The Royal Wolverhampton NHS Trust

IP18

Norovirus Policy

Contents

1.0. Policy Statement (Purpose / Objectives of the policy)

The Royal Wolverhampton NHS Trust (RWT) is committed to reducing and managing risk and ensuring effective and safe practice. This policy details the preventative actions to take to try to prevent norovirus outbreaks and how to manage any that occur.

This policy has been developed to equip all healthcare professionals at RWT with the necessary information on the recognition, management, and treatment of an outbreak of norovirus.

This policy applies to all staff working in RWT.

In adhering to this Policy, all applicable aspects of the Conflicts of Interest Policy must be considered and addressed. In the case of any inconsistency, the Conflict-of-Interest Policy is to be considered the primary and overriding Policy.

2.0. Definitions

Norovirus (Appendix 1) is the most common cause of infectious gastroenteritis (diarrhoea and vomiting) in England and Wales, and it is estimated to cost the NHS more than £100 million per annum (PHE 2012). Infections can occur at any age because immunity is not long lasting, and norovirus is highly infectious. Outbreaks can start abruptly and spread quickly. To minimise the impact on patients and the Trust, outbreaks must be recognised, reported, and controlled swiftly (Appendix 2 and Appendix 3). Many outbreaks are caused by increased numbers of in-patients attending the Trust via emergency portals (PHE 2012). It has been shown that asking a standard set of questions at the first contact with the Trust can enable patients with possible norovirus to be isolated or redirected to the GP or Community Services to prevent spread within the Trust (Appendix 4) (PHE 2012).

2.1. Case definition

Suspected cases of norovirus have one of a, b, or c below (PHE 2012) not associated with prescribed drugs or treatments and not associated with reactions to anaesthetics or an underlying medical condition or existing illness.

a. Vomiting: two or more episodes of vomiting from a suspected infectious cause occurring in a 24-hour period.
b. Diarrhoea: two or more loose stools in a 24-hour period.
c. Diarrhoea and vomiting: one or more episodes of both symptoms occurring within a 24-hour period.

A confirmed case of norovirus: a, b, or c above with microbiological confirmation.

2.2. Outbreak definition

Suspected outbreak: two or more cases, as defined in 2.1 occurring in a functional care unit within the hospital without laboratory confirmation.
Confirmed outbreak: two or more cases, as defined in 2.1 occurring in a functional care unit within the hospital with laboratory confirmation
In the absence of laboratory confirmation, the following criteria can be used as a potential indicator of a norovirus outbreak:

- average duration of illness of 12 – 60 hours,
- average incubation period of 24 – 48 hours,
- more than 50% of people with vomiting, and
- no bacterial pathogen found.

If an outbreak caused by norovirus is suspected, but it does not strictly meet these criteria, it must still be reported. Report each affected ward or department separately. The outbreak is considered over when there have been no new cases for seven days after the last case was considered to be symptom free (PHE 2012).

2.3 What to do if you suspect you have an outbreak

If you have two or more cases of unexplained diarrhoea and, or vomiting on your ward, whether staff or patients, you may be at the start of an outbreak. It is the responsibility of the Nurse in Charge to contact the Infection Prevention Team (IPT) Monday – Friday 0900-1700hrs on 85282 or via the duty mobile, speed-dial *3354, immediately for further advice (Appendix 1).

At weekends between 0900 and 1700, the Nurse in Charge must discuss this with the on-call Infection Prevention Nurse via speed-dial *3354 or via switchboard. Out of hours, contact the Consultant Microbiologist via switchboard. Also inform the On-call Manager or Night Nurse Manager via switchboard.

3.0 Accountabilities

Infection Prevention & Control Group (IPCG)

- Provide input into this policy through the consultation process and approve this policy prior to the ratification process.
- Provide assurance through approval of this policy to the executive committee to support and inform their decision in ratifying this policy.
- In the event of an outbreak, receive outbreak reports from the Chair of the Outbreak Committee (OC).
- Receive outbreak data via the Lead Nurse Infection Prevention report monthly as applicable.

Infection Prevention Team (IPT)

- Provide support and advice on the implementation of this policy.
- Review the policy three yearly post ratification unless changes in national guidance overrides this or there has been a specific request to review it sooner.
- Confirm outbreaks and necessary onward reporting.
- Alert staff to the need to implement additional actions to prevent or contain an outbreak or SI.
- In conjunction with the OC, co-ordinate the management of the outbreak or SI and associated actions.
- Ensure that the appropriate level of communication is released in line with the escalation procedure.
- Provide administrative support to facilitate the outbreak meeting.
- Provide accurate outbreak surveillance data at the OC meeting.

Outbreak Control Committee (OC)

The purpose of this committee is to provide immediate response and action to an outbreak as outlined in Appendix 5 and Appendix 6.

3.1 Roles and Responsibilities

Everyone has a clinical and ethical responsibility to adhere to effective infection prevention procedures and to act in a way which minimises the risk to the patient.

Consultants and Clinical Directors

Consultants and Clinical Directors are responsible for ensuring that Infection Prevention and Control policies, procedures and guidance are applied consistently across the clinical team and that they act as a good role model for infection prevention and control.

Divisional Heads of Nursing and Midwifery

Divisional Heads of Nursing and Midwifery are responsible for ensuring that resources are available for healthcare professionals to undertake effective standard and isolation precautions. They will also be responsible for reporting to the OC progress on actions requested by the OC, and any difficulties experienced or barriers to control measures to be implemented.

Matrons

Matrons are responsible for ensuring that staff are aware of this policy and that the guidance is implemented across their clinical area. They must keep clear and contemporaneous records of the outbreak, actions agreed, and resource implications. They must report to their Divisional Heads of Nursing and Midwifery the progress they have made on the actions requested by the OC, and of any difficulties experienced or barriers to control measures to be implemented. They must increase the frequency of environmental and quality monitoring of the affected area and other areas which have the potential to be affected and liaise with Hotel Services to ensure appropriate environmental standards are maintained.

Senior Sisters/ Charge Nurses/ Departmental Managers

Senior sisters, charge nurses and departmental managers are responsible for ensuring that all members of staff under their management control are appropriately trained, have access to appropriate personal protective equipment, and adhere to safe practices. They must keep clear and contemporaneous records of the outbreak, actions agreed and resource implications.

Equipment such as hoists and weigh scales must not be shared with other clinical areas during the outbreak.

They must report to their Matron the progress they have made on the actions requested by the OC, and of any difficulties experienced or barriers to control measures to be implemented.

They must ensure adequate signage is displayed at ward/bay entrances to inform visiting staff and relatives that there is a potential outbreak in the area.

Clinical Staff

Clinical staff are responsible for complying with the requirements of the Trust Infection Prevention Policies, attending appropriate training, and using appropriate personal protective equipment. They must maintain clear and contemporaneous records of the outbreak. They must report to their senior sister, charge nurse or departmental manager the progress they have made on the actions requested by the OC, and any difficulties experienced or barriers to control measures to be implemented.

Non-clinical Staff

Non-clinical staff are responsible for complying with the requirements of the Trust Infection Prevention Policies, attending appropriate training, and using appropriate personal protective equipment. They must report to their supervisor the progress they have made on the actions requested by the OC, and any difficulties experienced or barriers to control measures to be implemented.

Occupational Health and Wellbeing (OHWB)

OHWB must be aware of this policy and attend the OC meetings, and complete actions as delegated to them at the OC meeting. OHWB is responsible for ensuring that there is appropriate written advice for staff, making clear arrangements for staff to contact the OHWB Department. They must ensure that there is a process in place to monitor staff sickness associated with the outbreak.

4.0 Policy Detail

Norovirus is a major cause of acute gastroenteritis and diarrhoea in children and adults. The disease is often termed Winter Vomiting Disease because of the increased prevalence in the winter months; it can, however, be detected throughout the year.

Norovirus is the most common cause of outbreaks of gastroenteritis in hospitals and can also cause outbreaks in other settings including schools, nursing homes and cruise ships. Hospital outbreaks often cause major disruption to hospital activity resulting in ward closures, cancelled admissions and delayed discharges which can significantly reduce clinical activity for the duration of the outbreak.

Failure to observe and comply with infection prevention guidelines and policy can lead to further spread of infection and a delay in the hospital returning to normal activity. Outbreaks can affect patients and staff, sometimes with attack rates more than 50%.

