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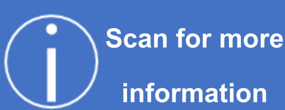
A Guide to the Management of Diarrhoea and Vomiting



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A Guide to the Management of Diarrhoea & Vomiting

Diarrhoea and/or Vomiting (D&V) can be caused by infectious or non-infectious agents; however, all cases of gastroenteritis or D&V should be regarded as infectious unless good evidence suggests otherwise. Although several different organisms can cause D&V outbreaks, norovirus is probably the most common cause.

However, it is important to consider other causes, especially those which are more likely to be spread by contaminated food, such as salmonella.

Common causes of D&V:

Norovirus:

The typical symptoms caused by noroviruses are usually a sudden onset of non- bloody, watery diarrhoea and /or vomiting which can be projectile. However, it is important to note that Norovirus symptoms can display as 'only diarrhoea' or 'only vomiting'. The incubation period of norovirus is 12 to 48 hours, which is the time between catching the virus and developing symptoms. Individuals are most infectious when symptomatic, but it is possible to pass on norovirus or shed the virus, thereby contaminating surfaces, objects or even food, both before developing symptoms and after symptoms have stopped.

Norovirus (vomiting bug) - NHS (www.nhs.uk)

Campylobacter:

Campylobacter is a cause of food poisoning. Most people who get food poisoning from C*ampylobacter* recover fully and quickly but it can cause long-term and severe health problems in some. Children under five and older people are most at risk because they may have weaker immune systems.

Cases will be investigated by local environmental health (EH) departments and UK Health Security Agency (UKHSA).

Food poisoning - NHS (www.nhs.uk)

Cryptosporidiosis:

Cryptosporidiosis is a disease usually caused by direct or indirect contact with infected animals. It can also be caused by contaminated water. People with weak immune systems are likely to be more seriously affected. The most common symptom is mild to severe watery diarrhoea.

Cryptosporidium: public advice - GOV.UK (www.gov.uk)

Giardia:

Giardia infection is an intestinal infection marked by stomach cramps, bloating, nausea, and bouts of watery diarrhoea. Giardia infection is caused by a microscopic parasite that is found worldwide, especially in areas with poor sanitation and unsafe water. Antimicrobial treatment of individual cases forms the basis of control.

Giardiasis - NHS (www.nhs.uk)

Clostridioides difficile:

Clostridioides difficile or otherwise known as C.difficile can be caused by a harmless bacterium that lives within your bowel. This bacterium can be triggered by antibiotics and changes the bacterium balance causing the bowel to have an infection, which leads to diarrhoea and potentially C.difficile.

