Checked by / Dated
Sink		
Soap Dispenser		
Switches		
Table		
Television		
Window Ledges		

	Cleaned by / Dated	Checked by / Dated
TOILET AREA		
Ceiling Vents		
Clinical Waste Bin		
Door		
Door Handle		
Hand Towel Dispenser		
Household Waste Bin		
Internal Glazing		
Low Level Dusting		
Mirror		
Sink		
Soap Dispenser		
Switches		
Toilet		
Window Ledges		

	Cleaned by / Dated	Checked by / Dated
SLUICE AREA		
Alcohol Gel Dispenser		
Ceiling Vents		
Clinical Waste Bin		
Door		
Door Handle		
Hand Towel Dispenser		
Household Waste Bin		
Internal Glazing		
Low Level Dusting		
Mirror		
Sink		
Soap Dispenser		
Switches		
Window Ledges		

	Cleaned by / Dated	Checked by / Dated
Clean utility		
Alcohol Gel Dispenser		
Ceiling Vents		
Clinical Waste Bin		
Door		
Door Handle		
Hand Towel Dispenser		
Household Waste Bin		
Internal Glazing		

	Cleaned by / Dated	Checked by / Dated
Low Level Dusting		
Mirror		
Sink		
Soap Dispenser		
Switches		
Window Ledges		
Offices		
Alcohol Gel Dispenser		
Ceiling Vents		
General Waste Bin		
Door		
Door Handle		
Hand Towel Dispenser		
Household Waste Bin		
Internal Glazing		
Low Level Dusting		
Mirror		
Sink		
Soap Dispenser		
Switches		
Window Ledges		
Kitchen		
Alcohol Gel Dispenser		
Ceiling Vents		
General Waste Bin		
Door		
Door Handle		
Hand Towel Dispenser		
Household Waste Bin		
Internal Glazing		
Low Level Dusting		
Mirror		
Sink		
Soap Dispenser		
Switches		
Corridors		

Appendix 8

Norovirus Checklist

(Care homes)

This checklist is intended for use by care home staff dealing with a suspected case of gastrointestinal infection. It is not intended to replace universal infection prevention and

Upon arrival to Care Home/ Start of Symptoms

- ☐ Direct resident with existing / recent history of diarrhoea and / or vomiting to designated area (single room) and **ISOLATE**
- ☐ Ensure staff wear gloves and aprons for direct contact or contact with equipment
- ☐ Identify single resident use toilet / commode where possible
- ☐ Complete clinical assessment to confirm symptoms are of infectious origin (sudden onset, projectile vomit, history of contact)
- ☐ Assess risk of other infectious origin (recent antibiotics, history of travel, food history)

Initial Assessment

- ☐ Record date of onset of symptoms
- ☐ Obtain specimen of stool for MC&S/Virology/C.diff as indicated (or vomit for Norovirus)
- ☐ Label specimen for viral testing and send as per local regulations following biohazard precautions.
- ☐ Report suspected cases to IP&CT who will liase/inform HPU
- ☐ If two cases or more instigate outbreak approach
- ☐ Commence outbreak reporting

Initial and Ongoing Management

Supportive therapy as for any case of gastrointestinal infection

- ☐ Isolate in single room with dedicated toilet facilities where possible
- ☐ Post restricted entry and infection control signs
- ☐ Provide dedicated patient equipment if available
- ☐ Ensure local protocol for frequent and enhanced cleaning and linen change is implemented
- ☐ Record fluid balance and commence stool chart
- ☐ **DO NOT GIVE anti-sickness OR anti-diarrhoeal agents**

Before Every Resident Contact

- ☐ Clean hands
- ☐ Put on PPE
- ☐ Clean and disinfect patient equipment between patients
- ☐ Wash hands / change gloves between each patient

After Every Resident Contact

- ☐ Remove PPE
- ☐ Wash hands with soap and water
- ☐ Clean and disinfect patient equipment
- ☐ Dispose of infected linen and waste in designated bags

Control of Designated Area (Single room or Double room)