This can lead to staff shortages, which can be severe, particularly if several wards are involved at the same time. It is therefore essential that cases are detected early and isolated appropriately to prevent spread and a major outbreak.

Norovirus is highly contagious; around 30 million viral particles are released during one vomiting incident. It only takes around 100 particles to cause illness. Noroviruses are transmitted primarily through the faecal-oral route either by person to person or via contaminated food or water. In addition, norovirus can be spread via aerosol dissemination of infected particles following vomiting. Transmission can also occur through hand transfer of the virus to the oral mucosa following contact with environmental surfaces, fomites and equipment which have been contaminated with either faeces or vomit. The virus can survive for up to **12 days** on some surfaces.

4.1 Ward management

4.1.1 Documentation

A daily record sheet for all symptomatic patients is required by 1000hrs (Appendix 9). Accurate documentation on all symptomatic patients and staff is vital for the IPT to make an accurate assessment of the infection and plan the correct course of action (Appendices 9, 10 and 11). It is the responsibility of the Nurse in Charge to ensure that accurate documentation is maintained on all symptomatic patients throughout the duration of the outbreak.

The toolkit checklist of actions and the norovirus checklist (Appendix 7) and the individual assessment form (Appendix 11) are intended for use by hospital staff treating a suspected or confirmed case of gastrointestinal infection that may be attributed to norovirus. This checklist combines two aspects of management:

i. clinical assessment of possible cases and

ii. 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 patient's 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. **This checklist does not replace clinical guidance or clinical judgement.**

4.1.2. Isolation

- Any patient admitted with symptoms suggestive of norovirus must be admitted directly into a single room with ensuite facilities, if available, and the IPT must be informed. The Integrated Health and Social Care Team and the Patient Flow Manager are available for advice. If additional advice is required a Microbiologist is available via switchboard.
- The allocation of a single room will generally take precedence over all other 'alert' organisms **except for** suspected or confirmed:
- Pulmonary Tuberculosis
- Clostridioides difficile
- Bacterial meningitis (for the first 24 hours of antibiotic therapy)
- Chicken pox (during infectious phase)
- Measles

- Typhoid
- CPE
- COVID-19
- Monkeypox
- If staff are unsure as to whether a patient already in a single room can be de-isolated, the IPT must be contacted (out of hours the Consultant Microbiologist via switchboard), as well as the On-call Manager and Patient Flow Manager via switchboard.
- The priority is to ensure that patient care is not compromised and at the same time to prevent the spread of the virus to other susceptible patients and prevent a major hospital outbreak.
- Doors to bays and side rooms **must** remain closed.
- Symptomatic patients must have dedicated equipment e.g., monitoring equipment. Patient equipment must be cleaned and disinfected with a chlorine-based product between each patient use. Commodes and toilet areas must be cleaned with a chlorine-based product.
- A poster (located in your norovirus toolkit) must be displayed at the entrance of the ward advising that there is an outbreak of diarrhoea and vomiting.
- A poster (located in your norovirus toolkit) must be displayed at the entrance to the bay or ward advising that the bay or ward is closed.

4.1.3. Ward closure

- Where two bays are affected in the outbreak, the Outbreak Committee will discuss, and a decision made as to whether the ward will close. The decision will be made following recommendations made by the IPT and the microbiologist.
- If a patient has had symptoms of suspected or confirmed norovirus and they are in a bay with others, the whole bay must be closed to contain the spread of infection from both affected and exposed patients. This decision will be made following discussion with the IPT and the microbiologist.
- If the affected patient is transferred to a single room (within the ward), the remaining patients still need to be isolated as they may be incubating the virus.
- There **must** be no further admission to the closed bay or ward.

Specific nursing staff must be allocated to nurse symptomatic patients (night and day).

4.1.4. Personal protective equipment

- Personal protective equipment (PPE) must be used appropriately and for each episode of care, treatment, and examination of all patients by all staff.
- There is currently no evidence to support the wearing of face masks by either patients or staff.

4.1.5. Hand hygiene

- Hands of healthcare staff can provide the vehicle for the transmission of this infection. It is essential that all staff wash their hands as per the five moments of hand hygiene using the correct washing technique to help reduce the risk of transmission.
- Alcohol hand gel used within the Organisation is effective against this virus and therefore must be used following patient contact, unless the hands are contaminated with organic matter, in which case they must be washed with soap and water using the correct washing technique.
- Gloves **do not** negate the need for hand decontamination.
- Patients must be provided with the opportunity to wash their hands or use hand

wipes after each toileting episode and before each meal.

- A poster (located in your norovirus toolkit) must be displayed at the entrance to the bay or ward advising staff, patients, and visitors to clean their hands.

4.1.6. Patient movement

- There must be no transfer of patients to other departments, wards or hospitals from the affected bay or ward unless there is an **urgent clinical need** in which case the receiving department must be informed. In this situation, the patient must be seen immediately on arrival at the department and preferably at the end of a list. Minimal numbers of staff should attend the patient. Aprons and gloves must be worn. All equipment that the patient has had contact with must be cleaned with a chlorine-based disinfectant. The patient must return directly to the ward and **must not** wait in a waiting area with others.
- In the event of the patient requiring surgery, theatre staff must be informed that the patient is from an affected ward or bay. The patient must be placed last on the list. The patient must go directly to the anaesthetic room and **must** be recovered in theatre. The patient must not be recovered in the Recovery Area with other patients. Minimal numbers of staff must be in the theatre. The theatre, all equipment and the anaesthetic room must be cleaned thoroughly using chlorine-based disinfectant after the patient has left the theatre.
- The movement of affected patients from one ward to another for cohort management is **not** recommended.
-

Patients from affected wards must not be discharged to Care Home facilities until the outbreak is declared over or the patient is more than 72 hours symptom free or from last exposure. Patients can however be discharged to their own home, if medically fit.

4.1.7. Staff

- Staff who become symptomatic with diarrhoea and, or vomiting must leave the area immediately and not return to work until they are 48 hours clear of symptoms.
- Staff may be required to submit a sample of faeces to OHWB to assist with outbreak investigation.
- Non-essential staff **must not** visit the affected bay or ward.
- Phlebotomy staff are advised to limit exposure by allocating a designated staff member for outbreak affected areas.
- Where bays only are closed, a team of specific staff must be allocated to these bays.
- Staff (both clinical and non-clinical) who are working on affected wards must not be moved to work in other areas of the hospital, this is applicable to all healthcare professionals.
- Bank staff and medical staff who are working on affected wards must not be moved to work in other areas of the hospital.
- Allied Health Professionals (AHP's) must allocate a nominated individual to affected wards. If this is not possible, the affected wards must be visited last.
- If an AHP, who has been allocated to the affected wards, is working on an affected ward when it is re-opened, they may continue working on the ward if they have already started treatments. Wherever possible, specific medical staff must be allocated exclusively to the affected wards. If this is not possible, the affected wards must be visited last.
- Frequently asked questions can be found in Appendix 12.

4.1.8 Ward staff responsibilities

- An outbreak surveillance form for symptomatic patients and staff (Appendix 9 – 11) must be maintained by the ward team throughout the outbreak. This will be reviewed daily between 0900 and 1100hrs by a member of the IPT.
- A Bristol Stool and fluid balance chart must be maintained on all symptomatic patients.
- A stool sample must be sent from the affected patients to the microbiology laboratory; a result should be known the same day. If this is not possible then the result will be available, the next day.
- Ward staff must inform Hotel Services of the situation and advise the use of chlorine-based disinfectant (1000 ppm).
- Water jugs must be kept covered (to prevent the water from becoming contaminated) and washed thoroughly each day in a dishwasher. The water must be changed frequently.
- Bottled water will be requested in outbreak situations following advice from Infection Prevention.
- Bowls of fruit and open packets of food (e.g., biscuits) must be removed as they may become contaminated as a result of aerosol contamination; these items may be stored in lidded containers.
- Patient drugs and food and drink trolleys must not be taken into bays during suspected or proven outbreaks.
- Patient notes must be removed from the bay or side room and stored outside and not in the bed space.
- Patient notes must not be taken into the affected bays or side rooms.