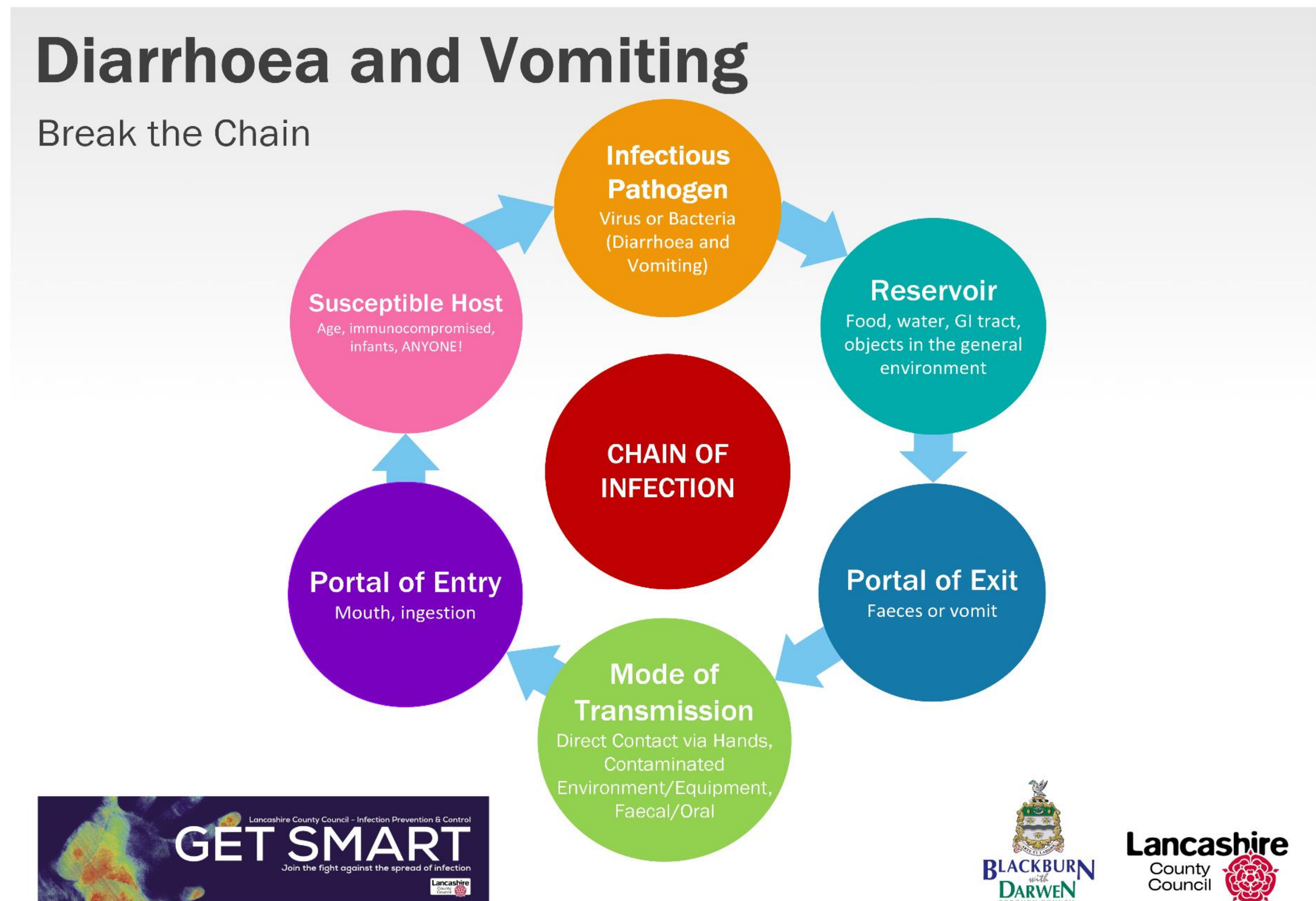
C. difficile can present as colonisation (carriage) or infection (toxin positive), however if the service user is symptomatic of loose stools isolation measures are essential. Service users with C.difficile must be isolated for a minimum of 48 hours with contact precautions and have passed a formed stool prior to easing IPC measures. Antibiotic treatment for C.difficile infection forms the basis for control.

Clostridium difficile (C. diff) - NHS (www.nhs.uk)

General Advice:

Service users must remain isolated with contact precautions until 48 hours after the last episode of Diarrhoea and /or vomiting. Cases should also avoid using swimming pools for two weeks after the first normal stool.

Chain of infection:



Definition of a single case (incident):

An incident is one service or staff user affected by symptoms of diarrhoea and/or vomiting.

Definition of an outbreak:

An outbreak is deemed as 2 or more service users or staff affected by similar symptoms of diarrhoea and/or vomiting within 48 hours of exposure.

Outbreak management checklist:

- If an outbreak of diarrhoea and vomiting is suspected inform UKHSA and Infection Prevention and Control team as they can offer support and advice
- Proportionate reductions in communal activities
- Isolate symptomatic residents (if possible) until 48 hours from latest episode
- If unable to isolate service users, then cohorting can be implemented in the event of an outbreak
- Staff with symptoms must remain off work until they are 48 hours symptom free
- Complete a line listing for both residents and staff (Appendix 4 & 5)
- Stool samples should be obtained as soon as possible to rule out other causes
- Commence stool charts for those affected (Appendix 1)
- Visiting and new admissions should be restricted to exceptional circumstances only (essential care givers and end of life)
- Minimise staff movement and footfall throughout the home
- Ensure clear communication regarding effective handwashing and Personal Protective Equipment (PPE) is covered in handovers/safety huddles
- Restrict movement of staff between affected and non-affected areas
- Declutter for easier cleaning
- Increase cleaning frequency using chlorine-based products
- Treat waste as infectious and dispose of appropriately
- Wash clothes and bedding separately to other laundry using the red alginate bags
- A deep clean will be required with chlorine-based solution, once the setting is 48 hours clear of latest episode and before easing restrictions
- Fluid input /output monitoring is advised
- Encourage fluids. (Consider risk assessment for anyone on fluid restriction)
- Inform GP of any concerns or changes

