



# POLICY FOR THE MANAGEMENT OF HOSPITAL OUTBREAKS OF NOROVIRUS

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Staff/Groups Consulted	Infection Control Doctor Medical Director Director of Infection Prevention and Control Deputy Chief Nurse Matrons Infection Prevention Control team		
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## **1. RATIONALE**

- 1.1. Noroviruses are the most common cause of hospital outbreaks of viral gastroenteritis. The virus is highly contagious and easily transmitted from person to person.
- 1.2. Early identification and isolation of patients with suspected Norovirus and early instigation of placing bays or wards under restricted access is key to the control and prevention of further spread.
- 1.3. The Infection Prevention & Control Team (IPCT) is responsible for reviewing bays and wards with suspected outbreaks of Norovirus, and advising when a bay or ward should be placed under restricted access. Out of hours advice should be sought from the on call Microbiologist.
- 1.4. When a bay or ward is placed under restricted access due to a Norovirus outbreak, Healthcare Workers must follow the precautions detailed in this policy. This includes scrupulous hand hygiene, enhanced cleaning of the ward and keeping movement to and from the affected ward to a minimum.
- 1.5. The IPCT will regularly review restricted access bays or wards and assess when a bay or ward can be re-opened. This will normally be when there have been no new cases or patients with uncontained vomiting or diarrhoea (i.e. patient not in side room) for 72 hours.
- 1.6. A thorough terminal clean of the bay or ward must be carried out and the area checked and signed off by a Matron/CSM before the restricted access can be lifted. In the absence of a Matron/CSM, the Nurse in Charge can sign off.

## **2. AIM**

- 2.1. The incidence of Norovirus in the community is thought to be 16.5% of the 17 million cases of infectious Intestinal Disease in England per year, and accounts for 3000 hospital admissions annually. The virus is highly contagious, with an incubation period of up to 72 hours. Hospital outbreaks often lead to ward areas being placed under restricted access, causing major disruption to hospital activity. It is therefore important that as soon as an outbreak is suspected the appropriate actions and control measures are taken.
- 2.2. The aim of this policy is to detail the infection control management for hospital outbreaks of Norovirus, the actions to be taken to reduce the risk of further transmission, and to minimise the level of disruption to the Trust and patient services.

## **3. DEFINITION OF TERMS**

- 3.1. Norovirus - a small round structured virus, which is a common cause of viral gastro-intestinal infection. The virus is extremely infectious and outbreaks are common in closed environments.
- 3.2. Polymerase Chain Reaction (PCR) - a procedure used in the microbiology laboratory to amplify the genetic material of organisms, in order to identify the presence of a specific pathogen. These tests are very sensitive and results can be available within a few hours.
- 3.3. Hospital Outbreak of Norovirus - 2 or more cases on the same ward within a 48 hour period, usually diagnosed on clinical grounds from their characteristic epidemiological features.

- 3.4. Source Isolation - placement of a patient suffering from a communicable/infectious disease in a single room to prevent the spread of infection to others.

#### **4. DUTIES AND RESPONSIBILITIES**

- 4.1. In addition to ensuring that the infection prevention and control (IP&C) precautions detailed in this policy are followed, when a ward or bay is placed under restricted access due to suspected outbreaks of Norovirus specific duties and responsibilities include:

##### **4.2. Ward Manager or Deputy**

- Informing IP&C of suspected outbreaks of Norovirus. Out of hours the Clinical Site Manager (CSM) must be informed.
- Monitoring that the staff working on or visiting an outbreak restricted area are following the IP&C precautions detailed in this policy.
- Ensuring there are sufficient cleaning staff in outbreak restricted areas to carry out the daily enhanced cleaning. Escalating staff shortages to the Senior Housekeeping & Domestic Supervisor and Matron.
- Attending outbreak meetings as required.