4.1.9. Ward cleaning

- Whilst a bay or ward is closed during an outbreak, the area must be cleaned daily using a combined detergent and chlorine-based disinfectant (e.g., So-Chlor 1000ppm).
- Frequently used areas such as toilet areas must be cleaned at least three times a day, and more frequently should the need arise.
- Soiling with vomit must be cleaned to a radius of 3 metres if possible and people taken out of the area until cleaning has been completed.

4.1.10. Visiting

- Friends and family must be informed that the ward or bay is currently closed because of diarrhoea and vomiting.
- Information leaflets are available for patients and their relatives and visitors.
- Visitors must be asked to postpone their visit, or, if essential for personal reasons, to make the visit as short as possible, and they must not bring in food.
- Visitors must be asked to decontaminate their hands prior to entry to the ward and before leaving.
- Visitors must be restricted to close family members. Children must be advised not to visit.
- In some circumstances the ward may have restricted visiting to one hour a day or be completely closed to visitors. This decision is made by the OC during outbreak meetings and not by individual areas.
- In exceptional circumstances, visiting should be permitted e.g., end of life patients.

4.1.11. Ward re-opening

- Rooms, bays, or the ward **must** be terminally cleaned using Hydrogen Peroxide Vapour (HPV) and reopened 72 hours after the last symptomatic episode, on the instruction of the IPT or microbiologist.
- Terminal cleaning must be monitored by the Nurse in Charge. The ward or bay must not be re-opened until approved by the Nurse in Charge.

4.1.12. Patient treatment

- There is no effective treatment for norovirus; it is a self-limiting illness which will cease within a few days. It is important to ensure prompt fluid replacement to prevent dehydration and its complications.
- Anti-emetics or anti-motility agents must not be prescribed.

4.1.13. Avoiding Admittance to Hospital

Preventing admission into Acute Hospitals is an important strategy in the prevention of spread. An outbreak management plan '*Management of Norovirus in a Care Home Setting*' is in operation in community care homes in Wolverhampton. The outbreak notification form for Care Homes is attached for information (Appendix 15). The clinical pathway incorporates a flowchart for activating the clinical pathway and a fifteen-minute fluid balance chart for encouraging and monitoring hydration. If a person is assessed as requiring admission to hospital, the receiving portal must be notified to enable consideration for isolation on arrival.

Referral to Community nursing teams must be considered as an admission avoidance strategy.

4.2. Escalation procedure

4.2.1. ED/AMU

All patients admitted with symptoms of diarrhoea and vomiting must be admitted into a side room and presumed to have infectious diarrhoea until proven otherwise. For more than one case, follow the AMU escalation procedure (Appendix 13).

4.2.2. Trust wide

When more than two wards are suspected or confirmed as having norovirus and cases are not confined to single bays, an outbreak meeting must be convened in accordance with the outbreak policy and escalation procedure for management of suspected or confirmed norovirus outbreaks (Appendix 14).

Level	Status
Level 1	Normal working. Known outbreaks in the community, but no cases within the Trust. Potential for cases to be admitted via the emergency portals i.e., ED & AMU.
Level 2	2 suspected cases on 1 or 2 wards or cases confined to single bays.
Level 3	Suspected cases on 1 or 2 wards, not confined to single bay.
Level 4	More than 3 wards affected.

4.3. Norovirus toolkit

Each ward will have been issued a norovirus toolkit which will contain the following:

- Outbreak surveillance form for patients,
- Norovirus Toolkit Checklist,
- Health Alert door poster x 1,
- Ward closed poster x 1,
- Bay closed poster x 2, and
- Hand hygiene poster x 3.

4.4. Key Performance Indicators

The IPT will complete a 48-hour report for Governance, on the definition, extent, and proposed control of the outbreak. If it is a Trust-wide outbreak, IPT will prepare interim reports, if required, for the IPCG and Trust Board as well as a final report following an RCA investigation at the conclusion of the outbreak. If an individual area is affected, then the individual area will be responsible for completing the report.

4.5. Appendices

Further information can be located in the following appendices:

5.0. Financial Risk Assessment

1	Does the implementation of this policy require any additional Capital resources	No
2	Does the implementation revenue resources of this policy require additional	No
3	Does the implementation of this policy require additional manpower	No
4	Does the implementation of this policy release any manpower costs through a change in practice	No
5	Are there additional staff training costs associated with implementing this policy which cannot be delivered through current training programmes or allocated training times for staff	No

	Other comments To ensure that there are formal arrangements in place to fund the cost of dealing with outbreaks this is a requirement of The Health and Social Care Act 2008: Code of Practice for health and adult social care on the prevention and control of infections and related guidance (2012).	

6.0. Equality Impact Assessment

There are no other equality or diversity issues arising from this policy.

7.0. Maintenance

This policy will be implemented via the following routes.

- Information regarding the policy will be included on the Intranet.
- The policy will be downloaded to the Infection Prevention page of the Trust intranet page.
- The policy will be circulated to all Infection Prevention Links, Senior Sisters and Charge Nurses, Departmental Managers and Matrons.
- Norovirus awareness information is included within the IP mandatory training packages and awareness sessions, for Link staff will be arranged to highlight key points within the policy ahead of winter planning

7.1. Review

From this date onwards the policy will be reviewed every 3 years unless changes in national legislation override this or there has been a specific request to review sooner.

8.0. Communication and Training

For the duration of any period of closure the Chief Executive, Executive Directors, Deputy Chief Operating Officers, Integrated Health and Social Care team and any other relevant personnel will be updated by the IPT daily. The IPT will provide details of which ward(s), the number of empty beds, number of cases to date, the last occurrence and the next review date and time.

The IPT will clearly identify the arrangements for training and support before an outbreak is declared.

Staff must be trained in infection prevention on an annual basis. Any recognised needs of training and support during an outbreak must be dealt with appropriately and necessary support given. Education to patients and the public must also be given during this time. The use of enclosed leaflets and information sheets can help to assist with this process. Establishing how the policy is implemented and when, needs to be understood by those involved in the outbreak escalation process. An understanding of the four levels of the emergency planning and major incident escalation must be ensured before and during this process, if necessary, training must be offered to ensure this understanding.

9.0 Audit Process

Criterion	Lead	Monitoring method	Frequency	Committee / Group
Norovirus activity	Head of Nursing Corporate Support Services	Lead Nurse IP report	Monthly as activity occurs	IPCG
Norovirus Outbreak	Lead Nurse Infection Prevention	IPCG	Post outbreak analysis	IPCG

Monitoring compliance with the policy will be via auditing, practice review and carrying out workplace inspections.

During the outbreak, the IPT will keep a record of the number of patients and staff that were affected and how long a bay or ward was closed to admission due to infection. The IPT will co-ordinate with the microbiology laboratory to ensure a relevant sample of affected patients receives norovirus testing. It is therefore essential that infection control measures are implemented as soon as an outbreak is suspected.

10.0 References

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Department of Health. 2012. The Health and Social Care Act 2012. Code of practice for health and adult social care on the prevention and control of infections and related guidance. London

Hawker J., et al 2012 Communicable Disease Control and Health protection Handbook. Wiley-Blackwell, London. 3rd Edition

Health Protection Agency et 2012. Guidelines for the Management of Norovirus outbreaks in acute and community health and social care settings

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/322943/Guidance_for_managing_norovirus_outbreaks_in_healthcare_settings.pdf

Lopman. B. et al. 2004. Clinical manifestation of norovirus gastroenteritis in healthcare settings. Clinical Infectious Disease. 39 (3). 318-24

Lopman. B. et al. 2004. Epidemiology and cost of nosocomial gastroenteritis. Emerging Infectious Diseases. 10 (10):1827

NHS Southwest Norovirus Working Group. 2009.

