BASINGSTOKE AND NORTH HAMPSHIRE NHS FOUNDATION TRUST

Diarrhoea & Vomiting Outbreak Management Protocol

IC/274/09

Supersedes: IC/274/07 Diarrhoea & Vomiting Outbreak Escalation Plan
IC/195/07 Major Outbreak Management Policy
IC/288/07 Norovirus Gastroenteritis Policy

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Summary
This policy should be used by all staff to ensure that any patient with diarrhoea is isolated accordingly. The policy is split into three sections for ease of use:

- **Section 1**: Management of Individual cases
- **Section 2**: Management of small clusters
- **Section 3**: Management of Minor and Major outbreaks
Implementation Plan

Summary of changes
This is a new policy and encompasses all aspects of dealing with diarrhoea outbreaks.

Appendix D: List of notifiable diseases updated March 2011 to reflect Regulations published 2010. No other changes.

Action needed and owner of action

- All staff need to be aware of how and what patients need isolating
- All staff need to be aware of the role they play in trying to reduce the spread of infection
- All staff need to adhere to this policy
- Infection control will evaluate policy when required
- Infection control will monitor infection rates via alert organism surveillance

Executive Summary
This protocol provides staff with guidance for effective management of patients with gastroenteritis. It provides information on the causes of gastroenteritis.

It covers care of individual cases through the management and containment of small and large outbreaks and it includes definition of an outbreak and advice on when to set up an outbreak control group.

The membership and terms of reference for the outbreak committee are included. This includes prioritisation for isolation facilities.
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**Infection Control Contacts**

If you need infection control advice please contact:

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Abbreviations:

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<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>ICD</td>
<td>Infection Control Doctor</td>
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<tr>
<td>DIPC</td>
<td>Director Infection Prevention and Control</td>
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<tr>
<td>ICN</td>
<td>Infection Control Nurse</td>
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<td>ICT</td>
<td>Infection Control Team</td>
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<td>CCDC</td>
<td>Consultant in Communicable Disease Control</td>
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<td>CDSC</td>
<td>Communicable Disease Surveillance Centre</td>
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<td>Outbreak Control Group</td>
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<td>MOCG</td>
<td>Major Outbreak Control Group</td>
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<tr>
<td>LHI</td>
<td>Laboratory of Hospital Infection (PHLS, Colindale)</td>
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<td>PHLS</td>
<td>Public Health Laboratory Service</td>
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<tr>
<td>EHO</td>
<td>Environmental Health Officer</td>
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1.0 Introduction

Gastroenteritis is a symptom of infection by many different bacterial, viral and parasitic enteric agents. Vomiting and diarrhoea is often accompanied by other clinical signs and symptoms including fever, dehydration and electrolyte imbalance.

The micro-organisms that cause gastro-intestinal infection are mainly spread from person to person via the faeco-oral route (e.g. Clostridium difficile). Micro-organisms transmitted by food (e.g. Salmonella, E coli) can be spread to others by cross-infection. In outbreaks of food-borne illness, cross-infection may cause what are described as secondary cases of infection, occurring several days after the main outbreak (Wilson, 1995).

Viruses, notably Norovirus also known as Small round structured viruses or Norwalk, are readily spread from person to person through aerosols and environmental contamination from vomiting and diarrhoea. Outbreaks of infection in hospitals caused by cross-infection are frequently reported.

Clostridium difficile (commonly known as C.diff) causes a serious disease of the colon and a patient can develop pseudo membranous colitis (PMC). This usually occurs in patients, whose normal intestinal flora has been altered by antibiotic therapy, enabling C.diff to multiply and produce toxins. Hospital outbreaks of infection have been associated with transmission via the hands of staff. Investigations into C.diff outbreaks have also found large numbers of spores of the organism in the environment (Wilson, 1995). (Please see policy IC-217-07 Treatment, control and prevention of Clostridium Difficile Infection).

Groups that pose a high risk of spreading gastrointestinal infection:

- Patients who have difficulty in implementing good personal hygiene
- Staff who may have direct contact with infectious material and are involved in serving food to susceptible patients
- Food handlers whose work involves touching unwrapped food to be eaten raw or without further cooking

An initial assessment of patients with gastroenteritis will allow the situation to be classified as one of the following:

- Individual patients: actions to be taken detailed in section 1
- Small Cluster - e.g. 2-6 cases of diarrhoea and/or vomiting on one ward in a 2 day period: actions to be taken detailed in section 2
- Minor Outbreak - e.g. 6-10 cases of diarrhoea and vomiting in a 3 - 5 day period on one ward. For C.diff a period of increased incidence is 2+ patients in one ward over a 28 day period: actions to be taken in section 3
- Major Outbreak - e.g. a significant number of cases of diarrhoea and vomiting involving multiple wards, more than one hospital site and/or community involvement. actions to be taken in section 3

The ‘Isolation Precautions’ in section 9.0 applies to each section above.
It must be borne in mind that the initial assessment may need to be up or
downgraded as events unfold and more information becomes available to the ICT.
The CCDC will be informed, when there is an outbreak, of the current situation and
classification of the problem.

**Staff and patient hand hygiene using the correct technique and environmental
cleaning are paramount in controlling spread to other patients, visitors and
staff.**

**2.0 Aim**

To provide BNHFT staff with guidance for effective management of patients suffering
from gastroenteritis and the prevention of transmission to other patients, staff, visitors
and contamination of the environment.

**3.0 Types of Diarrhoea**

**3.1 Viral Diarrhoea and/or Vomiting Infections**

A small round structured virus (SRSV) also known as Norovirus or Norwalk virus is
the most common cause of outbreaks of gastro-enteritis in hospitals and also causes
outbreaks in other settings such as schools and nursing homes.

**3.1.2 How are Viral Diarrhoea and Vomiting Infections Spread?**

Norovirus may be spread from person to person by the faecal-oral route and by
vomiting, this causes widespread aerosol dissemination of virus particles and thus,
environmental contamination and subsequent indirect person to person spread. In
hospitals transmission via vomiting may be more important than the faecal-oral route.

**3.1.3 Clinical Features**

Vomiting is the prominent symptom in Norovirus associated gastro-enteritis, but
occasional clusters of cases occur where vomiting is infrequent or absent. Diarrhoea
tends to be short lived and not severe. Other symptoms include nausea, abdominal
cramps, headache, myalgia, chills and fever. Symptoms last between one and three
days and recovery is usually rapid thereafter. All age groups can be affected. It is
recognised that Norovirus infection results in short-term immunity only. If diarrhoea
persists for more than 7 days, the patient should be reviewed by the clinicians and
alternative causes of diarrhoea considered.