##### **4.3. Infection Prevention and Control Team**

- Assessing wards with suspected outbreaks of Norovirus, and advising when bays or wards should be placed under restricted access or when restrictions can be lifted.
- Providing an agreed on call service out of hours.
- Regularly reviewing outbreak restricted areas and advising on IP&C management to reduce the risk of spread.
- Monitoring Norovirus activity in the local community and advising CSM and admitting areas of any Nursing/Residential homes and Community/local hospitals with Norovirus restrictions in place.
- Communication to relevant Trust staff and visitors when a bay or ward within the Trust has restrictions in place due to an outbreak, and when these can be lifted.
- Convening outbreak meetings as required.
- Attending bed capacity meetings as required.
- Updating the Trust intranet daily with details of wards and/or bays with restricted access in place.
- Informing the CCG of any outbreaks, who will update the local Norovirus website.
- Informing Public Health England (PHE) in line with the Health Care Associated Infection Operational Guidance and Standards for Health Protection Units.

#### 4.4. **Clinical Site Manager/Matron**

- Out of hours, assessing wards with suspected outbreaks and contacting the IP&C Nurse on call or Microbiologist for advice regarding restricted access as required.
- In the absence of the IPCT, providing restricted access areas with an outbreak kit and signage via the CSM office. Request stool/vomit samples to be tested by the Laboratory via telephone number 01823 346724
- Close liaison with the IPCT during outbreaks and attending outbreak meetings as required.

#### 4.5. **Medical Staff**

- Early identification of patients with suspected Norovirus and ensuring appropriate management, including prompt isolation on an appropriate ward.
- Adherence to the IP&C precautions detailed in this guidance when a ward is under restricted access due to suspected outbreaks of Norovirus.

#### 4.6. **Matrons**

- Daily review of bays/wards with outbreak restrictions in their area, and ensuring the precautions detailed in this guidance are in place.
- Checking that a terminal clean has taken place prior to lifting the restricted access to the bay or ward and a terminal clean checklist is completed.

#### 4.7. **Deputy Facilities Manager**

- To ensure housekeeping staff are appropriately trained in the enhanced cleaning required during outbreaks.
- To ensure there are sufficient housekeepers to carry out the enhanced cleaning.
- Co-ordinate staff to undertake the terminal clean of a bay or ward prior to the lifting of the restricted access and to oversee the terminal cleaning process.

#### 4.8. **Communications Department**

- Updating the public website with details of wards and bays with restricted access and other relevant information, including details of responsible visiting and other restrictions in place as guided by IP&C.
- Formulating the necessary press releases to the public regarding affected wards, any restrictions on visiting and other information as required.

### 5. **REDUCING THE RISK OF VIRAL GASTROENTERITIS OUTBREAKS**

- 5.1. Viral gastroenteritis symptom calls to NHS Direct can provide an early warning of Norovirus outbreaks in hospitals. Issuing an alert when the proportion of vomiting

calls reaches 4.8% or more of all calls for 2 weeks in a row, can provide up to 4 weeks warning of forthcoming Norovirus pressures on the health service (Loveridge et al 2010).