PHLS viral gastroenteritis working group. 2000. Management of hospital outbreaks of gastroenteritis due to small round structured viruses. Journal of Hospital Infection. 45 [1]. 1-10

Part A - Document Control

<table>
<tr><td>Policy number and Policy version:

IP18
Version 5.0</td><td>Policy Title

Norovirus Policy</td><td colspan="2">Status:

Final</td><td>Author: Infection Prevention Nurse

Chief Officer Sponsor: Chief Nurse/DIPC</td></tr>
<tr><td rowspan="7">Version / Amendment History</td><td>Version</td><td>Date</td><td>Author</td><td>Reason</td></tr>
<tr><td>1</td><td>November 2010</td><td>Lead IPN</td><td>Annual Review</td></tr>
<tr><td>2</td><td>June 2012</td><td>Lead IPN</td><td></td></tr>
<tr><td>2.1</td><td>October 2013</td><td>Infection Prevention</td><td>Updated Guidance</td></tr>
<tr><td>3</td><td>Sept 2016</td><td>Infection Prevention</td><td>Planned review</td></tr>
<tr><td>4</td><td>July 2019</td><td>Infection Prevention</td><td>Planned review</td></tr>
<tr><td>5</td><td>July 2022</td><td>Infection Prevention</td><td>Planned review</td></tr>
<tr><td colspan="5">Intended Recipients: Trust wide</td></tr>
<tr><td colspan="5">Consultation Group / Role Titles and Date:

Infection Prevention Team/Consultant Microbiologists March 2022
Infection Prevention & Control Group June 2022</td></tr>
<tr><td colspan="2">Name and date of Trust level group where reviewed</td><td colspan="3">Trust Policy Group September 2022</td></tr>
<tr><td colspan="2">Name and date of final approval committee</td><td colspan="3">Trust Management Committee September 2022</td></tr>
<tr><td colspan="2">Date of Policy issue</td><td colspan="3">October 2022</td></tr>
<tr><td colspan="2">Review Date and Frequency (standard review frequency is 3 yearly, unless otherwise indicated – see section 3.8.1 of Attachment 1)</td><td colspan="3">September 2025</td></tr>
<tr><td colspan="5">Training and Dissemination: The approved policy can be found on the Trust Intranet system

Managers and Matrons will be informed of the launch and any revisions to the policy.

Basic Training will be provided on induction through the local induction process.
Further training will be arranged in response to audit findings</td></tr>
<tr><td colspan="5">Publishing Requirements: Can this document be published on the Trust's public page:

Yes / No</td></tr>
</table>

To be read in conjunction with: Outbreak Policy IP 13, Hand Hygiene Policy IP01	
Initial Equality Impact Assessment (all policies): Completed Yes **Full Equality Impact assessment (as required): Completed Yes** If you require this document in an alternative format e.g., larger print please contact Policy Administrator 8904	
Monitoring arrangements and Committee	Infection Prevention & Control Group (IPCG)
Document summary/key issues covered. Discusses the management of suspected and confirmed Norovirus.	
Key words for intranet searching purposes	Norovirus
High Risk Policy? **Definition:** • Contains information in the public domain that may present additional risk to the public e.g., contains detailed images of means of strangulation. • References to individually identifiable cases. • References to commercially sensitive or confidential systems. If a policy is high risk, it will be the responsibility of the author and chief officer sponsor to ensure it is redacted to the requestee.	**No (delete as appropriate)** If yes include the following sentence and relevant information in the Intended Recipients section above – If this is policy is made available to the public the following information should be redacted:

Part B **Ratification Assurance Statement**

Name of document:

Name of author: Emma Spooner Job Title: Senior Infection Prevention Nurse

I, the above-named author confirms that:

- The Policy presented for ratification meets all legislative, best practice and other guidance issued and known to me at the time of development of the said document.

- I am not aware of any omissions to the said document, and I will bring to the attention of the Executive Director any information which may affect the validity of the document presented as soon as this becomes known.

- The document meets the requirements as outlined in the document entitled Governance of Trust- wide Strategy/Policy/Procedure/Guidelines and Local Procedure and Guidelines (OP01).

- The document meets the requirements of the NHSLA Risk Management Standards to achieve as a minimum level 2 compliance, where applicable.

- I have undertaken appropriate and thorough consultation on this document, and I have detailed the names of those individuals who responded as part of the consultation within the document. I have also fed back to responders to the consultation on the changes made to the document following consultation.

- I will send the document and signed ratification checklist to the Policy Administrator for publication at my earliest opportunity following ratification.

- I will keep this document under review and ensure that it is reviewed prior to the review date.

Signature of Author: E Spooner

Date: 29th July 2022

Name of Person Ratifying this document (Chief Officer or Nominee):
Job Title:
Signature:

- I, the named Chief Officer (or their nominee) am responsible for the overall good governance and management of this document including its timely review and updates and confirming a new author should the current post-holder/author change.

To the person approving this document:

Please ensure this page has been completed correctly, then print, sign, and email this page only to:
The Policy Administrator

IMPLEMENTATION PLAN

Title of document:	**IP18 Norovirus policy**		
Reviewing Group	**Infection Prevention and Control Group**		**Date reviewed: July 2022**
Previous document already in use?	**Yes**	**Implementation lead: Print name and contact details**	**Emma Spooner Senior Infection Prevention Ext 88294**
If yes, state name, in what format and where located?	Trust Policy on Intranet		

Implementation issues to be considered (add additional issues where necessary)

Implementation Issue	Action Summary	Action lead / s (Timescale for completion)
Strategy; **Consider** (if appropriate) 1. Development of a pocket guide of strategy aims for staff 2. Include responsibilities of staff in relation to strategy in pocket guide.	Policy awareness delivered as part of monthly IP Trust induction session	Infection Prevention Team
Training; Consider 1. Mandatory training approval process 2. Completion of mandatory training form	Training as above Policy on intranet	Revised policy to be uploaded to Trust intranet following TMC approval
Development of Forms, leaflets etc; Consider 1. Type 2. Quantity required 3. Where they will be kept / accessed 4. Where stored when completed	Not required	
Strategy / Policy / Procedure communication; Consider 1. Key communication messages from the policy / procedure, who to and how?	Training as above Policy on intranet	Communicated at Senior Managers Briefing and at Matron Group for awareness Revised policy to be uploaded to Trust intranet following TMC approval Trust wide comms
Financial cost implementation Consider 1. Business case development	Not required	
Other specific Policy issues / actions as required e.g., Risks of failure to implement, gaps or barriers to implementation	Failure to implement is a risk of outbreak and to business continuity within RWT	

Appendix 1

What is Norovirus?

Introduction

Norovirus is a major cause of acute gastroenteritis and diarrhoea in children and adults. The disease is often termed Winter Vomiting Disease because of the increased prevalence in the winter months; however, it can be detected throughout the year.

Norovirus is the most common cause of outbreaks of gastroenteritis in hospitals and can also cause outbreaks in other settings including schools, nursing homes and cruise ships. Hospital outbreaks often cause major disruption in hospital activity resulting in ward closures, cancelled admissions and delayed discharges which can significantly reduce clinical activity for the duration of the outbreak.

Failure to observe and comply with infection prevention guidelines and policy can lead to further spread of infection and a delay in the hospital returning to normal activity. Outbreaks can affect both patients and staff, sometimes with attack rates in excess of 50%. This can lead to staff shortages, which can be severe, particularly if several wards are involved at the same time. It is therefore essential that cases are detected early and isolated appropriately to prevent spread and a major outbreak.

Incubation period: usually 24 to 48 hours

Common clinical features: the disease is characterised by a sudden acute onset of the following features.

- Vomiting is the predominant symptom, often projectile, and is seen in 50% of cases. However, clusters can occur where vomiting is infrequent or absent.
- Watery diarrhoea and abdominal cramps.
- Nausea.
- In addition, some people may have a raised temperature, headaches, myalgia, and malaise.
- Symptoms last between 1 to 3 days; and recovery is usually rapid.
- Dehydration is the most common complication, especially for the very young and elderly.

Reservoir: human gastrointestinal tract.

Transmission: norovirus is highly contagious; it is estimated that around 30 million viral particles are released during one vomiting incident. It only takes around 100 of these particles to cause illness. Noroviruses are transmitted primarily through the faecal-oral route either by person to person or via contaminated food or water. In addition, norovirus can be spread via aerosols dissemination of infected particles following vomiting. Transmission can also occur through hand transfer of the virus to the oral mucosa following contact with environmental surfaces, fomites and equipment which have been contaminated with either faeces or vomit. The virus can survive for up to **12 days** on some surfaces.

Infectivity: infectivity lasts for 48 hours after resolution of symptoms. The infective dose is extremely low.

Water borne: although waterborne outbreaks are far less common than food borne outbreaks, norovirus gastroenteritis outbreaks have been associated with sources of contaminated water, including municipal water, well water, steam water, commercial ice, lake water and swimming pool water. Prevention methods should focus on reducing human waste contamination of water supplies. Preventive measures should be taken to reduce the risk of contamination, including adequate chlorination of the water and supervision of the chlorination system, the frequent replacement of the water, especially after hot days with heavy use, and the presence of adequate, clean sanitary facilities.