End of outbreak:

The definition is usually set based on experience, as 48h after the resolution of vomiting and/or diarrhoea in the last known case and at least 72h after the initial onset of the last new case. This is also the point at which terminal cleaning has been completed.

In some cases, it is possible to get a second wave of infection after the outbreak has ended due to environmental contamination, this is why terminal cleaning is so important.

Preventing transmission:

Hand hygiene:

Hands are the main pathway for germ transmission. Good hand hygiene is the most important measure in breaking the chain of infection and preventing health care associated infections. Diarrhoea and vomiting can spread quickly from symptomatic people and contaminated surfaces through faecal oral transmission. Hands should be washed with soap and water as hand gel will not kill the viruses that cause diarrhoea and vomiting. Effective hand hygiene is key to stopping the spread:

- The 5 moments of hand hygiene should be adhered to (Appendix 7)
- Steps of hand hygiene (Appendix 2)
- Ensure weekly hand hygiene audits; https://www.lancashire.gov.uk/media/945529/hand-hygiene-audit-tool.docx

Personal Protective Equipment:

Personal protective equipment must be worn when delivering any care to service users with D&V. These measures would normally include plastic aprons (colour coded if preferred), gloves and strict attention to hand hygiene with soap and water. Staff should also have access to eye and face protection if there is a risk of a body fluid splash into the face. On removal of PPE hands must be washed thoroughly with soap and water.

Ensure that disposable gloves are worn when delivering direct care to all residents and put on a disposable apron when delivering direct care to all residents.

Gloves must be changed after contact with every resident and/or their environment.

Gloves and aprons should be removed inside the resident's room and the hands washed and dried thoroughly prior to leaving the resident's area.

Equipment and supplies in the resident's room to be kept for the sole use of the service user.

Protective clothing i.e., disposable gloves and aprons are intended as single use items. They must be discarded as soon as they have been used once. Do not wash and reuse gloves or aprons. Wash hands immediately after removal.

Exclusion and isolation:

Staff must remain off work must be symptom free for at least 48 hours prior to returning to work.

Service users must remain isolated until 48 hours clear of symptoms and in some cases also passed a formed stool (depending on the reason for D&V). It is recommended that they have their own segregated toilet facilities to help reduce the risk of spread and cross contamination.

Inform the IPC Specialist and Hospital Infection Prevention & Control Team of any residents admitted to hospital up to 48 hours prior to the first resident becoming ill and if any resident(s) require emergency admission to hospital.

Inform Ambulance/Paramedic attending the care home for ANY reason, of the outbreak in home.

Visitors:

- Post a notice informing visitors of the situation (Appendix 6).
- Visitors should be made aware of the correct procedure for washing their hands on entry and exit from the home.

• Proportionate changes to visiting. Each service user should (as a minimum) be able to have one visitor at a time inside the setting and the visitor made aware of the current situation. The visitor does not need to be the same person throughout the outbreak. In some cases, consideration should be given to restricting visitors until the outbreak is over.

• Non-essential services, i.e., Hairdressing, podiatry etc are to be postponed until after the outbreak.

• End-of-life visiting should always be supported.

• Visits outside of the setting should not be restricted to those who are not symptomatic/positive.

Correction of dehydration:

Standard oral rehydration regimen in patients who can tolerate oral fluids should be promoted and documented on a fluid balance chart. For those who cannot tolerate oral fluids subcutaneous or intravenous administration of appropriate fluids is indicated (this would be under the advice of a GP).

For those on fluid restriction maintain a strict fluid balance chart and seek medical advice.