- 5.2. In the event of a national increase this information is published weekly in the NHS Direct Symptom Surveillance Bulletin and is available at [http://www.hpa.org.uk/infections/topics\\_az/primary\\_care\\_surveillance/default.htm](http://www.hpa.org.uk/infections/topics_az/primary_care_surveillance/default.htm). When vomiting calls to NHS Direct reaches 4.8% of all calls, the following actions should be put in place:
- 5.3. The IPCT will inform the CSM, Emergency Department and other admitting areas that vomiting calls to NHS Direct has reached the early warning threshold and that they should be alert for patients presenting with symptoms.
- 5.4. Any patients presenting with symptoms of Norovirus should have a rapid clinical assessment (by a senior doctor wherever possible) to ascertain whether their symptoms are likely to be due to Norovirus. See item 6 below for more information.
- 5.5. In making this assessment, close contact with others (e.g. household members) with diarrhoea and or vomiting within the last 72 hours should also be considered.
- 5.6. If the patient's symptoms are assessed as probable Norovirus, consideration should be given as to whether the patient can be safely discharged home. If a simple discharge home is not safe, the possibility of the deployment of outreach services to the patient's home to manage rehydration at home should be investigated. If hospital admission is unavoidable, the patient must be isolated in a single room. If there are wards already with outbreak restrictions in place, the patient may be admitted to a single room on one of these wards, if clinically appropriate.
- 5.7. Admission areas should identify new admissions who have had close contact (i.e. household members) with anyone with D&V in the preceding 72 hours. Wherever possible, patients identified as having close contact with a suspected case of Norovirus should be isolated until they have remained symptom free for 72 hours.
- 5.8. All staff are responsible for supporting appropriate visiting for the duration of restricted access being applied to any bay or ward across the Trust.
- 5.9. There should be no more than 2 visitors per bed during visiting times, and visitors should be actively discouraged from bringing in babies or young children.
- 5.10. All staff need to be vigilant with visitors and colleagues in promoting effective and robust hand hygiene practices.
- 5.11. Visitors should be asked not to visit patient areas if they have had any diarrhoea or vomiting in the last 48 hours.
- 5.12. Communications to the public should include the information on the Trust public website, switchboard message and posters at the main entrances to the hospital.

## **6. CRITERIA FOR SUSPECTING A NOROVIRUS OUTBREAK**

- 6.1. Outbreaks of Norovirus are usually diagnosed on clinical grounds from their characteristic epidemiological features. Such features include:
- 6.2. Two or more patients over a 48 hour period. Staff can also be affected.
- 6.3. Sudden projectile vomiting is often a prominent feature.

- 6.4. Vomiting can occur in more than 50% of cases.
- 6.5. Other symptoms include diarrhoea (type 5-7 according to the Bristol Stool Chart), headache, myalgia, malaise and low-grade fever.
- 6.6. Duration of the illness is between 12 and 60 hours.
- 6.7. There is an incubation period of 15-72 hours.
- 6.8. Outbreaks will be confirmed by the IP&C Team.

## **7. ACTION TO BE TAKEN IN THE EVENT OF A SUSPECTED OUTBREAK**

- 7.1. The following actions are informed by the national "[Guidelines for the management of norovirus outbreaks in acute and community health and social care settings](#)".
- 7.2. **Action to be taken by the nurse in charge of the Ward/Department:**
- 7.3. During normal office hours (Monday to Friday) inform the IPCT on Ext. 4401 or direct dial 5401, who will visit and assess the ward. If the suspected outbreak occurs out of office hours, inform the CSM who can, if needed, contact the on call Microbiologist for advice.
- 7.4. Information required by the IPCT, CSM and Microbiologist will include:
  - Number of patients/staff affected;
  - Date and time of onset of symptoms;
  - Diagnosis of patients affected;
  - Possible other causes of diarrhoea and/or vomiting e.g. antibiotics, laxatives, post-operative patient.
- 7.5. Where possible, isolate or cohort patients with symptoms.
- 7.6. Discuss the option of throwing any patient's soiled clothing away with the patient/relative prior to sending it home.
- 7.7. **Action to be taken by the Infection Prevention and Control Team**
- 7.8. A decision whether to place a bay or ward under restricted access will normally be made by the IPCT. Out of hours this decision will be made by the CSM or on call Microbiologist and the ward will be reviewed by the IPCT at the earliest opportunity.
- 7.9. If a bay on the ward is under restricted access and has doors which can be closed, admissions and discharges in relation to the rest of the ward may continue.
- 7.10. The IPCT or CSM will provide the ward with an outbreak kit. This includes signage for the doors of the bay, ward and main entrance, outbreak record sheets, patient and visitor leaflets and a ward check list.
- 7.11. An outbreak meeting will be convened.
- 7.12. The IPCT will inform the Microbiology laboratory of the outbreak and details of specimens that require testing for Norovirus.