Food borne: any food item can potentially transmit if handled by an infected or contaminated food handler (secondary food borne spread). Because of the low infective dose of norovirus and the high concentration of virus in the stool, even a limited contamination can result in substantial outbreaks. Ready-to-eat foods that require handling but no subsequent cooking e.g., salads and deli sandwiches pose greater risk. Food handlers should be excluded for 72 hours.

Diagnosis: norovirus may be suspected clinically in patients and staff with a history of vomiting of sudden onset followed by diarrhoea. During an outbreak, several people are commonly affected over a short space of time and cases with typical features may be ascribed to norovirus infection without further testing. Confirmation of norovirus infection depends on a PCR test performed on faecal samples, which is useful in confirming the nature of an outbreak early on, identifying atypical or outlying cases and in determining whether norovirus shedding is occurring in cases of persistent diarrhoea.

Sampling when an outbreak is suspected, it is imperative to institute infection control measures immediately **without** waiting for virological confirmation from stool testing. Unformed faecal specimens (not formed stools) type six or seven on the Bristol Stool Chart should be collected from symptomatic individuals within 3 days of the onset of symptoms. Stool samples obtained at the acute phase of illness (48 to 72 hours) are preferred and serial stool samples can increase the chance of detecting the virus.

Clinical care implications: there is no specific treatment for norovirus apart from letting the illness run its course. It is important to drink plenty of fluids to prevent dehydration especially in the very young or elderly to prevent further complicating those individuals. Non-specific symptoms including thirst, anorexia, lethargy, and vertigo could persist for up to 19 days in the elderly. The persistence of these non-specific symptoms raises issues of delayed recovery in the elderly and could have other adverse consequences such as a risk of falls for those suffering vertigo.

Risk factors: location, increased risk for general medical units, care of the elderly and orthopaedic wards. Increased risk for acute hospitals compared to community hospitals. Having a previous outbreak is associated with an increased risk. Risk can be elevated in the month after a hospital unit recovers from an outbreak compared to other areas.

Appendix 2

The Royal Wolverhampton NHS Trust

Is it a Norovirus Outbreak?
A decision tree to help clinical staff

Outbreaks can start abruptly and spread quickly - to minimise their impact on patients and the hospital they must be recognised, reported and controlled very swiftly. This flow chart will help you make the right decision.

A patient develops diarrhoea and / or vomiting. An infectious cause is possible - is it part of an outbreak?

Yes

Isolate symptomatic patient in a single room with the door closed to reduce risk of cross-transmission

Is there anyone else on the ward (patient or staff) with diarrhoea or vomiting?

Yes

No

Are two or more of these "Norovirus Outbreak markers" present?

Symptom onset was sudden

- Vomiting is projectile,
- Diarrhoea is watery and not blood stained,
- Symptomatic patients have not had laxatives or enemas within past 48hrs,
- Negative stool for C. diff, Salmonella, E.coli O157, Cryptosporidium, Shigella and Campylobacter, but don't wait for results before reporting a suspected outbreak).

Not an outbreak (yet)

- Isolate the patient,
- Start contact precautions,
- Send a stool sample to bacteriology and virology,
- Be extra vigilant for other patients or staff developing symptoms,
- Continue to monitor the patients' condition,
- Send symptomatic staff home

Yes

No

Likely to be a Norovirus Outbreak

- Alert the Infection Prevention Team
- Isolate the patient
- Send a stool sample to bacteriology and virology,
- Contact precautions for all symptomatic patients, send symptomatic staff home,
- Staff Norovirus Outbreak Data Record for all symptomatic cases,

Less likely to be Norovirus

- Isolate the patients(s) if possible,
- Use contact precautions,
- Send stool samples for culture,
- Consider other causes of diarrhoea such as antibiotics, laxativesm constipation, food related etc,
- Call the IPT if you are concerned or if the situation changes,

MI 352910

Appendix 3

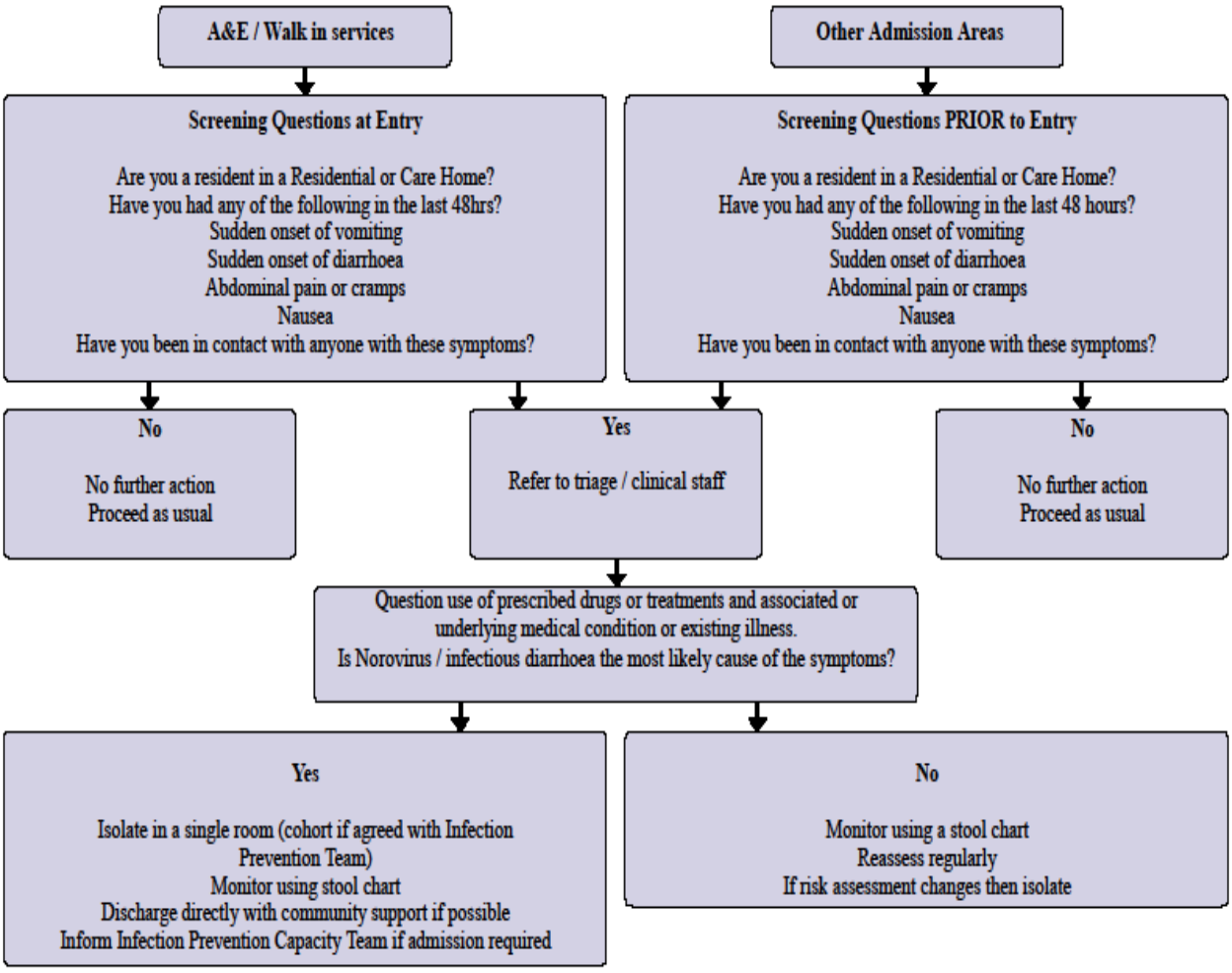
HCAI Outbreaks / Incidents Risk Matrix

Criteria	Quantification Criteria	Risk Category	Action Required
3 or more met	Death and / or serious illness Major implications for public health Exceptional or unusual infection episode Major disruption of health and / or public services Major public anxiety and concern	High risk	Implement area major outbreak plan
1 or 2 met	Death and / or serious illness Major implications for public health Exceptional infection episode Major disruption of health and / or public services Major public anxiety and concern	Moderate risk	Implement Divisional / Area Outbreak plan Full outbreak committee
3 or more met	Serious illness and / or moderate infection episode and / or cases Moderate impact on public health Short-term disruption of health and / or public services Moderate public anxiety and concern	Low risk	Implement Divisional / Area outbreak plan IPT
All 4 met	Minimal infection episode and / or case Minimal impact on public health Minimal disruption of health and / or public services Minimal public anxiety and concern	Very low risk	Implementation IPT investigation