*Any patient who presents or develops symptoms of Norovirus must be isolated
in a single room immediately with strict isolation precautions.*

**3.2 Bacterial diarrhoeal infections**

**3.2.1 Clostridium difficile**

Clostridium difficile (C difficile) is a bacterium of the family of clostridium (the family
also include bacteria that cause tetanus, botulism and gas gangrene). Clostridium
difficile lives in the large intestine in a small proportion of healthy adults. When the
normal healthy bacterial flora in the intestines has been reduced by antibiotics it
multiplies and produces two toxins (A and B) that cause damage to the cells lining
the intestine which results in offensive greenish diarrhoea and fever. Clostridium
difficile is the major cause of antibiotic-associated diarrhoea. This can range from mild to very severe and occasionally fatal disease.

If Clostridium Difficile is suspected please refer to policy IC-217-07 Treatment, control and prevention of Clostridium Difficile Infection.

### 3.2.2 Food borne infections

Significant bacterial causes of diarrhoea and vomiting implicated in food borne infections include E.Coli, Salmonella, Shigella and campylobacter).

#### i. Escherichia coli (E. coli)

Many strains of E. coli are associated with gastroenteritis infection. The most serious strain is E.Coli O157:H7. It can cause large outbreaks with potential secondary spread. One large outbreak from contaminated meat in the UK caused 20 deaths in elderly people in 1996. **Secondary faecal oral spread from infected cases can occur.**

#### ii. Salmonella Infections

Salmonella infection is a common cause of diarrhoea and vomiting resulting in large outbreaks of food borne transmission in elderly, immunosuppressed patients and pregnant women. One outbreak in a hospital resulted in 19 deaths in a UK hospital in 1984. It is difficult to differentiate infection from salmonella from other causes of gastroenteritis as the severity of the illness is variable. Blood and mucus is uncommon but diarrhoea is accompanied by fever 6-72 hours after exposure. Rare complications include septicaemia and abscesses. **Secondary faecal oral spread of infection is common.**

#### iii. Campylobacter

*Campylobacter* is one of the most common bacterial causes of diarrheal illness. Virtually all cases occur as isolated, sporadic events, not as a part of large outbreaks. Campylobacteriosis (campylobacter infection) occurs much more frequently in the summer months than in the winter.

The organism is isolated from infants and young adults more frequently than from other age groups and from males more frequently than females. Virtually all persons infected with *Campylobacter* will recover without any specific treatment. Patients should drink plenty of fluids as long as the diarrhoea lasts.

#### iv. Shigella

Shigellosis, also called bacillary dysentery, is caused by four species; Shigella dysenteriae, Shigella flexneri, Shigella boydii and Shigella sonnei.

Bacillary dysentery is primarily a human disease often acquired by drinking water contaminated with human faeces or by eating food washed with contaminated water.

Illness, which can result following the ingestion of 10-100 cells, is common amongst young children although infection occurs in all ages after travel to areas where hygiene is poor. The illness is characterised by diarrhoea, sometimes with blood and mucus. Invasive disease is rare but extra intestinal complications (e.g. Haemolytic Uraemic Syndrome) can occur.
The most frequent causes of food borne illnesses are due to toxins from bacterial growth in the food before consumption e.g. Clostridium perfringes, Bacillus cereus and Staphylococcus aureus.

v. Staphylococcus aureus
Staphylococcus aureus causes an intoxication of abrupt onset with severe nausea, cramps, vomiting and prostration resulting in low blood pressure and subnormal temperature. Illness lasts for a day or two. Symptoms in a group of people who have eaten a common food usually appear within a short interval of time of consuming food. The source of the food contamination can be from an HCW hands during preparation.

vi. Clostridium perfringes
Clostridium perfringes is characterized by sudden onset of colic followed by diarrhoea; vomiting and fever are less common. Outbreaks are less common and are usually associated with large catering establishments where cooling and refrigeration is inadequate, but can be due to inadequately heated or reheated meats. Elderly patients can become seriously ill and outbreaks have resulted in deaths in an elderly mental health unit.

vii. Bacillus cereus
Bacillus cereus produces sudden symptoms of nausea and vomiting and diarrhoea. Illness usually lasts no longer than 24 hours and is rarely fatal. Outbreaks have been associated with cooked rice that had been held at ambient room temperatures before reheating.

All cases of suspected food borne infection will need to be reported to the Infection Control Nurse and investigation of the likely causes will be carried out promptly. The local Environmental Health Officer should be involved in the investigation of suspected food borne infections. Confirmed infections will need to be reported to the Health Protection Unit.

viii. Typhoid and Paratyphoid
Typhoid fever is caused by an infection with a bacterium.

This bacterium has different names in different places (UK experts prefer the name Salmonella enteritica serovar Typhi, but the US may still call it Salmonella typhi). It's only found in humans and may lead to serious illness.

When the bacterium passes down to the bowel, it penetrates through the intestinal mucosa (lining) to the underlying tissue.

If the immune system is unable to stop the infection here, the bacterium will multiply and then spread to the bloodstream, after which the first signs of disease are observed in the form of fever. The bacterium penetrates further to the bone marrow, liver and bile ducts, from which bacteria are excreted into the bowel contents.

In the second phase of the disease the bacterium penetrates the immune tissue of the small intestine, and the often violent small-bowel symptoms begin.
Paratyphoid fever is caused by Salmonella paratyphi, a similar and generally milder disease.

Salmonella enteriditis and Salmonella typhimurium are other salmonella bacteria, which are unfortunately quite familiar within the UK and cause food poisoning and diarrhoea.

**Infection Control measures should be implemented without delay for any suspected or confirmed patient or staff case.**

### 5.0 Isolation room priority

Isolation of a diarrhoea case takes priority over other infections/reasons for isolation in a side room except Swine Flu A/H1N1v, chickenpox/shingles, mumps and protective isolation for neutropenic patients. If no side rooms are available for D&V cases, patients with other infections should be moved out of side room isolation in priority order. The priorities for moving patient with existing infections out are as follows:

**Priority 1: Extended-spectrum $\beta$-lactamases (ESBLs):** Patients with ESBLs can be nursed in the bay with strict standard precautions as long as the patient is not incontinent.

**Priority 2: MRSA** - Patients with MRSA can be moved out of a side room and cohorted in bays. The bay will need to be isolated with strict standard infection control precautions. Ideally patients with MRSA in sputum or patients who are MRSA and heavy skin shedders should stay in side rooms.

**Priority 3: TB patients** – Contact time for TB is 8 hours therefore a TB patient could be moved into a bay with standard infection control precautions. The patient should be reallocated a side-room before the 8 hours expires.

Any patient moved out of a side-room to create capacity for a patient with diarrhoea, must be reallocated a side-room as soon as possible.

The following patient groups should **not be moved out of side rooms** and the consultant microbiologist should be contacted to discuss:

- **Mumps, Chickenpox and Shingles** - The contact time for these infections can be less than 30 minutes therefore these patients **should not be moved out** of the side rooms.

- **Neutropenic patients** - These patients **should not be moved out of side rooms**.

It should also be noted that patients with diarrhoea and/or vomiting should be admitted to the male and female MAU isolation bays.
Section One: Individual patient

6.0 Management of the patient with diarrhoea and/or vomiting

Any patient admitted to hospital with diarrhoea and/or vomiting and any patient that develops diarrhoea and/or vomiting whilst an in-patient must be assessed. If the patient has diarrhoea of unknown cause i.e. is not on aperients; or part of underlying condition then they need to be isolated in a single room on enteric/stool precautions. The isolation room must have its own toilet facilities or a designated commode. An isolation card must be placed on the door.