## **8. CONTROL MEASURES FOR A BAY / WARD UNDER RESTRICTED ACCESS**

### **8.1. Admissions**

- The bay or ward under restricted access is generally closed to all admissions. In exceptional circumstances, it may be necessary to admit patients to a side room on a restricted access ward due to clinical need.
- Patients presenting with symptoms of Norovirus should be preferentially admitted to a single room on a restricted ward. The IPC Nurse and/or the on call Microbiologist will advise regarding the most suitable ward for such admissions.

### **8.2 Hand Hygiene**

- Effective hand hygiene is vital to prevent transmission and spread.
- Standard alcohol gel is not fully effective at eradicating Norovirus.
- When working in a bay or ward that is under restricted access, staff must wash their hands with soap and water after attending symptomatic patients and immediately before leaving the bay/ward

### **8.3 Personal Protection Equipment**

- Personal protective clothing must be worn in accordance with standard precaution guidelines.
- Gloves and aprons must be worn when attending a symptomatic patient and removed immediately afterwards and hands washed with soap and water.

### **8.4 Cleaning**

- In order to facilitate a high standard of cleaning, patient lockers and table tops must be kept as clear as possible. Patients should not keep uncovered food on lockers (e.g. fruit).
- In addition to the routine cleaning of the ward, toilets/commodes and touch surfaces such as locker tops, tables, door handles, computer keyboards, nurses station and treatment room must be cleaned twice a day with TECcare Control. UltraV to be used daily in all toilets
- Particular attention should be given to cleaning objects that are frequently handled such as taps, door handles, toilet roll holders, commodes and toilet and bath rails.
- Any surfaces contaminated with vomit or faeces must be promptly cleaned. Wearing gloves and aprons, the liquid should be absorbed in paper towelling and disposed of as clinical waste. Surfaces should then be cleaned with TECcare Control.
- Any carpets or soft furnishings contaminated with vomit or faeces should be steam cleaned immediately.



## 8.5 Discharges/ External Transfers

- Patients from bays or wards under restricted access may not be discharged to another hospital or institution (e.g. Nursing Home), unless
  - the patient has already been affected with confirmed Norovirus and has been symptom free for 72 hours
  - the transfer is required for urgent clinical need.
- Any possible transfers of patients from restricted bays or wards must first be discussed with the IPCT and the relevant receiving institution/hospital.
- Patients may be discharged to their own homes if their condition allows. If the patient has not been affected, staff should ensure that he/she is aware that there is a possibility that symptoms may develop at home.

## 8.6 Record Keeping

- The ward should keep a daily written record of all patients and members of staff who become symptomatic. This should include symptoms, date of onset, specimens sent and resolution of symptoms. Information should be recorded on the patient and staff outbreak charts and will be reviewed daily by the IPCT.

## 8.7 Specimens

- On suspecting an outbreak the IPCT (or CSM out of hours) will inform the on-call Microbiologist that samples will be sent to the lab for testing.
- Specimens of vomit/faeces should be obtained as early as possible from symptomatic patients or staff and sent to the microbiology laboratory for testing. Norovirus testing by PCR (as part of a suspected Norovirus outbreak) should be requested. The IPCT will inform the ward when specimens are no longer required.

## 8.8 Staff

- Staff with symptoms of diarrhoea and/or vomiting must not return to work for 2 full days following last symptoms.
- Movement to and from restricted access bays or wards by medical staff should be kept to a minimum, and, where possible, these areas should be visited after any other areas. Gloves and aprons should be worn for examining affected patients and hand washing performed after removal and before leaving the ward. Equipment must be cleaned after use (e.g. stethoscopes cleaned using detergent wipes, ie Clinell wipes).
- Nursing staff, housekeepers and bank/agency staff without symptoms who are permanently based on affected wards can be moved to unaffected wards the next day providing they have had no symptoms of infection. The importance of wearing a clean uniform should be reiterated.
- Physiotherapists, Occupational Therapists and other staff who are not permanently based on the affected ward should, where ever possible, be specifically assigned to affected wards and not work on unaffected wards. Where this is not logistically possible, restricted access bays/wards should be visited after other wards.