Watt Report 2002

Appendix 4

NHS West Midlands Complied Norovirus Toolkit
Emergency Portal Screening



Appendix 5

Outbreak Control Group

Terms of Reference

Name of Meeting	Outbreak Control Group
Trust Strategic	1. Create a culture of compassion, safety, and quality. 2. The Group will gain assurance that the risk of healthcare associated infection is minimised to the lowest possible level.
Meeting Purpose/Remit	The purposes of this Group are to provide immediate response and action to an outbreak as defined in the policy, to provide ongoing monitoring and review of the action plan until the outbreak is resolved, and to initiate the SI / Major Incident policy as required.
Responsibilities	1. Facilitate the optimal clinical care of patients. 2. Investigate the source and cause of the outbreak. 3. Review the adequacy of financial, staff and other resources to control the outbreak and prevent any such occurrences where possible. 4. Implement the measures required to control the outbreak. 5. Act as a focus for communication during the outbreak. 6. Provide clear guidelines for communications with patients / visitors / public. 7. Monitor the effectiveness of control measures. 8. Evaluate the overall experience of the outbreak including the need for any de-brief sessions. 9. Ensure that the outbreak is reported in line with national and local recommendations. 10. Escalate the outbreak to SI / Major incident as required. 11. Inform the Consultant of Communicable Diseases Control (CCDC) and Director of Public Health. 12. Receive concerns on matters preventing the control of the outbreak and facilitate their resolve.
Meeting procedure	IPT will explain the nature of the outbreak and direct management of the outbreak. The Chair will remind the representatives of each discipline that they are now personally responsible for the work of that discipline in the management of the outbreak and dissemination of information.

	Formal consideration will be given to the need to seek outside assistance e.g., Public Health. At the close of the meeting the Chair will determine the date, time of the next meeting. IPT to confirm venue for next meeting.
Authority & Accountabilities	The Outbreak Control Group is accountable to the Infection Prevention and Control Group for the delivery of its Terms of Reference (TOR).
Reporting Arrangements	Monthly reports to the Infection Prevention and Control Group whilst outbreak activity occurs.
Membership	Chief Nurse Director of Infection Prevention and Control (DIPC)/ Consultant Microbiologist Infection Prevention Nurse Manager/ HoN Corporate Support Services Divisional Manager/s Divisional Head/s of Nursing Matron/s Hotel Services representation Occupational Health and Wellbeing representation Admin support
Attendance	Infection Prevention Nurse Senior Sister/ Charge Nurse Occupational Health and Wellbeing representation
Chair	Director level; Chief Nurse, Chief Operating Officer or Director of Infection Prevention and Control Vice chair – Deputy Chief Nurse, Deputy COO or HoN Corporate Support Services
Quorum	5 members must be present; - Executive Director - DIPC or Consultant Microbiologist - Matron - Infection Prevention Team member - Hotel Services representation

Frequency of meetings	Frequency dependant on outbreak activity. This will be decided at first outbreak meeting and at each meeting thereafter until resolved.
Administrative support	The Infection Prevention Team will provide administrative support. Agenda and papers will be circulated prior to the meeting – due to the nature of outbreaks, meetings are often arranged at very short notice.
Standards worked to	CQC fundamental standards of care Health and Social Care Act; Prevention and Control of Infections (2012) NHSLA Risk Management Standards H&S regulations
Standard Agenda	Separate standardised agenda used.
Subgroup reports	N/A
Date Approved	August 2018
Date Review	August 2021

Appendix 6

The Royal Wolverhampton NHS Trust

AGENDA

Date

Venue

Time

1. **Attendance**
2. **Background [including case definition]**
3. **Actions to Date**
4. **Current Situation**
5. **Recommended Control Measures**
6. **Implications of Control Measures; available resources**
7. **Action Plan**
8. **Individual Responsibilities**
9. **Communication Plan**
10. **Onwards reporting [incident form/Serious untoward incident]**
11. **Any Other Business**
12. **Date and time of next meeting**

Appendix 7

Toolkit checklist of actions

Checklist of actions for a single case of diarrhoea and vomiting

- Isolate the patient in a single room for direct admissions (but seek advice from IPT before moving from a bay to single room during winter where norovirus is more common and there is a risk that transmission may have already occurred).
- Provide separate toilet facilities.
- Record date and time of symptoms, using the Bristol Stool Chart record each stool movement.
- Inform medical staff and IPT.
- Provided liquid soap and paper towels for hand washing.
- Provided appropriate alcohol-based hand rub for staff.
- Encourage patient to wash their hands after going to the toilet and prior to eating or drinking.
- Advise staff of need to increase their hand washing.
- **Stop** all laxatives and anti-diarrhoeal medication.
- Obtain a stool sample and request norovirus testing.
- Increase cleaning of toilet / commode to three times a day, using concentrated disinfectant (hypochlorite solution 1000 ppm) So-Chlor ®.
- Place soiled linen in a red alginate bag, then a white outer bag.
- Clean patient bed space every day, wipe down all wipeable surfaces especially door handles, toilet handles etc. with concentrated disinfectant SoChlor®.
- Place all clinical waste such as incontinence pads, gloves, aprons, and hand towels in an orange clinical waste bag.
- Patient are considered clear after 72 hours symptoms free.
- Terminally clean the bay, include change of curtains, using Hydrogen Peroxide Vapour (HPV).
- HPV decontamination to be arranged with Housekeeping as directed by Infection Prevention Team. Curtains to be replaced following HPV process.
- HPV process will be documented by Housekeeping.

Checklist of actions for two or more cases of diarrhoea and vomiting

- Cohort nurse symptomatic patients.
- Provide separate toilet facilities.

- Record date and time of symptoms on stool chart using the Bristol Stool Chart record each bowel movement.
- Inform medical staff and IPT.
- Provided liquid soap and paper towels for hand washing.
- Provided appropriate alcohol-based hand rub for staff.
- Encourage patient to wash their hands after going to the toilet and prior to eating or drinking.
- Advise staff of need to increase their hand washing.
- **Stop** all laxatives and anti-diarrhoeal medication.
- Obtain a stool sample from all symptomatic patients requesting C diff and Norovirus testing
- Increase cleaning of toilets and commodes to three times a day, using a chlorine-based product at 1000ppm
- Place soiled linen in a red alginate bag.
- Clean patient bed space every day, wipe down all wipe able surfaces especially door handles, toilet handles etc. with a chlorine-based product at 1000ppm.
- Place all clinical waste such as incontinent pads, gloves, aprons, and hand towels in an orange clinical waste bag.
- Patients are considered clear after 72 hours symptoms free.
- HPV decontamination to be arranged with Housekeeping as directed by Infection Prevention Team. Curtains to be replaced following HPV process.
- HPV process will be documented by Housekeeping.

The Royal Wolverhampton NHS Trust

Norovirus Checklist

This checklist is **intended for use by healthcare staff dealing with a suspected / continued case of gastrointestinal infection.**

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 / commode where possible
- ☐ Complete clinical assessment to confirm symptoms are infectious origin (sudden onset, projectile vomit, history of contact)
- ☐ Assess risk of other infections origin (recent antibiotics, history of travel, food history)

Initial Assessment

- ☐ Record date of onset symptoms
- ☐ Obtain specimen of stool for MC&S / Virology / C.diff as indicated
- ☐ Label specimen for viral testing and send as per local regulations following biohazard precautions
- ☐ Report suspected cases to IP 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 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 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
- ☐ Restrict visiting accordingly to local policy
- ☐ Involve communications lead and provide pre-prepared press releases to local media
- ☐ Ensure local protocol for enhanced surface cleaning using effective products
- ☐ Remove all fruit / food items

Patient and Staff Movement

- ☐ Advice on placement of further suspected cases should be sought from IP 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 patient 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 working days (>48 hrs)

72 hours after Cessation of Uncontained Symptoms / Discharge

- ☐ Decision taken with advice from IP team
- ☐ Provide patient advice re hand washing and hygiene at home
- ☐ Instigate designated area deep clean
- ☐ Change curtains and all linen items
- ☐ Complete deep / final clean checklist prior to opening to further admissions

MI 359110

The Royal Wolverhampton NHS
NHS Trust

Outbreak form (Patients)

Week commencing..... Hospital..... Ward .....