Fluid intake guidance- Appendix 3.

Cleaning:

Should be enhanced during an outbreak of diarrhoea and /or vomiting. Key control measures include increased frequency of cleaning, environmental disinfection and prompt clearance of soiling caused by vomit or faeces.

Effective cleaning and removal of organic soiling prior to decontamination is essential to maximise the effectiveness of surface disinfectants. Disinfection should be carried out with a solution of 0.1% sodium hypochlorite (1000 ppm available chlorine*) considering manufacturer’s guidance with regards to preparation, usage, contact times, storage, and disposal of unused solution. Staff should wear appropriate protective clothing and follow standard infection control precautions.

All communal areas: toilets and bathrooms and high touch points to be thoroughly cleaned at least three times daily.

The cleaning schedule should include all fittings, e.g., door handles, door frames, sinks, taps and handrails.

Use disposable mops and cloths.

National and local colour coding for PPE and cleaning equipment should be adhered to, to avoid cross contamination.

End of outbreak clean:

At the end of the outbreak (48hrs after all staff & residents have been symptom free) a 'Terminal Clean' must be undertaken. This is a thorough clean and disinfection of all areas before normal business resumes.

- All carpeted areas should be steam cleaned.
- All soft furnishings (curtains, cushions, and duvets) should be laundered, or steam cleaned, where fabrics allow.
- Radiator covers removed and behind radiators cleaned.
- Portable fans and extractor air fans cleaned.
- All surfaces including low, mid and high levels e.g., Door frames, picture frames and curtain rails.
- Any furniture that is soiled but cannot be cleaned should be discarded.

Terminal clean checklist:

Online Terminal Clean Checklist Link

Laundry and linen:

Infectious laundry includes laundry that has been used by someone who is known or

suspected to be infectious and/or linen that is contaminated with body fluids and must be laundered separately.

Seal infectious laundry in a red water-soluble bag (appropriate for the washing machine used) immediately, and then place this within an impermeable bag. This should go immediately into the washing machine without opening the bag and on a high temperature wash. Manual sluicing of soiled linen must NOT be performed.

Within care homes, consider processes that will help ensure dirty laundry will not contaminate clean laundry. There must be a dirty to clean flow system in laundry rooms so clean and used laundry are physically separated and ensure hand washing facilities are available where possible to do so.

The laundry must be well ventilated and thoroughly cleaned at least daily. During the outbreak only designated laundry staff should use the laundry and food and drink should never be consumed in this room.

PPE must be worn when dealing with infectious laundry.

Admissions / Transfers:

It may be prudent to restrict admissions to the home temporarily, including respite clients. Transfers back to the home from hospital may be permitted. A risk assessment must be undertaken by the home for any new admissions.

During exceptional periods of increased incidence of diarrhoea and/or vomiting, adversely affecting acute and community NHS hospitals, care homes may be asked to reduce the optimum symptom free criteria from 48 hours to 24 hours before accepting admissions from a hospital experiencing an outbreak.

Post Infection Review:

Online Post Infection Review Link

Testing:

UKHSA will advise if stool samples need to be sent for testing. Only stools of diarrhoea (not formed stools) need to be sent from symptomatic residents and staff as soon as possible after the onset of symptoms. Specimens of vomit should NOT be submitted.
Faecal sample pots and laboratory request forms can be obtained from Environmental Health (EH). A laboratory request form for each sample should be completed as advised by the EH including the antibiotic history. Every laboratory form submitted must have an incident reference number (ILOG/HPZone) recorded on it; UKHSA or the EH will provide you with this number. Please ensure that the patient/sample details are completed on the sample pot label.

Resources and Contacts:

LCC IPC team: infectionprevention@lancashire.gov.uk

UKHSA North-West- 0344 225 0562 clhpt@phe.gov.uk
(This number also serves as the out-of-hours number for UKHSA NW)

LCC Webpage-

Infection prevention and control - Lancashire County Council

Gastrointestinal infections-

FOOD POISONING & GASTRO-INTESTINAL (lancashire.gov.uk) [lancashire.gov.uk]

Department of Health and Social Care. Infection prevention and control: resource for adult social care -

https://www.gov.uk/government/publications/infection-prevention-and-control-in-adult-social-care-settings/infection-prevention-and-control-resource-for-adult-social-care

Appendix 1: Bristol stool chart:

It's important to know what healthy poo looks like.