- Pharmacist and pharmacy staff who regularly visit wards should organise their workload so the affected bays/wards are visited last. If it is necessary to attend symptomatic patients, aprons and gloves must be worn and hand hygiene with soap and water performed after removal and before leaving the ward.
- ECG technicians, phlebotomists and other staff who may regularly visit a number of wards in the hospital may continue to visit affected wards, but should, wherever possible, organise their workload so the affected bays/wards are visited last. If it is necessary to attend symptomatic patients, gloves and aprons must be worn and hand hygiene performed after removal and before leaving the ward. Equipment must be cleaned with detergent wipes, ie Clinell wipes, before leaving the affected ward.
- Staff to submit any personal specimens to their registered GP surgery

### 8.9 Transfer of Patients within the Hospital

- Patients from restricted access bays or wards must not be transferred to other wards in the hospital unless this is clinically unavoidable (e.g. transfer to ICU/CCU). If a transfer does have to take place, the patient should be isolated in a side room and the IPCT informed.
- Patients requiring investigations such as X-rays/scans or surgery should not be routinely cancelled. Asymptomatic patient's investigation or surgery should go ahead as planned. For patients with active symptoms a risk assessment is required and non-urgent investigations or surgery may need to be postponed. If the clinical procedure is urgent and cannot be postponed the patient should attend the investigation or surgery as required and standard infection control practices such as PPE and hand washing adhered to.
- The following precautions should be put in place for all patients attending a department for investigation or surgery
  - The patient must not be placed in communal areas with other patients
  - If undergoing surgery, they must be recovered alone ( e.g. in the operating theatre itself or in the recovery unit alone) To achieve this without loss of theatre time the patients should be last on the operating list unless clinically inappropriate
  - If the patient develops diarrhoea or vomiting when he / she is away from the ward this should be cleaned up immediately. A full terminal clean should be performed of all surfaces and equipment.
  - Conventionally ventilated theatres must lie fallow for 15 minutes and ultra clean theatres for 5 minutes before they can be used for other patients.
  - If the patient does not have symptoms of diarrhoea or vomiting in the department or operating theatre no extra cleaning is required and normal decontamination practice should be applied.

### 8.10 Visitors

- Visiting on restricted access bays or wards should be restricted to 2 visitors per patient and should be limited to essential visitors only (e.g. close family/carers) discouraging babies and young children.

- A notice should be placed on the door/entrance to the bay advising that the ward or bay currently has restrictions in place due to Norovirus and should not be visited unless it is essential to do so.
- Visitors that are unwell or have suffered from diarrhoea and vomiting within the last 48 hours should be instructed not to visit the ward.
- Visitors should be advised of the risks associated with contact with patients on the ward and requested to wash their hands with soap and water on arrival and prior to departure.
- Norovirus Patient and Visitor Information leaflets should be made available to visitors.
- School age children and the very frail or elderly should be discouraged from visiting.

### 8.11 Communication of Bay or Ward Closures

- The IPCT will send a daily meeting/summary sheet detailing wards under restricted access, earliest opening dates and other relevant information to the CSM, on call Executive Director, relevant Divisional Directors, Directorate Managers and Matrons.
- The ward clerk will contact relatives/next of kin and explain the ward currently has restrictions in place due to Norovirus and that visiting is restricted to close family and friends. The Ward manger can allow additional visiting at his/her discretion
- The IPCT will update the Infection Control intranet page daily with details of bays or wards under restricted access.
- The Communications Department will update the public website daily with details of bays or wards under restricted access and information regarding 'responsible visiting'.
- The IPCT will send a daily external email to the CCG for them to populate their public web page.