- ☐ Instigate local closure protocol
- ☐ Instigate Outbreak Management Policy
- ☐ Inform HPU and Partner Agencies eg. GP
- ☐ Post restricted entry and infection control signs at Designated Area Entrances
- ☐ Provide resident/ visitor / carer / staff information
- ☐ Inform Next of Kin and advise on family members visiting
- ☐ Restrict visiting accordingly to reduce spread
- ☐ Ensure local protocol for enhanced surface cleaning using effective products (detergent with hypochlorite/sporicidal agents)
- ☐ Remove all fruit/ food items
- ☐ Ensure all staff entering Designated Area wear PPE and wash hands with soap and water when entering and leaving area

Resident and Staff Movement

- ☐ Restrict movement of carers/bank staff/nursing staff within the care home
- ☐ Visiting AHPs should be informed of the outbreak and advised about clinical need to see residents
- ☐ AHPs/Medical staff to visit Designated Area last on visit
- ☐ Allocate staff to Designated Area if limited to Rooms
- ☐ Avoid cross working between affected and unaffected residents where possible
- ☐ Movement of residents around the home should be restricted
- ☐ Risk assess all potential resident admissions to hospital and ensure that hospital staff are aware of symptoms within the home (even if not the in the resident requiring admission) so that control measures can be put in place
- ☐ Agree patient transfers with receiving areas following individual assessment and for urgent clinical need only
- ☐ Symptomatic staff should remain absent until symptom free for 2 working days (>48hrs)

72 hours after Cessation of Uncontained Symptoms/Discharge

- ☐ Decision taken with advice from HPU and according to local protocol
- ☐ Provide resident/visitor advice re hand washing and hygiene
- ☐ Instigate a deep clean of Designated Area
- ☐ Change curtains and all linen items
- ☐ Complete deep/final clean checklist prior to stand down
- ☐ Outbreak considered over if no new cases for 7 days following final case being symptom free

ABOUT THIS CHECKLIST

The NHS Southwest *Norovirus Management Checklist* is intended for use by care home staff treating a suspected or confirmed case of gastrointestinal infection that may be attributed to Norovirus. This checklist combines two aspects of management:

iii) clinical assessment of possible cases
iv) infection control measures to limit the spread of cases thus reducing the duration of an outbreak

The checklist is not a comprehensive tool but follows the approach of WHO Patient Safety Checklists in highlighting actions to be taken at critical points in the residents' care pathway. They are produced in a format that can be referred to readily and repeatedly by staff to ensure that all essential actions are performed. They are not comprehensive protocols and do not replace routine care.

How to Use the Checklist

Staff can use this checklist in a variety of ways – ticking the boxes is optional. The objective is to ensure that no critical resident care items are missing during or immediately following care

The checklist can be:

- Used as part of the resident care record
- Reproduced as wall posters
- Printed as individual staff aide memoirs
- Included in outbreak kits
- Adapted and revised for local use

This checklist does not replace clinical guidance or clinical judgment.

Related Guidance and Advice

Clinical areas closed within 3 days of onset of cases are reported to have:

- **Outbreaks of shorter duration**
- **Lower patient attack rates**
- **Lower staff attack rates**

Testing

PCR testing is recommended for sensitivity and specificity

Incubation	**Duration**	**Low infectious dose**
10-72 hours	24-48 hours	asymptomatic carriage common

Sources - contaminated food/water, infected food handlers, infected people

Transmission - aerosols, contaminated hands/surfaces

Patient Recovery - 75% will recover within 3 days

- 10% of hospitalised cases will remain symptomatic at Day 10

Estimated Outbreak Costs per NHS Trust (Acute and Community)

References

Lopman, B. et al (2004) ***Epidemiology and cost of nosocomial gastroenteritis, Avon, England, 2002-2003*** Emerging Infectious Diseases, 2004; 10(10):1827

WHO (2009) ***Patient Care Checklist: new influenza A(H1N1)*** Available at www.who.int

Lopman B. et al ***Clinical manifestation of norovirus gastroenteritis in health care settings*** **Clinical Infectious Diseases, 2004; 39(3):318-24**

This checklist was devised by members of the NHS Southwest Norovirus Working Group and its use will be subject to ongoing evaluation. For further information contact:
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