The need for isolation must be explained to the patient and relatives and confidentiality must be maintained.

It is the onset of diarrhoea and/or vomiting which determines that the patient should be isolated. Do NOT wait for a positive diagnosis of a named bacteria or virus as laboratory results can take up to 4 days.

Stool specimens should be obtained as soon as possible from any patient who reports symptoms of diarrhoea and vomiting. Anti diarrheal medication should not be prescribed to relieve symptoms as this may prolong the period of infectivity.

Patients who have had diarrhoea of unknown cause may come out of isolation after they have been clear of symptoms for 72 hours.

For patients with a proven infection please turn to appendix c for guidance.
7.0 Section Two: Small Cluster

When two or more patients in the same bay develop diarrhoea the bay will need to be closed and the usual isolation precautions undertaken.

ACTIONS:

- Inform the ICT
- Assess patients to ensure that they have diarrhoea of unknown cause i.e. not on aperients; or diarrhoea due to underlying condition such as colitis
- If the cause of diarrhoea unknown isolate symptomatic individuals. If there are not enough side rooms cohort nurse in a designated bay
- Stool samples must be sent to the laboratory
- Dedicated commodes or toilets should be designated for that bay
- Dedicated staff to look after this bay
- It is vital that Strict hand hygiene is performed by all staff entering the bay and by all patients in the bay
- Use of appropriate personal protective equipment (PPE) at all times.
- Safe disposal of contaminated waste in clinical waste bags
- Safe disposal of linen in red alginate (dissolvable) bags and red plastic bags.
- Enhanced environmental cleaning using Actichlor +
- Dedicated single use or single patient use of equipment for the duration of illness
- Inform Infection Control of any further patient or any staff cases of diarrhoea and or vomiting
- Patients who are symptomatic and those who have recovered from diarrhoea and vomiting should not attend therapeutic kitchens to participate in any food preparation activity until cleared by the ICT
- An outbreak form must be filled in and kept up to date to ensure that all staff and Infection Control Team are aware of progress of outbreak
- Deep cleaning of equipment, environment and curtains prior to re-use

If patients from more than one bay are affected then please refer to Section Three.
Section Three

8.0 Recognition of a Minor or Major outbreak

The rapid recognition of outbreaks is one of the most important objectives of routine surveillance carried out by members of the Infection Control Team (ICT). Vigilance on the part of nursing, medical and other staff can lead to the early identification of a problem. All staff must be vigilant at all times and must report any concerns to the ICT by day or the on-call Medical Microbiologist by night and at weekends. Some outbreaks can take weeks to months to develop before they become apparent especially if the infectious agent has a long incubation period (e.g. tuberculosis, hepatitis) or if the infections occur in out-patients (e.g. Adenovirus conjunctivitis); these types of outbreaks are frequently detected by laboratory surveillance but again staff awareness can be decisive.

N.B. Out of hours contact the on-call Medical Microbiologist via the BNHFT switchboard

8.1 Definition of an Outbreak of Diarrhoea and Vomiting

A minor outbreak is defined as a situation where 6-10 patients have the same symptoms either in the same bay or with a link between them at some point.

A major outbreak is defined as a situation where more than 10 patients are affected.

8.2 Immediate measures to be taken if a Minor or Major Outbreak is suspected

- Inform infection control team
- Assess all patients to ensure that they have diarrhoea of unknown cause i.e. are not on aperients; or have an underlying condition such as. Colitis
- If cause of diarrhoea is unknown isolate all symptomatic individuals. If there are not enough side rooms cohort nurse in a designated bay/area.
- Wear gloves and aprons for contact with an affected patient or environment.
- Perform hand hygiene with soap and water after contact with an affected patient or environment.
- Maintain records of affected patient and staff cases. This sheet should be updated at least once a day so that it is accurate.
- Send specimens for culture, C. difficile PCR, Norovirus PCR and virology.
- Remove exposed foods such as fruit.
- Advise visitors on the importance of hand hygiene when visiting the ward.
- Inform Occupational Health and refer affected staff to them.
- Exclude affected staff from the ward immediately and until they have been symptom free for 48 hours. Staff must submit stool specimens.
- Clean and disinfect vomit and faeces spillages promptly using a 1,000ppm available chlorine solution (Actichlor or Actichlor +).
- Inform the Domestic Manager and arrange to increase the frequency of routine ward cleaning and disinfection of hard surfaces, paying special attention to toilet seats, handles and toilet roll holders with a 1,000ppm available chlorine solution (Actichlor +).
- Restrict movement of equipment to other clinical areas.
- Discontinue Occupational Therapy (OT) activity or group sessions.
- Restrict staff movement between wards.
- Additional measures may be required if the outbreak is not contained.
8.3 Investigation of a suspected outbreak

Once a potential outbreak has been identified, the Infection Control Doctor (ICD) or designate takes strategic responsibility for action within the Trust; action is co-ordinated in conjunction with other members of the Infection Control Team (ICT) and other relevant staff.

The ICT will take immediate steps to collect and collate information from the affected area(s) including wards, clinics, laboratories etc., to determine the severity and extent of the problem and, to institute immediate control measures in accordance with existing hospital policies.

The initial assessment will allow the situation to be classified as one of the following:

- **Small Cluster** - e.g. 2-6 cases of diarrhoea and vomiting on one ward in a 2 day period: *Actions to be taken detailed in section 2*
- **Minor Outbreak** - e.g. 6-10 cases of diarrhoea and vomiting in a 3 - 5 day period on one ward: *actions to be taken in section 3*
- **Major Outbreak** - e.g. a significant number of cases of diarrhoea and vomiting involving multiple wards, more than one hospital site and/or community involvement. *actions to be taken in section 3*

The actions to be taken following on the declaration of an outbreak is detailed in below.

It must be borne in mind that the initial assessment may need to be up or downgraded as events unfold and more information becomes available to the ICT. The CCDC will be informed at all times of the current situation and classification of the problem

8.4 Outbreak Management

- An small cluster can be understood to be a small number of cases in a limited geographical area and is dealt with by the ICT in conjunction with the relevant clinicians and nurses from the affected area(s).
- In cases where an “incident” reaches a level where the situation is classified as a Minor Outbreak (a situation where six to 10 patients have the same symptoms either in the same bay or with a link between them at some point) it is necessary to form an Outbreak Control Group (OCG) to oversee management.
- In cases where an outbreak reaches a level where the situation is classified as a Major Outbreak (a situation where more than 10 patients are affected) it is necessary to form a Major Outbreak Control Group (MOCG) to oversee management.
- Outbreaks have to be controlled on a geographical basis taking into account the individual needs of each location within the Trust.
• The operational authority for outbreak control lies with the Infection Control Doctor and Team under the auspices of the Infection Control Committee, and ultimately the Trust Chief Executive and Board.