### 8.12 Criteria for Reopening a Bay or Ward

- The ward should be opened only on advice from the IPCT.
- The ward should not normally be opened until
  - 72 hours after last uncontained vomiting and or diarrhoea (not contained within a side room)
  - The bay or ward has undergone a thorough terminal clean and the terminal clean checklist completed.
- Terminal cleaning of the ward should be carried out as per SOP ([Cleaning SOPS for Clinical Areas](#)). Cleaning should include floors, shelving, bed frames and mattresses, lockers, bed tables, windowsills, sinks, toilets, showers and baths. Any other horizontal surfaces should also be cleaned. Washing walls is not generally indicated but spot cleaning of visible soiling should be carried out.

- Particular attention should be given to cleaning objects that are frequently handled such as taps, door handles, telephones, toilet and bath rails, computer keyboards, and the nurses' station.
- Equipment such as commodes, IV stands, hoists, pressure relieving mattresses and fans should be cleaned. Visitors should be advised not to visit whilst the terminal clean is in progress.

#### 8.13 **Outbreak Meetings**

- Daily outbreak meetings will be convened by the IPCT, in line with the Hospital Outbreak Management guidelines.

#### 8.14 **Monitoring**

- During ward outbreaks the IPCT will monitor compliance with this policy. At the end of the outbreak a written report, highlighting areas of good practice and any actions required, will be produced for the bay or ward under restricted access.
- Following prolonged outbreaks of Norovirus, a 'wash up' meeting will be held to review compliance with this guidance and lessons learned. Actions will be monitored at the Infection Prevention and Control Committee.

#### 8.15 **Review**

- This policy will be reviewed in three years or sooner if there are any major changes.

### 9. **SOURCE REFERENCES AND ACKNOWLEDGEMENTS**

- 9.1. DH Norovirus Working Party (2012) [Guidelines for the management of norovirus outbreaks in acute and community health and social care settings](#)
- 9.2. Loveridge P, Cooper D, Elliot A.J, Gray.J, Large.S, Regan.M, Smith.G.E, and Lopman B (2010). Vomiting calls to NHS Direct provide an early warning of norovirus outbreaks in hospitals. *Journal of Hospital Infection* 2010: 74:385-393
- 9.3. Said M., Perl T. and Sears C. (2008) Gastrointestinal Flu: Norovirus in Health Care and Long term Care facilities. *Health Care Epidemiology* 2008 :47: 1202-08
- 9.4. [NHS Healthcare Cleaning Manual](#) (June 2009). National Patient Safety Agency.
- 9.5. [Health Care Associated Infection Operational Guidance and Standards for Health Protection Units.](#)



## Equality Impact Assessment Tool

To be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

Name of Document: Policy for the Management of Hospital Outbreaks of Norovirus

		Yes/No	Comments
1.	Does the policy/guidance affect one group less or more favourably than another on the basis of:		
	Race	No	
	Ethnic origins (including gypsies and travellers)	No	
	Nationality	No	
	Gender	No	
	Culture	No	
	Religion or belief	No	
	Sexual orientation including lesbian, gay and bisexual people	No	
	Age	No	
	Disability	No	
2.	Is there any evidence that some groups are affected differently?	No	
3.	If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?	N/A	
4.	Is the impact of the policy/guidance likely to be negative?	No	
5.	If so can the impact be avoided?	N/A	
6.	What alternatives are there to achieving the policy/guidance without the impact?	N/A	
7.	Can we reduce the impact by taking different action?	N/A	

For advice or if you have identified a potential discriminatory impact of this procedural document, please refer it to The Equality & Diversity Lead, Yeovil Academy, together with any suggestions as to the action required to avoid/reduce this impact.

Signed **RACHAEL GREY**

Date: 13/6/2016