Name and Patient Number	Bed / Bay	Specimen date	Relevant clinical Details / Symptoms	Mon			Tues			Wed			Th			Fri			Sat			Sun		
				N	M	E	N	M	E	N	M	E	N	M	E	N	M	E	N	M	E	N	M	E

Key: D = Diarrhoea V = Vomiting
N = Night 21.00 - 6.00hrs
M = Morning 06.00 - 13.00hrs
E = Evening 13.00 - 21.00hrs

WCA 1959 26.09.13 V1.01

Appendix 10

The Royal Wolverhampton NHS Trust

Outbreak form (Staff)

Hospital..... Ward .....

Name	Job Title	Last day on duty	Symptoms	Start of Symptoms	End of Symptoms	Specimen Submission Date

MI 358810

Appendix 11

IP Assessment Form

Information the IPT will require on each patient to assist in the assessment of suspected viral gastroenteritis.

Patient Details: Affix patient sticky label

Sign: **Name:**

Date: **Ward:**

1	Date and time of onset of symptoms	
2	Diarrhoea – explosive, offensive, no warning, Bristol Stool type?	
3	Vomiting – more than one-episode, continued retching	
4	Has the patient had antibiotics? If so, please list	
5	Has the patient had aperients?	
6	Does the patient have a pre-existing medical condition which might predispose them to loose stools?	
7	Is this the patient's normal bowel habit?	
8	Is the patient feverish? If so, what is their temperature?	
9	Has a specimen been obtained? Is so date sent?	
10	Has the patient been exposed to symptomatic relatives / patients / staff?	
11	Which bed is the patient occupying?	
12	Are any family members affected?	
13	Has the patient been reviewed by the medical team to exclude any other clinical cause?	
14	Is the patient receiving naso-gastric feed / TPN	
15	Is the patient constipated and could this be overflow?	
16	Is the patient on any medications which may cause loose stools? If so, please list	

Appendix 12

Frequently Asked Questions

What are Noroviruses?

Noroviruses are a group of viruses that are the most common cause of gastroenteritis in England and Wales. In the past, noroviruses have also been called ‘winter vomiting viruses’, ‘small round structured viruses’ or ‘Norwalk-like viruses’.

How does norovirus spread?

The virus is easily transmitted from one person to another. It can be transmitted by contact with an infection person, by consuming contaminated food or water, or by contact with contaminated surfaces or objects.

What are the symptoms?

The symptoms of norovirus infection will begin around 12 to 48 hours after becoming infected. The illness is self-limiting, and the symptoms will last for 12 to 60 hours (mean duration). They will start with the sudden onset of nausea followed by projectile vomiting, and watery diarrhoea. Some people may have a raised temperature, headaches, and aching limbs. Most people make a full recovery within 1 to 2 days, however some people, usually the very young or elderly, may become dehydrated and require hospital treatment.

Why does norovirus often cause outbreaks?

Norovirus often causes outbreaks because it is easily spread from one person to another, and the virus can survive in the environment for many days. Because there are many different strains of norovirus, and immunity is short-lived, outbreaks tend to affect more than 50% of susceptible people. Outbreaks usually tend to affect people who are in semi-closed environments such as hospitals, nursing homes, schools, and cruise ships.

How can these outbreaks be stopped?

Outbreaks can be difficult to control and long lasting because norovirus is easily transmitted from one person to another, and the virus can survive in the environment. The most effective way to respond to an outbreak is to disinfect contaminated areas, to establish good hygiene, including hand washing and to provide advice on food handling. Those who have been infected must be isolated for up to 48 hours after their symptoms have ceased.

How is norovirus treated?

There is no specific treatment for norovirus apart from letting the illness run its course. It is important to drink plenty of fluids to prevent dehydration.

If I am suffering from norovirus, how can I prevent others from becoming infected?

Good hygiene is important in preventing others from becoming infected;

this includes thorough hand washing before and after contact. Food preparation must also be avoided until 48 hours after the symptoms have subsided.

Who is at risk of getting norovirus?

There is no one specific group who are at risk of contracting norovirus; it affects people of all ages. The very young and elderly must take extra care if infected, as dehydration is more common in these age groups.

Outbreaks, of norovirus are reported frequently in semi-closed establishments such as health and social care establishments, schools, and hotels. In fact, anywhere where there is a possibility for large number of people to congregate for periods of several days.

Healthcare settings tend to be particularly affected by outbreaks of norovirus. A study done previously by the Health Protection Agency showed that outbreaks are shortened when control measures in healthcare settings are implemented quickly, such as closing wards to new admission within 4 days of the beginning of the outbreak and implementing strict hygiene measures.

How common is norovirus?

Norovirus is not a notifiable disease, it is estimated that norovirus affects between 600, 000 and 1,000,000 people per year in the UK.

Are there any long-term effects?

No, there are no long-term effects from norovirus.

What can be done to prevent infection?

It is impossible to prevent infection; however, taking good hygiene measures, such as frequent hand washing around someone who is infected is important. Certain measures can be taken in the event of an outbreak, including the implementation of basic hygiene and food handling measures and prompt disinfection of contaminated area, and the isolation of those infected for 48 hours after they symptoms have ceased.

(PHE 2012)

Emergency Portals Escalation Procedure for Management / Communication of Suspected Case of Norovirus

Triggers	Action	By whom	Response
Cases confined to single bays	• Affected bay closed to admission	• Senior Sister/Charge Nurse after discussion with IP team / microbiologist	
	• Inform relevant operational staff i.e., IP team, Matron, Integrated Health, and Social Care Team	• Senior Sister/Charge Nurse	
	• IP Team to review closed areas daily including weekends	• IPT	Provide information related to the number of symptomatic and asymptomatic patients at the daily bed meeting An electronic update will be provided at least daily and forwarded to the Director Managers / Matrons / Divisional Team / Integrated Health and Social Care team for operational use
	• Inform partner organisations i.e., Public Health	• IPT	
	• No transfers out from bay to other wards or hospitals except for urgent clinical need	• Senior Sister/Charge Nurse and staff • Inform IPT	

	• Enhanced cleaning in affected bay, using chlorine at1.000ppm [environment and medical equipment]	• Hotel Services / Nursing staff	Ward own team and relief team to be mobilised to instigate enhanced cleaning
	• Provide information on current situation to the IP team • Record on outbreak monitoring document	• Senior Sister/Charge Nurse and staff	Senior Sister/Charge Nurse and staff
	• No transfer of patients to Residential / Nursing Homes	• Ward staff to discuss with IPT • IPT to assess suitability for transfer	IPT to assess suitability for transfer and liaise with care home
	• Can still admit to rest of the ward		

	Follow actions given above in addition: • Close ward if more than half the ward is affected i.e., 2 bays or more in a 4-bay ward	• Senior Sister/Charge Nurse after discussion with IPT / Microbiologist	IPT to review closed areas daily including weekends
	• Inform partner organisations i.e., Public Health, CCG	• IPT	

Cases not confined to a single bay	• Identify suitable accommodation to receive emergencies	• Chief Operating Officer • Director on call	
	• IP Team to review closed areas daily including weekends	• IPT	Provide information related to the number of symptomatic and asymptomatic patients at the daily bed meeting
	• Inform relevant operational staff i.e., IP team, Matron, Integrated Health, and Social Care Team	• Senior Sister/Charge Nurse / staff	
	• Assess current Trust wide bed state	• Integrated Health and Social Care Team	
	• Restricted visiting-after discussion at outbreak meeting	• Senior Sister/Charge Nurse / staff	
	• Raise Trust awareness of closure	• Trust communication	

	• Raise public awareness of closure	• Issue patient / visitors with Trust closure letter	Ward/Departmental staff
	• Information on ward closure cascaded across the Health Care Economy	• Integrated Health and Social Care team • Trust communication • ED coordinator • AHP Manager • IPT	Internal communication Ambulance Service External communication i.e., Public Health, CCG
	• Information related to admissions to the Trust reserved for patients who need acute care for whom use of other healthcare facilities or admission avoidance is clinically inappropriate	• UKHSA	Cascade letters to GP's facilitate admission avoidance where clinically appropriate