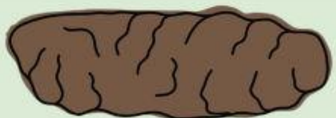
Share this chart with the people you care for to help them identify whether they may be experiencing constipation.

Type 1

Separate hard lumps, like nuts (hard to pass)

Type 2

Sausage-shaped but lumpy



Type 3

Like a sausage but with cracks on the surface

Type 4

Like a sausage or snake, smooth and soft

Type 5

Soft blobs with clear-cut edges

Type 6

Fluffy pieces with ragged edges, a mushy poo

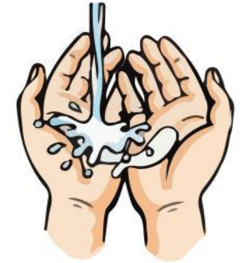
Type 7

Watery, no solid pieces. Entirely liquid

If a poo does not look like type 3 or type 4 it could be constipation. Contact the GP surgery of the person you are caring for.

Appendix 2: Steps to Hand Hygiene

PLEASE WASH YOUR HANDS



1) Wet hands under running water

2) Apply soap and rub palms together

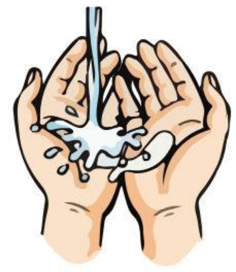
3) Back of hands

4) In between fingers

5) Grip fingers

6) Thumbs

7) Fingertips



8) Rinse hands under running water

9) Dry thoroughly

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Appendix 3: Fluid Intake Guidance

Fluid intake chart according to vessel type				
Vessel type		**Volume**	**Women**	**Men**
Standard water bottle		500mls	3.5	4
Small glass		140mls	11	14
Small cup		150mls	11	14
Large glass		180mls	9	11
Regular mug		200mls	8	10
Large mug		250mls	7	8

Appendix 4: Line listing for Residents

Name of Care Home:

Residents Affected						**Incident No.**		
Name	**Date of Birth**	**Unit or Floor**	**Symptoms e.g. diarrhoea or vomiting**	**Date and time of onset**	**Date of recovery**	**Date sampled submitted**	**Results**	**Additional Information**

Appendix 5: Line Listing for Staff

Name of Care Home ……..

Staff Affected						**Incident No.**		
Name	**Date of Birth**	**job**	**Symptoms e.g. diarrhoea or vomiting**	**Date and time of onset**	**Date of recovery**	**Date sampled submitted**	**Results**	**Additional Information**

Appendix 6: Outbreak Notice

Polite Notice

We are presently experiencing an outbreak of diarrhoea and vomiting within the care home. After seeking specialist advice, proportionate changes have been made to visiting.

Please contact the home by telephone prior to visiting.

If visiting has been pre-arranged, please wash hands on entry and exit of the home.

As soon as this problem is deemed to be over, visiting will return to normal.

Appendix 7: WHO 5 Moments

WHO 5 moments

1 BEFORE PATIENT CONTACT	WHEN? Clean your hands before touching a patient when approaching him/her WHY? To protect the patient against harmful germs carried on your hands
2 BEFORE A CLEAN/ASEPTIC PROCEDURE	WHEN? Clean your hands immediately before any clean/aseptic procedure WHY? To protect the patient against harmful germs, including the patient's own, from entering his/her body
3 AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal) WHY? To protect yourself and the healthcare environment from harmful patient germs
4 AFTER PATIENT CONTACT	WHEN? Clean your hands after touching a patient and her/his immediate surroundings when leaving the patient's side WHY? To protect yourself and the healthcare environment from harmful patient germs
5 AFTER CONTACT WITH PATIENT SURROUNDINGS	WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings when leaving - even if the patient has not been touched WHY? To protect yourself and the healthcare environment from harmful patient germs

Appendix 8: Version Control Information

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