• The Public Health (Control of Disease) Act 1984, also gives the Local Authorities responsibility for the control of food poisoning and notifiable infectious diseases in their locality. Representation from Basingstoke And Dean is therefore incorporated as an integral part of this plan.

• The Consultant in Communicable Disease Control (CCDC) has responsibility for the control of communicable diseases in the Health Authority and acts on behalf of the District Council as their “Proper Officer” under the Public Health Act (1984). As a result, the CCDC may or may not take an active role in an outbreak situation depending on the type of infection and/or infectious agent, the number of cases involved, and whether there are implications for the community. In some circumstances the CCDC, acting on behalf of the Health Authority, may wish to take the lead role in an outbreak situation. The CCDC must be informed of any and all situations that may be developing into outbreaks.

• The guidance given in this document is based on “Hospital Infection Control - Guidance on the Control of Infection in Hospitals”, and previous experience in outbreak management. Information has been tailored for use in the Basingstoke and North Hampshire NHS Foundation Trust (BNHFT), with due regard to the structured Infection Control Programme already in existence in the Trust.

• The DoH and PHLS issued specific guidance on how to deal with incidents of deliberate release of bio terrorist material. If you suspect you are dealing with such an incident isolate patient/patients as per trust isolation policy and contact the Consultant Microbiologist and the CCDC immediately.

8.5 Management of Minor Outbreak

In cases where an “incident” reaches a level where the ICD classifies the situation as a Minor Outbreak it is necessary to form an Outbreak Control Group (OCG) to oversee management.

8.6 Members of Outbreak Control Group (OCG)

• Chief Operating Officer/Director of Nursing (Chair)
• Infection Control Doctor/DIPC (deputy chair if required)
• Infection Control Nurse with responsibility for the affected area
• Medical Director or designate
• CCDC
• Consultant(s) from the affected area(s)
• Senior nurse(s) or midwife(s) from the affected area(s)
• Divisional Manager of affected area(s) (deputy chair if required)
• Consultant Microbiologist
• Occupational Health Doctor/Nurse
• Communications representative
• Facilities Manager
• Head of HR (if required)
• Head of Support Services (if required)
• Secretarial Assistance
• Other representatives may be co-opted

N.B. some members of the group may represent a number of roles.

8.7 Terms of Reference of the Outbreak Control Group (OCG)

Once a Minor Incident has been identified the functions of the OCG are:

• To agree on a working case definition for outbreak management (will be provided by the ICD),
• To collate all results from the clinical areas and laboratory,
• To agree and co-ordinate policy decisions on the investigation and control of the outbreak and to ensure they are implemented,
• To take all necessary steps to ensure optimal continuing clinical care of all patients (affected or unaffected) during the outbreak,
• To take all necessary steps to ensure the well being and safety of staff involved,
• To assess the resource implications of outbreak management, and how these will be met e.g. additional supplies and clerical staff,
• To agree arrangements for providing information to patients, relatives and visitors if required,
• To meet on a daily basis to review progress on outbreak investigation and control,
• To define the end of the outbreak and evaluate its management,
• To inform the Risk Manager,
• To prepare a report for submission to the Trust Infection Control Committee and Clinical Governance Board as necessary.

All meetings of the OCG will have clear agendas; minutes and action notes will be produced. Members of the ICT will be responsible for providing status reports at each meeting for OCG deliberation.

Where an outbreak involves the community, the CCDC may take the lead role.
8.8 Members of the OCG and their infection control responsibilities during a Minor Outbreak

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibility</th>
</tr>
</thead>
</table>
| Infection Control Team      | ▪ Ensure that ward procedures are correctly in place  
                                   ▪ Collect relevant patient/staff information from ward/clinics or other affected areas  
                                   ▪ Collect all laboratory information  
                                   ▪ Collate and review evidence to confirm incident and plot its course  
                                   ▪ Enlist the assistance of the Occupational Health staff if needed.  
                                   ▪ Report to ICD.  
                                   ▪ Verify if there is an outbreak in conjunction with ICD  
                                   ▪ Institute outbreak control measures  
                                   ▪ Co-ordinate any screening of staff and patients if required  
                                   ▪ Collate data on the outbreak and liaise with ICD  
                                   ▪ Monitor and advise ward staff on the care of patients |
| Consultant in Infection Control/DIPC | ▪ Co-ordinate all control measures  
                                   ▪ Inform and liaise with:  
                                       ◦ Clinicians in affected area  
                                       ◦ Ward manager  
                                       ◦ Divisional Manager  
                                       ◦ Medical director  
                                       ◦ CCDC  
                                       ◦ Chief Executive |
| Chief Operating Officer     | ▪ Convene Outbreak Control Group  
                                   ▪ Chair outbreak meetings  
                                   ▪ Advise OCG on current status of outbreak  
                                   ▪ Advise OCG on infection control procedures |
| CCDC                        | ▪ Consult with the ICD and help to institute the Trust Infectious Incident and Outbreak Plan  
                                   ▪ Advise the OCG on further epidemiological aspects of outbreak investigation  
                                   ▪ Inform and liaise with the Local Authority Environmental Health Department as necessary  
                                   ▪ Inform Director of Public Health Medicine as necessary  
                                   ▪ Inform CDSC as necessary  
                                   ▪ Liaise with Risk Management  
                                   ▪ Be available for consultation during |
<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Consultant</td>
<td>- Advise OCG on aspects relating to clinical care of patients</td>
</tr>
<tr>
<td></td>
<td>- Relay OCG instructions to medical team involved</td>
</tr>
<tr>
<td></td>
<td>- Keep medical staffing requirements under review</td>
</tr>
<tr>
<td>Consultant Microbiologist</td>
<td>- Advise OCG on further microbiological aspects of the investigation</td>
</tr>
<tr>
<td></td>
<td>- Arrange for microbiological analysis of specimens and report results to OCG</td>
</tr>
</tbody>
</table>
8.9 Management of a Major Outbreak

In cases where an outbreak reaches a level where the ICD classifies the situation as a **major outbreak** it is necessary to form a Major Outbreak Control Group (MOCG) to oversee management.

A decision on what constitutes a major outbreak involves consideration of the nature of the disease, the number of people involved and the potential for spread within the hospital or community e.g. a single case of tuberculosis regarded as being hospital acquired may require all the procedures for a major outbreak, whereas a number of cases of a mild non-notifiable illness may be classified as an infectious incident.

8.10 Members of a Major Outbreak Control Group (MOCG)

- Chief Operating Officer/Director of Nursing (Chair)
- Infection Control Doctor/DIPC (deputy chair if required)
- Infection Control Nurse with responsibility for the affected area
- CCDC
- Consultant(s) from the affected area(s)
- Senior nurse(s) or midwife(s) from the affected area(s)
- Divisional Manager for affected area(s) (deputy chair if required)
- Medical Director or designate
- Head of Governance (if required)
- Head of Support Services
- Occupational Health Consultant or nominee
- Chief Environmental Health Officer or nominee - if infection is likely to be food or water borne
- Consultant Microbiologist
- Regional epidemiologist
- Chief Pharmacist
- Communications representative.
- Facilities Manager
- Head of HR
- Representatives from non-affected divisions – Head of Nursing or Divisional Manager (if required)
- Secretarial Assistance
- Additional members may be considered if their expertise in a particular problem can be useful to the group

N.B. some members may represent a number of roles.