Appendix 14

Trust-wide escalation procedure for the management of suspected/confirmed norovirus outbreak

<table>
<tr><th colspan="3">Level 1</th></tr>
<tr><td>Level 1 Alert– Normal working
• Known outbreaks in the community
• No outbreaks within the Trust
• Potential for cases to be admitted via the emergency portals i.e., ED, AMU</td><td>←</td><td>Response
• Integrated Health and Social Care team/Matrons/On-call manager via daily bed meeting
• Cascade information to admission areas
• All patients that present a risk of norovirus e.g., present with symptoms of diarrhoea and/or vomiting or a have been in contact with others with diarrhoea and vomiting within the previous 72 hours, are admitted directly to a single side room and isolated
• Inform communication team
• Placement of posters at entrances to hospital/wards
• All wards informed that responsible visiting is in place
• If patients admitted with symptoms are contained and there is no spread to existing in patients, status remains at GREEN</td></tr>
<tr><td>↓</td><td></td><td>↑</td></tr>
<tr><td>Actions
• Raise awareness that norovirus is present in the community to ensure all patients admitted with diarrhoea and/or vomiting or who have had contact with anyone with diarrhoea and/or vomiting in preceding 72 hours
• Initiate responsible visiting, visitors asked not to visit if they have had symptoms or contact with someone with symptoms within the last 72 hours</td><td>→</td><td>By whom
• IPT
• Matrons
• Nurse in Charge and ward staff</td></tr>
</table>

Level 2		
Level 2 Alert- Trust experiencing some pressure • 2 suspected cases on 1 or 2 wards • Cases confined to single bays	←	**Response** • Inform relevant operational staff i.e., Matron, Senior Sister/Charge Nurse/Department Manager, DIPC, Hotel Services, Divisional Manager, Divisional Director, Director of Nursing • Inform partner organisations according to county escalation plan i.e., UKHSA • Assessment of risk and liaison with IPT • Hotel Services to be mobilised to instigate enhances cleaning • If cases contained and resolve without spread return to **GREEN** • If cases spread out of bays to rest of the ward move to **AMBER**
↓	→	↑
Actions • As per level 1 as well as the following: • Affected bay closed to admission, admit to rest of ward • No transfer, except for urgent clinical needs • Discuss with IPT transfer to Care Homes • Enhanced cleaning in affected bay as per norovirus outbreak policy • Instigate outbreak monitoring		**Whom** • IPT • Hotel Services • Nurse in Charge and ward staff • Integrated Health and Social Care Team

Level 3

Level 3 Alert - Trust experiencing prolonged pressure, maintaining business continuity

- Suspected cases on 1 or 2 wards
- Not confined to single bay

Response

- Liaise with Chair of OC, UKHSA, Divisional managers and IPT
- Assess ward(s) affected and likely duration of outbreak
- Assess current Trust wide bed state. Liaise with community bed status. All relevant personnel to provide feedback to the OC with outcomes of identified actions as per the Trust Bed Management Escalation plan.
- Initiate alert emails to Trust, Community, and secondary care providers
- Include information on Trust public website regarding wards closed
- Daily update on ward closures on intranet,
- If wards are resolved without further spread return to **GREEN**
- If spread to further wards move to **RED**

Actions

- As per level 1 and 2, as well as the following:
- Close ward(s) and instigate outbreak policy
- Convene outbreak meeting and establish actions to reduce impact on bed capacity
- Provided information on current situation
- IPT: details of closed ward(s)
- Integrated Health and Social Care Team: Trust wide and community bed state
- If bed capacity is at

By whom

- IPT
- DIPC
- Ward Staff
- Integrated Health and Social Care Team
- Communication Team
- Switchboard
- Public Health England
- On-call managers

Amber or Red initiate appropriate section of Trust bed management escalation plan • Information on ward closures cascaded to wider health economy • Raise public awareness of the outbreak to reduce unnecessary visitors to the Trust • Information on ward closures cascaded across the Trust • Admissions to the Trust retained for patients who need acute care for whom use of other healthcare facilities or admission avoidance is clinically inappropriate	

Level 4		
Level 4 Alert		**Response**
• • 3 or more wards affected/closed	←	• Invite UKHSA to OC • IPT to review closed wards daily, including weekends, assess if they are at a similar stage of the outbreak • All relevant personnel to provide feedback with outcomes of identified actions as per Trust bed management escalation plan • Placement of restricted visiting posters at entrances to hospital and wards • Public announcement via local radio and press • Update public website with information • Categorise patients on closed wards into a) confirmed norovirus and resolved, b) currently symptomatic, c) never had symptoms and incubating • Assess clinical risk of current shortfall in bed capacity • If ward resolve without spread to any further wards return to **GREEN** • Initiate RCA investigation
↓	→	↑
Action		**By whom**
• As for level 1, 2, and 3, as well as the following: • Convene daily outbreak meetings and establish actions to address/reduce bed capacity • Provided information on current situation, daily assessment of closed wards • IPT to provide details of ongoing advice to closed wards including at weekends • Current number of empty beds on each		• IPT • Integrated Health and Social Care Team • Communication Team • On-call Managers • Matrons • Ward Staff

closed ward, number of non-movers e.g., nursing home patients • Initiate bed escalation plan according to shortfall • Consider cohorting of closed wards • Restricted visiting to be initiated • No visitors on closed wards without prior agreement with Nurse in Charge • Complete SI	

Appendix 15

Infection Prevention and Control Team
Diarrhoea and Vomiting Outbreak Notification
To be used in conjunction with the Care Pathway for patients with acute diarrhoea and vomiting requiring subcutaneous fluids in Community Care Homes

Outbreak Call Log Number (PHE)	
UKHSA Incident Number	

Definition of an outbreak

- Two or more associated cases.
- A greater than expected rate of infection compared with the usual background rate for the place and time where the outbreak has occurred.
- A single case of certain diseases such as diphtheria, rabies, viral haemorrhagic fever, or polio.
- In some circumstances a suspected, anticipated, or actual incident involving microbial or chemical contamination of food or water may lead to activation of the plan.

Process for IPCN to follow:
Notify lead nurse
Refer to Outbreak Policy (IP13)
Contact UKHSA for log number (0344 225 3560 opt 2)
Contact Environmental Health Officer on 01902 552079 or email on Environmentalhealth@wolverhampton.gov.uk
Inform On Call Consultant Microbiologist (8249)
West Midlands Ambulance Trust email on Karl.Mcgilligan@wmas.nhs.uk or via WMAS switchboard 01384 215555
RWH cascade email to be sent out

Date	
IPT staff member notified	
Name of staff member reporting from care home	
Name of Home	
Address of care home	
Telephone Number	

What symptoms present?	
Food History	
No of resident's symptomatic (at time of report)	
No of staff symptomatic (at time of report)	
Date of onset	
Time of onset	
To complete data sheet with patient specific symptoms and sent to Infection Prevention by email daily by 10.00am.	

PHE requirement (IPT to notify PHE)	
Total bed capacity	
Bed occupancy at present	
Number of staff employed	

IPT advice (dependent upon symptoms) **Sign when completed**	
Advice for Diarrhoea & Vomiting	**Signature**
Isolate (where appropriate)/ reverse isolation	
Stool specimens ASAP (staff & residents)	Requested as applicable

Check patient medical history- **No history of previous Clostridium *difficile***	
Hand Hygiene (not gel)	Advised soap and water hand decontamination residents, staff, and visitors
Patient hand hygiene before meals/after toilet	Advised
Environmental cleanliness (door handles/toilets/commodes)	Advised
Patients own equipment (not shared if possible)	Advised
Inform GPs involved with home Name of GP Surgeries involved	Advised
PPE	Advised
Closed to admissions and discharges	Advised
Restrict visitors where possible (advise in visitors' best interests not to visit whilst outbreak ongoing)	Advised
No of residents affected	
No of staff affected	
No of Samples submitted	
Confirmation of cause	

Daily Summary Report: Please make a daily log of events which can be sent to IP as a report after the outbreak is resolved.

Day 1 XX/XX/XX
XX/XX resident
XX/XX staff