8.11 Terms of Reference of Major Outbreak Control Group (MOCG)

Once a major outbreak has been identified, the functions of the MO CG are:

- To agree on a working case definition for outbreak management (will be provided by the ICD),
- To agree and co-ordinate policy decisions on the investigation and control of the outbreak and to ensure they are implemented; responsibility and accountability for critical action will be allocated to certain individuals in the MOCG,
• To take all necessary steps to ensure optimal continuing clinical care of all patients (affected and unaffected) during the outbreak,
• To take all necessary steps to ensure the well being and safety of the staff involved,
• To assess the resource implications of the outbreak and its management, and how these will be met e.g. additional supplies and staff,
• To establish a system for press releases as necessary during the course of the outbreak,
• To provide clear instructions and/or information to ward staff and others such as cleaners and laboratory staff.
• To consider the need for outside help and expertise,
• To agree arrangements for providing information to patients, relatives and visitors,
• To ensure communication with the Communicable Diseases Surveillance Centre - and the PHLS Laboratory of Hospital Infection (LHI),
• To meet daily at 12 noon and review progress on outbreak investigation and control,
• To define the end of the outbreak and evaluate its management,
• To prepare preliminary and a final reports for the Infection Control Committee, Trust Management and Clinical Governance Board.

All meetings of the MOCG should have clear agendas; minutes and action notes must be produced. Members of the ICT will be responsible for providing status reports at each meeting for MOCG deliberation.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Operating Officer</td>
<td>• Convene Major Outbreak Control Group&lt;br&gt;• Chair outbreak meetings&lt;br&gt;• Advise MOCG on current status of outbreak&lt;br&gt;• Advise MOCG on infection control procedures</td>
</tr>
<tr>
<td>Infection Control Doctor/DIPC</td>
<td>• Co-ordinate all control measures&lt;br&gt;• Verify if there is an outbreak, and institute Infectious Incident and Outbreak Plan&lt;br&gt;• Inform Chief Executive/Associate Medical Director&lt;br&gt;• Inform CCDC</td>
</tr>
<tr>
<td>CCDC</td>
<td>• Consult with the ICD and help to institute the Trust Infectious Incident and Outbreak Plan</td>
</tr>
<tr>
<td>Role</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Infection Control Team</td>
<td>- Advise MOCG on further epidemiological aspects of the outbreak investigation</td>
</tr>
<tr>
<td></td>
<td>- Inform and liaise with the Local Authority Environmental Health Department</td>
</tr>
<tr>
<td></td>
<td>- Inform Chief Medical Officer and Director of Public Health medicine</td>
</tr>
<tr>
<td></td>
<td>- Inform CDSC</td>
</tr>
<tr>
<td></td>
<td>- Be available for consultation during the outbreak</td>
</tr>
<tr>
<td></td>
<td>- Verify if there is an outbreak in conjunction with ICD</td>
</tr>
<tr>
<td></td>
<td>- Institute outbreak control measures</td>
</tr>
<tr>
<td></td>
<td>- Co-ordinate any screening of staff and patients if required</td>
</tr>
<tr>
<td></td>
<td>- Collate data on the outbreak and liaise with ICD</td>
</tr>
<tr>
<td></td>
<td>- Monitor and advise ward staff on the care of patients</td>
</tr>
<tr>
<td>Clinical Consultant</td>
<td>- Advise MOCG on aspects relating to clinical care of patients</td>
</tr>
<tr>
<td></td>
<td>- Relay MOCG instructions to medical team involved</td>
</tr>
<tr>
<td></td>
<td>- Keep medical staffing requirements under review</td>
</tr>
<tr>
<td>Consultant Microbiologist</td>
<td>- Advise MOCG on further microbiological aspects of the investigation</td>
</tr>
<tr>
<td></td>
<td>- Arrange for microbiological analysis of specimens and to report results to MOCG</td>
</tr>
<tr>
<td>Infection Control Nurse responsible for affected area</td>
<td>- Institute outbreak control measures</td>
</tr>
<tr>
<td></td>
<td>- Co-ordinate any screening of staff and patients if required</td>
</tr>
<tr>
<td></td>
<td>- Collate data on the outbreak and liaise with ICD</td>
</tr>
<tr>
<td></td>
<td>- Monitor and advise ward staff on the care of patients</td>
</tr>
<tr>
<td>Medical Director or designate</td>
<td>- Advise on aspects relating to clinical care of patients</td>
</tr>
<tr>
<td></td>
<td>- Relay OCG instructions to medical team involved</td>
</tr>
<tr>
<td></td>
<td>- Keep medical staffing requirements under review</td>
</tr>
<tr>
<td>Senior nurse(s) or midwife(s) from the affected area</td>
<td>- To support staff in affected areas</td>
</tr>
<tr>
<td></td>
<td>- To ensure staffing is efficient in outbreak areas</td>
</tr>
<tr>
<td></td>
<td>- To help expedite discharges</td>
</tr>
<tr>
<td></td>
<td>- To liaise with other services within the Trust to ensure cleaning is carried out efficiently and effectively.</td>
</tr>
<tr>
<td>Divisional Manager for the affected area</td>
<td>- To liaise with and support general managers</td>
</tr>
<tr>
<td>Role</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Clinical Service Manager and Clinical Governance Manager | To expedite discharges  
To liaise with other services within the Trust to ensure cleani |
| Occupational Health Consultant/Nurse      | Coordinate the SUI if required                                                    |
| Chief Environmental Health Office or nominated representative – if infection is likely to be food or water borne | Keep records of staff sickness and liaise with staff to ensure a timely return to work. |
| Regional Epidemiologist                   | Advise MOCG on further microbiological aspects of the investigation  
Arrange for microbiological analysis of specimens and to report results to MOCG |
# 8.12 Check list for hospital outbreaks

## INITIAL ASSESSMENT

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is an Outbreak Control Group or Major Outbreak Control Group necessary</td>
<td></td>
</tr>
<tr>
<td>2. Is there community involvement</td>
<td></td>
</tr>
<tr>
<td>3. Has the CCDC been notified or otherwise involved</td>
<td></td>
</tr>
<tr>
<td>4. Is the OCG or MOCG appropriately constituted</td>
<td></td>
</tr>
</tbody>
</table>

## INVESTIGATION

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Case definition established based on clinical epidemiology and microbiology</td>
<td></td>
</tr>
<tr>
<td>2. Need for microbiological screening of staff and patients considered</td>
<td></td>
</tr>
<tr>
<td>3. Need for serological screening of staff and patients considered</td>
<td></td>
</tr>
<tr>
<td>4. Engineers involved</td>
<td></td>
</tr>
<tr>
<td>5. Need for environmental samples considered</td>
<td></td>
</tr>
<tr>
<td>6. Need for food samples considered</td>
<td></td>
</tr>
<tr>
<td>7. Epidemiological investigation started</td>
<td></td>
</tr>
</tbody>
</table>

## MANAGEMENT/ORGANISATIONAL ASPECTS

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Need for increased clinical care considered e.g. extra staff</td>
<td></td>
</tr>
<tr>
<td>2. Need for extra cleaning resources considered</td>
<td></td>
</tr>
<tr>
<td>3. Need for increased laundry, CSSD, ancillary staff considered</td>
<td></td>
</tr>
<tr>
<td>4. Need for increased clerical staff considered</td>
<td></td>
</tr>
<tr>
<td>5. Isolation facilities defined</td>
<td></td>
</tr>
<tr>
<td>6. Isolation ward considered</td>
<td></td>
</tr>
<tr>
<td>7. Isolation and nursing procedures defined</td>
<td></td>
</tr>
<tr>
<td>8. Nursing, medical and paramedical staff informed of these procedures</td>
<td></td>
</tr>
<tr>
<td>9. Domestic/housekeeping procedures defined</td>
<td></td>
</tr>
<tr>
<td>10. Availability of supplies assessed</td>
<td></td>
</tr>
</tbody>
</table>
CONTROL

1. Need for active or passive immunisation considered
2. Need for antibiotic prophylaxis considered
3. Isolation policies implemented
4. Policy on patient transfer, discharge and admissions defined
5. Policy on the movement of patients and staff within the hospital defined
6. Visiting arrangements defined

COMMUNICATION

1. Senior management of Trust or Health Authority informed
2. Health and Safety and Environmental Unit informed
3. Catering manager informed
4. Occupational Health Services informed
5. Local Authority informed
6. Appropriate senior works officer informed
7. Public Relations Officer identified
8. Appropriate information provided to staff
9. Appropriate information provided to patients
10. Appropriate information provided to relatives and visitors
11. Communication with relevant personnel and departments considered
12. Microbiology department informed
13. CDSC - contacted
14. Other Healthcare facilities informed
15. Other relevant bodies contacted
16. Reporting to HPA and HPU
17. Final Outbreak report with actions to take forward
8.13 Key people to be informed in the event of a major outbreak

CLINICAL DEPARTMENTS

- All Medical Staff
- Nursing services - including night staff
- Day Hospital Staff
- Operating Theatres
- X ray
- Laboratories
- Mortuary

CLINICAL SUPPORT SERVICES

- Pharmacy
- Physiotherapy
- Occupational therapy
- Occupational Health
- Radiography
- Out-Patients Department
- TSSU

MANAGEMENT

- Inform Chief Executive or deputy
- Risk Management
- Operational Services Manager.

AMBULANCE AND TRANSPORT SERVICES

HOTEL SERVICES

- Housekeeping manager
- Laundry manager
- Catering Manager
- Portering Manager

OTHERS

- CDSC
- Other local NHS Trusts
- Health and Safety Unit
- Residency manager
- Switchboard
- Media
- Social Services
9.0 Isolation precautions and Operational Planning

Isolation precautions should be used for the care of patients known or suspected to be infected with micro-organisms that can be transmitted by the faecal oral route.

<table>
<thead>
<tr>
<th>Precaution</th>
<th>Guidance</th>
</tr>
</thead>
</table>
| Patient placement   | • The patient should be placed in a single room with en-suite toilet facilities or have access to a designated commode kept in the room.  
  • If side room not available patients may be cohorted in bays but the Infection Control Team MUST be consulted for advice first.  
  • Consult the Infection Control Team (ICT) for advice.  
  • Stool charts must be kept for all patients  
  • Strict Fluid balance charts |
| Hand hygiene        | • Decontaminate hands with soap and water following patient contact and on removal of protective clothing.  
  • Provide personal hygiene advice to the patient, family and contacts.  
  • If body fluids and contaminated items are touched WASH HANDS. (See Hand Hygiene policy for further details). |
| Gloves (non sterile)| • Wear gloves when touching blood or body fluids and contaminated items.  
  • Wear gloves when coming into contact with an isolated patient or their environment.  
  • Care should be taken when cleaning up vomit or diarrhoea.  
  • Put on clean gloves just before touching mucous membranes or non-intact skin.  
  • Change gloves between procedures on the same patient after contact with material that may contain high numbers of micro-organisms.  
  • Remove gloves (single use item) promptly after use and wash hands. Gloves should be disposed of as clinical waste. (See Standard Precautions policy)  
  • Gloves MUST be changed between every patient contact.  
  • Gloves must be disposed of inside the room/bay |
| Mask, eye and face protection | • Wear a mask and eye protection or face shield to protect the mucous membranes of the eyes, nose and mouth during procedures that are likely to generate splashes or sprays of blood or body fluids.  
  • Dispose of protective clothing as clinical waste. |
| Apron/ gown         | • Wear an apron or gown to protect the skin and clothing during procedures that are likely to generate splashes or sprays of blood or body fluids.  
  • Wear an apron when coming into contact with an isolated patient or their environment.  
  • Select an appropriate apron or gown based on the activity and amount of fluid likely to be generated.  
  • Remove the apron/gown after use and dispose of as clinical waste.  
  • Aprons must be disposed of inside the room/bay |
### Patient transfer
- Patients should not be transferred to other Units or hospitals unnecessarily. If transfer is necessary, urgent advice of the ICT must be sought. The receiving department **must** be informed of the infectious state of the patient.
- If the patient has had Norovirus the patient **cannot** be transferred to another hospital, nursing or residential home or hospice until patient has been 72 hrs clear and Infection Control Advice has been sought.

### Patient care equipment
- The patient should have dedicated equipment for their use.
- Wear gloves and aprons to handle equipment soiled with blood and body fluids – decontaminate the equipment as per guidance in the decontamination policy.
- If the equipment is single use then dispose of it as clinical waste.
- Re-usable equipment **must** be decontaminated prior to re-use on other patients.

### Environment
- A high standard of cleanliness and de-cluttering should be maintained in the patient’s environment.
- Enhanced cleaning of the isolation area should be performed by the domestic staff using dedicated colour coded equipment (Yellow) and Actichlor + used for disinfection. (10 1.7g tablets to one litre of water for a deep clean). The cleaning should be enhanced to three times a day
- A deep clean of the room and equipment will be required at the end of the isolation period and prior to occupation by another patient. (See Cleaning Standards Protocol)

### Linen
- Gloves and aprons must be worn and the linen placed in a red alginate (dissolvable) bag in the room which should be placed in a red plastic bag outside the room and sent to the laundry.
- Personal clothing must not be hand sluiced by health care workers.

### Cutlery and Crockery
- All patient crockery and cutlery must be dishwashed. Hand washing is not acceptable.

### Waste
- All waste will be disposed of as clinical waste in a yellow clinical waste bin.

### Surveillance
- An outbreak sheet listing all patients **MUST** be filled in by the affected ward area and kept up to date so that accurate information can be collected for any meetings. This will be used to assess the wards needs and ascertain when they can open.

### Staffing
- The area should be nursed with dedicated staff
- These staff members should not work in any other area of the hospital for 48 hrs
- Staffing needs to be adjusted on the isolated area so the correct skill mix is maintained to facilitate caring for these patients. A nursing skill mix example, for nursing patients with Diarrhoea and Vomiting, is described as follows:

  - 1 x Nurse in Charge per ward
  - 1 x Registered Nurse plus 1 x Health Care Assistant per 6 bed bay
  - 1 x Registered Nurse plus 1 x Health Care Assistant per 4 side-rooms
| Staff with diarrhoea and or vomiting | • Any staff members with symptoms of diarrhoea and or vomiting cannot work.  
• They must refrain from work for 48 hrs post symptoms  
• A stool (faeces) sample will be required if the staff member has diarrhoea.  
• Occupational Health must be informed |
|---|---|
| Opening the bay after diarrhoea and or vomiting | • The bay cannot open until every patient has been clear of symptoms for 72 hours.  
• The whole bay will need to be deep cleaned and curtains changed before opening |
| Opening a ward after diarrhoea and or vomiting | • The ward cannot open till every patient has been 72 hrs clear of symptoms  
• Every area on the ward including offices and clean and dirty utility will need to be deep cleaned and curtains changed prior to opening. |
| Communication | • Communication of clinical information regarding diarrhoea, vomiting or both is vital especially when patients transfer is being considered. Professional and Trust standards and policies must be followed to achieve effective standards of communication. |
| Visitors | • Visitors only need to wear aprons and gloves if helping with personal care or during a Norovirus outbreak  
• The Infection Control Team will advise if aprons and gloves are needed at any other time for visitors.  
• Visiting may need to be restricted if a major outbreak. |
10.0 References / Bibliography


Department of Health (1995) Hospital Infection Control: Guidance on the Control of Infection in Hospitals. PHLS


Health Protection Agency, Questions and Answers - Clostridium difficile, 2005


Essential steps to safe, clean care: reducing healthcare – associated infections in Primary care trusts; Mental health trusts; Learning disability organizations. Preventing the spread of infection, Department of Health, 2006

Appendix A

Flowchart for Managing Patient Isolation in an Outbreak of Diarrhoea & Vomiting (D&V)

One Patient admitted with D&V?
Admit to side room, or isolated bays on MAU, with en-suite/dedicated commode facilities. Commence standard infection control precautions. Inform

One in-patient commencing with D&V?

Two or more in-patients commencing with D&V in the same bay
Isolate the bay with standard infection control precautions

More than one bay affected in the Trust?
Outbreak committee either minor or major convened
This will meet daily or as determined by chair
Management of staff, patients and contacts as desired by committee

Any other type of diarrhoea move non-infected patients out but must isolate patients for 48 hrs.
If Norovirus move non-infected patients out of bay. DO NOT isolate these patients just observe

Ensure Infection Control is kept informed. A Consultant Microbiologist is the only person who can close bays/wards.
### Appendix B: Bristol Stool Chart

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Separate hard lumps, like nuts</td>
</tr>
<tr>
<td>Type 2</td>
<td>Sausage-like but lumpy</td>
</tr>
<tr>
<td>Type 3</td>
<td>Like a sausage but with cracks in the surface</td>
</tr>
<tr>
<td>Type 4</td>
<td>Like a sausage or snake, smooth and soft</td>
</tr>
<tr>
<td>Type 5</td>
<td>Soft blobs with clear-cut edges</td>
</tr>
<tr>
<td>Type 6</td>
<td>Fluffy pieces with ragged edges, a mushy stool</td>
</tr>
<tr>
<td>Type 7</td>
<td>Watery, no solid pieces</td>
</tr>
</tbody>
</table>
Appendix C
Management of Common Infections that Cause Diarrhoea and/or Vomiting

This list is not exhaustive but gives examples of micro-organisms which cause gastro-intestinal infections. All cases of diarrhoea and/or vomiting should be reported to the Infection Control Nurse.

<table>
<thead>
<tr>
<th>Disease and/or infective agent and clinical features</th>
<th>Transmission</th>
<th>Guidance and Isolation</th>
</tr>
</thead>
</table>
| Small round structured virus (diarrhoea and/or vomit) Norovirus | • Faecal oral (hand to mouth following direct contact with faeces and/or vomit).  
• Secondary faecal oral spread from infected cases.  
• Indirect spread after environmental contamination by vomits.  
• Droplet from aerosols from vomit.  
• Contact with contaminated gloves, shared clinical equipment and the environment.  
• Unwashed Healthcare Worker’s hands. | • Isolate for 72 hours from the last episode of diarrhoea and/or vomiting.  
• Staff members who are symptomatic should stay at home for 48 hours from the last episode of diarrhoea and/or vomiting.  
• Collect stool specimens ASAP for virology.  
• Staff stool specimens should be sent via Occupational Health or their GP. |
| Rotavirus                                           | • As above                                                                  | • As above.                                                                            |
| Hepatitis A                                         | • Faecal oral which includes patient to patient spread.                     | • Isolate for one week after the onset of jaundice or in the absence of jaundice until 10 days after the onset of first symptoms.  
• Infected food handlers with poor personal hygiene.  
• Contaminated water and food especially shellfish.  
• Contaminated drugs and needle sharing equipment in illicit drug users. | • Report cases to the local Health Protection Unit (HPU) |
| Hepatitis E                                         | • Faecal oral person to person spread.                                     | • Isolation for the duration of symptoms.  
• Contaminated water and food. | • Observe strict hand hygiene.  
• Report to HPU |
| Campylobacter (symptoms include profuse diarrhoea malaise, abdominal pain and sometimes vomiting) | • Undercooked meat especially poultry.  
• Cross contamination from raw to cooked food.  
• Food contaminated by unwashed hands and contaminated utensils.  
• Person to person spread can occur. | • Isolation for the duration of illness.  
• Collect food history.  
• Affected persons should not prepare or handle food for others until symptom free for at least 48 hours.  
• Report all cases to HPU. |
### Diarrhoea & Vomiting Outbreak Management Protocol

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Infection Route</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Escherichia coli (E. coli) gastroenteritis</strong>&lt;br&gt;cAusing diarrhoea and vomiting</td>
<td>• Ingestion of contaminated food and/or water.&lt;br&gt;• Faecal oral.&lt;br&gt;• Contaminated hands of infected cases.&lt;br&gt;• Contaminated equipment.</td>
<td>• Isolation precautions for the duration of illness.&lt;br&gt;• Collect food history.&lt;br&gt;• Notify the local HPU.</td>
</tr>
<tr>
<td><strong>Salmonella (vomiting, diarrhoea and fever)</strong></td>
<td>• Ingestion of contaminated cooked food by raw food or inadequate cooking temperatures.&lt;br&gt;• Eggs, red and white meats, dairy products.&lt;br&gt;• Faecal oral spread.</td>
<td>• Isolation for the duration of illness.&lt;br&gt;• Food handlers should not return to work until cleared by Occupational Health.&lt;br&gt;• Report to HPU.</td>
</tr>
<tr>
<td><strong>Typhoid fever (Salmonella typhi)</strong>&lt;br&gt;The infectious period lasts as long as long as bacilli are present in stool.</td>
<td>• Ingestion of food and water contaminated by faeces.&lt;br&gt;• Faecal oral person to person spread.&lt;br&gt;• Unwashed hands of asymptomatic carriers.</td>
<td>• Isolation precautions for duration of illness and until stools are normal.&lt;br&gt;• Antibiotic therapy guidance from microbiologist.&lt;br&gt;• Obtain travel history.&lt;br&gt;• Exclude affected food handlers until cleared by HPA.&lt;br&gt;• Exclude HCWS who are not food handlers until 3 negative stool specimens taken at 2 week intervals, commencing 2 weeks after completion of antibiotics.&lt;br&gt;• Report to HPU.</td>
</tr>
<tr>
<td><strong>Cryptosporidiosis gastroenteritis</strong>&lt;br&gt;(Protozoan parasite-causes watery or mucoid diarrhoea)</td>
<td>• Ingestion of contaminated water, food and milk.&lt;br&gt;• Faecal oral spread.&lt;br&gt;• Aerosol or droplet spread can occur.&lt;br&gt;• Sexual partners</td>
<td>• Isolation precautions for the duration of illness.</td>
</tr>
<tr>
<td><strong>Staphylococcus aureus</strong></td>
<td>• Ingestion of food containing staphylococcal enterotoxin, the source can be from HCW hand.&lt;br&gt;• Contaminated food stored at ambient temperature.</td>
<td>• Standard precautions (person to person spread does not occur)</td>
</tr>
<tr>
<td><strong>Bacillus cereus</strong></td>
<td>• Contaminated food stored at ambient temperature.</td>
<td>• As above</td>
</tr>
<tr>
<td><strong>Diarrhoea (unknown cause)</strong></td>
<td>• Faecal oral person to person spread.</td>
<td>• Stool and isolation precautions for 72 hours post symptoms.</td>
</tr>
<tr>
<td><strong>Giardiasis (A protozoan parasite that causes diarrhoea and cramps)</strong></td>
<td>• Faecal oral spread of the cysts and by ingestion of the cysts from contaminated food and water.</td>
<td>• Isolate for duration of illness.&lt;br&gt;• Report to the local HPU.&lt;br&gt;• Antibiotic therapy should be guided by a microbiologist.&lt;br&gt;• Consider testing all household contacts.</td>
</tr>
<tr>
<td><strong>Gastroenteritis</strong></td>
<td>• Faecal oral route.</td>
<td>• Stool and isolation precautions for 72 hours post symptoms</td>
</tr>
<tr>
<td>Pathogen/s</td>
<td>Transmission Routes</td>
<td>Precautions/Management</td>
</tr>
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<tr>
<td><strong>Cholera (Vibrio cholera)</strong> (Cases are normally admitted to an infectious diseases unit)</td>
<td>Faecal oral spread. Contaminated water and uncooked seafood.</td>
<td>Stool precautions and isolation for the duration of illness and following two consecutive negative stools taken at 24-48 hour intervals.</td>
</tr>
<tr>
<td><strong>Shigella including bacillary dysentery</strong></td>
<td>Faecal oral route. Contaminated food. Highly infectious organism</td>
<td>Stool and isolation precautions for the duration of illness. Clinicians should report to the local Health Protection Unit.</td>
</tr>
<tr>
<td><strong>Clostridium difficile (A gram-positive anaerobic bacillus that produces toxins).</strong> Clinical manifestations include abdominal pain, fever and profuse foul smelling diarrhoea.</td>
<td>Diarrhoeal infection is usually triggered by the use of antibiotics. Direct patient to patient spread by faecal oral route. Unwashed hands of health care workers (HCW) Transferred on contaminated equipment (including healthcare equipment). Contaminated environment. Lack of prudent antibiotic prescribing.</td>
<td>Isolate with stool precautions until asymptomatic for 72 hours and until stools are normal. Collect stool samples for C. difficile toxins. Treat with oral antibiotics as recommended by a microbiologist. Use Actichlor disinfection to reduce spores in the environment. Clean room/bay three times daily Mandatory reporting to HPU for all cases aged 2+ years.</td>
</tr>
<tr>
<td><strong>Clostridium perfringes (A2 strains can survive normal cooking)</strong></td>
<td>Ingestion of contaminated food (e.g. undercooked minced beef). Inadequately reheated food and food kept warm at temperatures 43-45 C.</td>
<td>Isolate for the duration of illness. Report to the local HPU.</td>
</tr>
</tbody>
</table>
Appendix D
List of Notifiable Diseases

The following diseases (or suspicion of) are notifiable by law to the Consultant in Communicable Disease Control; the clinician who considers or diagnoses the infection is responsible for the notification. Persistent carriers of typhoid bacilli and other Salmonellae should also be reported. For optimal in-hospital infection control, the Infection Control Team must also be informed.

List of Notifiable Diseases (2010)

- Acute Encephalitis - bacterial and viral
- Acute Meningitis
- Acute Poliomyelitis
- Acute Infectious Hepatitis
- Anthrax
- Botulism
- Brucellosis
- Cholera
- Diphtheria
- Enteric fever
- Food Poisoning (or suspected food poisoning)
- Haemolytic Uraemic Syndrome (HUS)
- Infectious bloody diarrhoea
- Invasive Group A Streptococcal disease and Scarlet Fever
- Legionnaires’ Disease
- Leprosy
- Malaria
- Measles
- Meningococcal septicaemia
- Mumps
- Plague
- Rabies
- Rubella
- SARS
- Smallpox
- Tetanus
- Tuberculosis - pulmonary and non-pulmonary
- Typhus
- Viral Haemorrhagic Fevers (VHF)
- Viral hepatitis
- Whooping Cough
- Yellow Fever

As of April 2010, it is no longer a requirement to notify the following diseases: dysentery, ophthalmia neonatorum, leptospirosis and relapsing fever.

Notification should be made by telephone in the first instance followed by notification on the official form to:
Hampshire & Isle of Wight HPU
Unit 8
Fulcrum 2
Solent Way
Whiteley
Farham
PO15 7FN

Tel: 0845 055 2022
Fax: 0845 504 0448
Email: hiowhpu@hpa.org.uk

To contact a public health doctor in an emergency out of hours; in the evenings, at weekends or during bank holidays, please call: 02380 77 72 22

Notification by phone only must also be made to the Infection Control Department (Ext. 6774). Out of hours contact the on-call Medical Microbiologist. The Infection Control Department should also be informed of any diseases/pathogens not listed here which present a risk of hospital acquired infection e.g. MRSA, Group A Streptococcus in a wound etc.